

LOMONOSOV MOSCOW STATE UNIVERSITY
Faculty of Global Studies
RUSSIAN ACADEMY OF SCIENCES
INSTITUTE OF ORIENTAL STUDIES
The Eurasian Center for Big History and System Forecasting
VOLGOGRAD CENTER FOR SOCIAL RESEARCH

**GLOBALISTICS AND
GLOBALIZATION STUDIES
THEORIES, RESEARCH & TEACHING**

Edited by
Leonid E. Grinin,
Ilya V. Ilyin,
and Andrey V. Korotayev



'Uchitel'
Publishing House
Volgograd

ББК 28.02 87.21

Globalistics and Globalization Studies: Theories, Research & Teaching. Yearbook / Edited by Leonid E. Grinin, Ilya V. Ilyin and Andrey V. Korotayev. – Volgograd: ‘Uchitel’ Publishing House, 2013. – 400 pp.

This is the second issue of the new series titled *Globalistics and Globalization Studies*. Globalistics may be regarded as a sort of systemic and more or less integrated ‘core’ within Global Studies. At present Global Studies function in two main dimensions – in the research of global political, economic, cultural and social processes, on the one hand, and in the realm of teaching – manifesting themselves in the creation of various Global Studies programs and courses for university students who learn to see the world in its entirety and variety. The second dimension is immensely important as the contents of such programs and courses may determine how the world will be comprehended by those people who may decide its fate in a decade or two. This dualistic nature of Global Studies has determined the general direction of our anthology that comprises both the theoretical dimension of Global Studies and their application to the teaching process.

The anthology consists of three parts presenting a wide range of views on the meaning of the contemporary epoch, the past and the future of some important global processes as well as the problems and successes in the teaching process of Global Studies. Part 1. *Globalization in Historical Retrospective*. Part 2. *Globalistics, Global Studies, and Global Processes*. Part 3. *Teaching Global Studies*.

In the present anthology one can find perceptions of globalization by a number of famous scholars from different countries of the world (Ervin Laszlo, Christopher Chase-Dunn, and others), but one can also get to know rather peculiar visions of globalization by Russian scientists and educators.

‘Uchitel’ Publishing House
143 Kirova St.,
400079 Volgograd,
Russia

ISBN 978-5-7057-3619-5
Volgograd 2013

© ‘Uchitel’ Publishing House, 2013

Contents

Introduction. Global Studies from Theories to Teaching	5
---	---

Part I. GLOBALIZATION IN HISTORICAL RETROSPECTIVE

<i>Leonid E. Grinin and Andrey V. Korotayev.</i> Origins of Globalization	8
<i>Christopher Chase-Dunn.</i> Continuities and Transformations in the Evolution of World-Systems	36
<i>Tony Harper.</i> The Trajectory of the World System over the Last 5000 Years	56
<i>Leonid E. Grinin and Anton L. Grinin.</i> Global Technological Transformations ...	98
<i>Alexander A. Sagomonyan.</i> Spanish Issue in the Global Confrontation of the Great Powers on the Threshold of the Cold War	129

Part II. GLOBALISTICS, GLOBAL STUDIES, AND GLOBAL PROCESSES

<i>Ilya V. Ilyin and Arkadi D. Ursul.</i> Global Studies in Modern Science	146
<i>Olga G. Leonova.</i> Categories, Models and Forecast of the Global Configuration ...	166
<i>Tatyana L. Shestova.</i> Methodological Foundations of Global History	179
<i>Galina A. Drobot.</i> The Problem of Universal Values in World Politics	184
<i>Arno Tausch.</i> Global Terrorism and World Political Cycles	191
<i>Ilya V. Ilyin and Alexander S. Rozanov.</i> The Impact of Globalization on the Formation of the Global Political System	218
<i>Patrick A. Taran.</i> Globalization, Migration and Labour: Imperatives for a Rights Based Policy	223
<i>Ivan A. Aleshkovski.</i> Illegal Immigration as a Structural Factor of Global Development	243
<i>Ervin Laszlo.</i> Culture and the Sustainability of the Global System	257

Part III. TEACHING GLOBAL STUDIES
Section 1. Teaching Global Studies: Reflections and Experiences

- Jean-Marc Coicaud.* Reflections on Some of the Challenges of Global Affairs as an Academic Field 264
- Aigul Kulnazarova.* Teaching Human Rights in Global Perspectives: A Shared View and Experience from the School of Global Studies 272
- Ken Bausch, Janet McIntyre-Mills, Tony Made, Kelly Mackenzie, Charles Morse, and Gayle Underwood.* Striving for Sustainable Global Democracy Through a Group Decision-Making Process: A Critical Review of an Online Course to Model Transformative Praxis 291

Section 2. Teaching Materials Samples

- Igor I. Abylgaziev, Ilya V. Ilyin, and Ruslan R. Gabdullin.* Introduction to the History and Methodology of Global Studies 309
- Ilya V. Ilyin, Ruslan R. Gabdullin, and Alexey V. Ivanov.* Global Processes and Systems 318
- Alexander N. Chumakov.* Studying of Globalization: Step by Step 321
- Leonid E. Grinin and Andrey V. Korotayev.* Political Globalistics 335

Section 3. Global Studies Programs and Syllabi around the World

- University of Graz and Other Eighteen Universities' Curricula for Global Studies: Comparisons and Improvements 348
- University of Leipzig 385
- Royal Melbourne Institute of Technology (RMIT University) 387
- Lomonosov Moscow State University: Faculty of Global Studies 390
- Shanghai University: The Postgraduate Program of Global Studies 393
- Contributors to the volume 396

Introduction. Global Studies from Theories to Teaching

Globalization has enormously expanded our possibilities to look at various phenomena and processes in global perspective. In general, one may speak about the formation of a new paradigm connected with such a global approach. The emergence of Global Studies as an academic discipline reflects those changes. Such an approach demands a reconsideration of well-established views both in the field of research and in the field of teaching.

At present Global Studies function in two main dimensions – in the research of global political, economic, cultural and social processes, on the one hand, and in the realm of teaching – manifesting themselves in the creation of various Global Studies programs and courses for university students who learn to see the world in its entirety and variety. The second dimension is immensely important as the contents of such courses may determine how the world will be comprehended by those people who may decide its fate in a decade or two.

This dualistic nature of Global Studies has determined the general direction of our anthology that comprises both the theoretical dimension of Global Studies and their application to the teaching process.

We plan to devote the subsequent volume of our anthology to the consideration of the experiences in the teaching of Global Studies to an even higher degree than it can be seen in the present volume.

This is the second issue of our anthology. In some respects its structure continues the tradition outlined by its first issue (Grinin, Ilyin, and Korotayev 2012) – for example, you can find in both issues the combination of analysis of globalization in its historical dimension and in its modern manifestations. But in some other respects this structure is rather different – first of all, as regards the pedagogical dimension introduced in the present volume for the first time.

The volume is entitled *Globalistics and Globalization Studies*. However, why Globalistics, not Global Studies? The notion of *Globalistics* first appeared in Russia, this is a translation of the Russian term *globalistika*; however, we believe it might be useful within the English Global Studies thesaurus. We are sure that the introduction of this term is justifiable, because it expresses the vision of systemic and epistemological unity of global processes, the presence of some relatively autonomous field with its own research subject. Morphologically this term is identical with such well-established designations of academic disciplines as Economics, Linguistics, Physics, and so on.

Globalistics emerged in the USSR in the 1970s and 1980s first of all as a result of philosophic and scientific scrutiny of the global problems of humankind (note that Globalistics as an integral academic discipline, with its own name and research agenda,

emerged in Russia/the USSR earlier than in any other country of the world). As this research was conducted within quite a rigorous and orderly philosophical framework, in contrast with the Western Global Studies, the Soviet/Russian Globalistics acquired certain systematic qualities of a rather coherent academic field from the very beginning. We believe that this turned out to be a significant advantage of the Russian version of the study of global processes and phenomena. Note also that Globalistics has been developing as a synthesis of various academic disciplines (that is well in the mainstream of the contemporary scientific trends); on the other hand, academics working in this field have been trying to impart to it a certain conceptual unity. That is why Globalistics (in contrast with some other philosophical schools) experienced not collapse but flourishing in the post-Soviet history of Russia. In the 1990s and 2000s it became one of the most productive research directions in Russia. One may, for example, recollect that the first encyclopedias of Globalistics/Global Studies were published just in Russia (Mazour and Chumakov 2003, 2006; Mazour, Chumakov, and Gay 2006). Another example is represented by the establishment (eight years ago) of the Faculty of Global Studies (FGS MSU) within Moscow State University; this is one of the few academic and educational bodies specializing in the realm of Globalistics.

Globalistics is a cross-disciplinary integrative field of research. It aims at investigating global problems in all their facets: from causes, laws and tendencies of global processes through an insight into positive and negative effects to the survival of humankind and the protection of the biosphere. Thus, Globalistics may be regarded as a sort of systemic and more or less integrated 'core' within Global Studies.

Hence, due to the fact that Globalistics appears to be a more integral and systemic direction than Global Studies, it seems possible that this term will be able to fill a certain lacuna in the English academic thesaurus. Basing ourselves on this point (but also wishing to reflect some specific features of development of Global Studies in Russia) we have decided to name the present anthology *Globalistics and Globalization Studies*.

Some articles presented in this anthology have already been published in various academic periodicals and almanacs (though some of them are published here for the first time).

The volume is subdivided into three parts.

Part 1 (*Globalization in Historical Retrospective*) comprises articles analyzing such extremely important long-term global processes as origins of globalization itself, world-system evolution, or global technological transformations.

Part 2 (*Globalistics, Global Studies, and Global Processes*) comprises articles that consider fundamental issues of Global Studies such as their place in modern science, forecasts of the global reconfiguration, methodology of global history, problem of universal values in world politics, or sustainability of global system.

Part 3 (*Teaching Global Studies*) is devoted to pedagogical issues. The present-day world is the world of various emergent networks, the world of self-organization. The need to teach global knowledge called into being the **Global Studies Consortium**. This is a group of university programs in Global Studies seeking to collaborate in teaching and research. At least 40 universities have participated in the meetings of this consortium. The Consortium's main contribution to date has been to increase and deepen the informal ties between people working in the field of global studies. This consortium aims at:

- sharing curricula and ideas about teaching programs;
- exchanging teaching materials, including lectures and reading lists;
- facilitating cooperative teaching projects, such as distance learning, on both bilateral and multilateral levels;
- surveying student's career paths;
- sharing information about employment and internships for students;
- encouraging student and faculty exchange agreements.

The Consortium first met in Santa Barbara in 2007, where its mission statement was written. Since then it held meetings in Tokyo in 2008, Leipzig in 2009, Santa Barbara again in 2010, Shanghai in 2011, Melbourne in 2012, and Moscow in June 2013.

The final part has brought together descriptions of various experiences of the teaching of Global Studies as well as diverse teaching materials coming mostly from the members of the Global Studies Consortium. This part in its turn is divided in three sections.

Acknowledgements

The editors would like to express the deep gratitude to Elena Emanova and Kseniya Ukhova for their invaluable assistance in the process of preparation of this anthology.

References

- Grinin, L., Ilyin, I., and Korotayev, A. 2012. (Eds.).** *Globalistics and Globalization Studies*. Moscow – Volgograd: Moscow University – Uchitel.
- Mazour, I. I., and Chumakov, A. N. 2003. (Eds.).** *Globalistics*. Encyclopedia. Moscow: Raduga. *In Russian*.
- Mazour, I. I., and Chumakov, A. N. 2006. (Eds.).** *Globalistics: International Cross-Disciplinary Dictionary*. Moscow: Elima; Piter. *In Russian*.
- Mazour, I. I., Chumakov, A. N., and Gay, W. 2006. (Eds.).** *Global Studies. International Encyclopedic Dictionary*. Moscow; St-Petersburg; New-York: Dialog; Elima; Piter.

Part I. GLOBALIZATION IN HISTORICAL RETROSPECTIVE

Origins of Globalization

Leonid E. Grinin and Andrey V. Korotayev

In this article we analyze processes and scales of global integration in historical perspective, starting with the Agrarian Revolution. We connect the main phases of historical globalization with the processes of the development of the Afroeurasian world-system. In the framework of the Afroeurasian world-system the integration began several millennia BCE. In it the continental and supracontinental links became so developed long before the Great Geographic Discoveries and thus they could well be denoted as global (albeit in a somehow limited sense). Among some researchers there is still a tendency to underestimate the scale of those links in the pre-Industrial era; thus, it appeared necessary to provide additional empirical support for our statement. It also turned necessary to apply a special methodology (which necessitated the use of the world-system approach). We analyze some versions of periodization of globalization history. We also propose our own periodization of the globalization history basing on the growth of the scale of intersocietal links as an indicator of the level of globalization development.

Keywords: *globalization, world-systems, Afroeurasian world-system, World System, global communication, cycles of political hegemony, Agrarian revolution, Industrial revolution, technologies.*

On Goals and Tasks of the Article

In the framework of this article we attempt to solve the following tasks:

1) to demonstrate that it was already a few thousand years ago (at least since the formation of the system of long-distance large-scale trade in metals in the 4th millennium BCE) when the scale of systematic trade relationships overgrew significantly the local level and became regional (and even transcontinental in a certain sense);

2) to show that already in the late 1st millennium BCE the scale of processes and links within the Afroeurasian world-system did not only exceed the regional level, it did not only reach the continental level, but it also went beyond continental limits. That is why we contend that within this system marginal systemic contacts between agents of various levels (from societies to individuals) may be defined as transcontinental (note that here we are dealing not with overland contacts only, as since the late 1st millennium BCE in some cases we confront oceanic contacts – the most salient case is represented here by the Indian Ocean communication network);

Globalistics and Globalization Studies 2013 8–35

3) to demonstrate that even prior to the Great Geographic Discoveries the scale of the global integration in certain respects could be comparable with the global integration in more recent periods. In particular, demographically, even 2000 years ago the really integrated part of the humankind encompassed 90 per cent of all the world population.¹

Our analysis suggests that the abovementioned marginal level of integration within the framework of the Afroeurasian world-system was not something insignificant or virtual; it influenced substantially the general direction of development, it accelerated significantly the development of many social systems whose rate of development would have been otherwise much slower. It is rather clear that it took signals rather long time to get from one end of the world-system to another – actually, many orders of magnitude longer than now – but still such signals went through the pre-Modern Afroeurasian world-system, and they caused very significant transformations. However, this speed was not always really low. For example, the bubonic plague pandemic (that killed dozens million) spread from the Far East to the Atlantic Ocean within two decades (in the 1330s and 1340s [see, e.g., McNeill 1976; Dols 1977; Borsch 2005]). Such fast and vigorous movements were connected directly with growing density of contacts and their diversification that opened way to rapid diffusion of pathogens. Note that the Mongol warriors went from the Pacific zone to the Atlantic zone of Eurasia with a rather similar speed.

The article also deals with a number of other issues that are important both for the world-system approach and for the study of the globalization history – such as the typology of the world-system links, special features of the Afroeurasian world-system, the possible dating of the start of its formation, factors of its transformation into the planetary World System, and so on.

Introduction. On Periods of Historical Globalization

The present article has been prepared within an emerging field that can be denoted as ‘History of Globalization’. This aspect of Globalization Studies deals with the historical dimension of globalization. Its main goal is to analyze processes and scales of global integration in historical perspective, starting with the Agrarian Revolution. Those integration processes (depending on the position of a particular researcher) may be regarded as preparatory stages of globalization, or as its initial phases. There are already quite a few studies on this subject (see, e.g., Foreman-Peck 1998; Held *et al.* 1999; O’Rourke and Williamson 1999; Hopkins 2002, 2003; Sharp 2008; Lewis and Moore 2009 *etc.*), however, there are still many points that need further research, clarification, and new interpretation.

Most students of globalization do not doubt that its origins are to be traced more or less deep in history, though there are rather diverse views as regards the exact starting point.² Yet, it is clear that it is very productive to search for the origins of globalization in the depths of history. It is no coincidence at all that the growing interest in globalization has promoted interest in the trend often denoted as ‘historical dimension of globalization’. Among such movements it is most worth noting *Global History* whose heart and novelty, according to Bruce Mazlish and Akira Iriye (Mazlish and Iriye 2005: 19), is history of

¹ Of course, this number would be a bit lower if high estimate of 50 million for the pre-Columbian Americas holds true.

² Some scholars say that it started already in the Stone Age, some others maintain that it began in the 3rd millennium BCE; there also such datings as the Axial Age of the 1st millennium BCE, the Great Geographic Discoveries period, the 19th century, 1945, or even the late 1980s. Each of those datings has certain merits. For their review see, e.g., Tracy 1990; Menard 1991; Bentley 1999; O’Rourke and Williamson 1999, 2000; Lewis and Moore 2009; Conversi 2010; Held *et al.* 1999; Chumakov 2011; Kelbessa 2006: 176; Pantin 2003, *etc.*

globalization. We contend that in a certain sense almost the whole World History can be regarded as a history of movement toward the increasing size of social systems, their integration, and globalization in general. Hereby, in history and sociology the investigation is broadening with respect to the historical development of globalization processes (see Grinin 2012a; Korotayev 2007, 2008; Grinin and Korotayev 2009a, 2009b, 2012).

According to different authors, globalization has been going on since the first movement of people out of Africa into other parts of the world, or since the 3rd millennium BC (when according to Andre Gunder Frank the World System emerged [Frank 1990, 1993; Frank and Gills 1993]), or since the so-called Axial Age (Jaspers 1953) in the 1st millennium BC, or only from the Great Geographical Discoveries, or in the 19th century, or after the year 1945, or only since the late 1980s (see also Footnote 1). Each of these dates has its own sense. It is quite reasonable to discuss the problem in the context of whether one can speak about globalization before the start of the Great Geographical Discoveries, as a result of which the idea of the Earth as a globe exceeded the limits of the opinion of a group of scientists and became practical knowledge (Chumakov 2011). But, notwithstanding this point of view, there is no doubt that historical dimension of globalization is quite challenging (for more detail see Grinin 2011).

The main task of this article is connected with the integration that began a few thousand years BCE in the framework of the Afroeurasian world-system and whose links became so developed long before the Great Geographic Discoveries that they could well be denoted as global (albeit in a somehow limited sense). However, among some researchers there is still a tendency to underestimate the scale of those links in the pre-Industrial era; thus, it appeared necessary to provide additional empirical support for our statement. It also turned necessary to apply a special methodology (which necessitated the use of the world-system approach).

There are quite a few periodizations of the history of globalization. The most widespread type is represented by trinomial periodizations that appear to be the most logical (and, *e.g.*, Gellner [1988] believes that three periods is the optimum number for a periodization).

An example looks as follows (Hopkins 2003, *e.g.*, pp. 3–7; see also Bayly 2004): (1) Archaic globalization; (2) Early modern globalization;³ (3) Modern globalization.

Trinomial periodizations are also used by those who start the globalization with the period of the Great Geographic Discoveries. For example, Thomas L. Friedman (2005) divides the history of globalization into three periods: Globalization 1 (1492–1800), Globalization 2 (1800–2000) and Globalization 3 (2000 – present). He states that Globalization 1 involved the globalization of countries, Globalization 2 involved the globalization of companies and Globalization 3 involves the globalization of individuals.

However, an apparent convenience of trinomial periodizations does not necessarily mean that they are more relevant. We believe that the number of periods within the given periodization should be rather determined by the contents of the process in question.

There are periodizations constructed on other grounds – for example, the one developed by Chumakov (2011: 166–167) who worked out the periodization of the evolution of global links on the basis of their scale (which reflects rather logically the general trend toward the growth of this scale): 1) ‘Period of Fragmentary Events’ (till 5000 BP); 2) ‘Period

³ This phase is also denoted as ‘proto-globalization’; but this notion does not appear quite appropriate.

of Regional Events' (till the 15th century CE); 3) 'Period of Global Events' (till the mid-20th century). The 4th period ('Period of Cosmic Expansion') in this periodization starts in 1957. This periodization looks interesting, but a few points here need serious clarifications and re-interpretations. First of all, as will be demonstrated below, already starting with the second half of the 1st millennium BCE, many events did not only overgrow regional levels, but had continental and transcontinental scales. Already in the previous period some events had regional-continental scales. Evidence in support of this approach is presented below, whereas its brief exposition can be found in Tables 1 and 2.

In the present article we do not try to describe the whole history of globalization in detail; however, the description of our vision of its main phases may be found in Table 1. In particular, we are basing ourselves on the following observation: though the Great Geographic Discoveries made it possible to transform intersocietal links into global in a full sense of this notion, still the period between 1500 and 1800 CE was not fully global yet due to a number of points. Firstly, not all the territories of the Earth had been discovered (Antarctica being the most salient among them); secondly, many societies (in Australia, Oceania, some parts of Inner Africa) had not been involved into global contacts in any significant way; thirdly, some all the large countries of East Asia quite consciously isolated themselves from the rest of the world; fourthly, the volume of trade could hardly be called global (see O'Rourke and Williamson 1999, 2000 for more detail on this point). In connection with this, we denote the period from the late 15th century to the early 19th century as a special period of oceanic (intercontinental) links. Chronologically this period is almost identical with the one that was identified by Hopkins (2003: 3–7) and Bayly (2004) as a period of proto-globalization or early modern globalization; however, we believe our name of this period reflects the scale and character of links in this period in a more accurate way. Indeed the period starting in the early 19th century may well be denoted as 'a very big globalization bang' (O'Rourke and Williamson 2000). That is why we denote links in this period as 'global'. This period continued till the 1970s, after which the level of intersocietal interconnectedness began to grow very fast (especially since the early 1990s). It was during that period when it was recognized that we had entered a new period of interconnectedness that was denoted as 'globalization' (*mondialisation* in French). In order to distinguish this period from the previous we have denoted it as 'planetary', which reflects, firstly, the implications of the space exploration (these are the space/satellite communication technologies that secure unprecedented opportunities of communication with respect to its speed, density, and diversity), secondly, we observe the involvement into the globalization process of those societies (in Asia, Africa, and other regions) that were weakly connected with the rest of the world, where the links were rather limited, and those links were often created in a coercive way. Thirdly, this reflects the fact that the modern globalization has not realized all its potential, that this process continues, and when it is finished in the 21st century, the level of interrelatedness will be truly planetary, when almost any place in the world will be connected with almost any other place.

Out of the seven periods outlined above (and below in Table 1), all except the first and second refer to historical globalization:

Table 1. Growth of globalization level in historical process

<i>Type of spatial links (globalization level)</i>	<i>Period</i>
Local links	1) Till the 7 th – 6 th millennium BCE
Regional links	2) From the 7 th – 6 th millennium till the second half of the 4 th millennium BCE
Regional-continental links	3) From the second half of the 4 th millennium BCE to the first half of the 1 st millennium BCE
Transcontinental links	4) From the second half of the 1 st millennium BCE to the late 15 th century CE
Oceanic (intercontinental) links	5) From the late 15 th century to the early 19 th century
Global links	6) From the early 19 th century to the 1960s and 1970s
Planetary links	7) From the last third of the 20 th century to the mid-21 st century

Note: This table does not take into account the information networks of the technological diffusion that acquired a transcontinental scale from the very time of the emergence of the Afroeurasian world-system (Korotayev 2005, 2006b, 2007, 2008, 2012; Korotayev, Malkov, and Khaltourina 2006a, 2006b; Grinin and Korotayev 2009b, 2012). See some other qualifications below.

In Table 2 we describe the correlations in historical globalization between the globalization periods and such characteristics as spatial links, political organization and level of technology:

Table 2. Correlation between spatial links, political organization and level of technology⁴

<i>Type of socio-spatial links</i>	<i>Period</i>	<i>Forms of political organization</i>	<i>Level of technology (production principles and production revolutions)</i>
1	2	3	4
Local links	Up to the second half of the 4 th millennium BCE (≈ 3500 BCE)	Pre-state (simple and medium complexity) political forms, the first complex polities	Hunter-gatherer production principle, beginning of the agrarian production principle
Regional links	The second half of the 4 th millennium BCE – the first half of the 1 st millennium BCE (≈ 3500–490 BCE)	Early states and their analogues; the first empires	The second phase of the Agrarian revolution; agrarian production principle reaches its maturity
Continental links	The second half of the 1 st millennium BCE – the late 15 th century CE (≈ 490 BCE – 1492 CE)	Rise of empires and first developed states	Final phase of the agrarian production principle

⁴ On production revolutions and production principles see Grinin and Grinin in the present volume.

1	2	3	4
Intercontinental (oceanic) links	The late 15 th century – the early 19 th century (≈ 1492–1821)	Rise of developed states, first mature states	The first phase of the industrial production principle and Industrial revolution
Global links	The early 19 th century – the 1960s and 1970s	Mature states and early forms of supranational entities	The second phase of the Industrial revolution and the final phase of the industrial production principle
Planetary links	Starting from the last third of the 20 th century	Formation of supranational entities, washing out of state sovereignty, search for new types of political unions and entities, planetary governance forms	The start and development of Cybernetic revolution whose second phase is forecasted for the 2030s and 2040s

Our analysis suggests that the abovementioned marginal level of integration within the framework of the Afroeurasian world-system was quite important and not something insignificant or virtual; it influenced substantially the general direction of development, it accelerated significantly the development of many social systems whose rate of development would have been otherwise much slower. It is rather clear that it took signals rather long time to get from one end of the world-system to another – actually, many orders of magnitude longer than now – but still such signals went through the pre-Modern Afroeurasian world-system, and they caused very significant transformations. However, this speed was not always really low. For example, the bubonic plague pandemic (that killed dozens million) spread from the Far East to the Atlantic Ocean within two decades (in the 1330s and 1340s [see, *e.g.*, McNeill 1976; Dols 1977; Borsch 2005]). Such fast and vigorous movements were connected directly with growing density of contacts and their diversification that opened way to rapid diffusion of pathogens. Note that the Mongol warriors went from the Pacific zone to the Atlantic zone of Eurasia with a rather similar speed.

I. Afroeurasian World-System: A General Overview

For the analysis of the globalization origins one may rely on traditions of various schools of thought. However, we believe that the world-system approach is one of the most promising in this respect, as it was originally constructed to solve this kind of tasks. This approach may be used much wider in this area due to its certain merits. First of all, this approach is systemic and capable to analyze processes at very wide temporal and spatial scales. As Chase-Dunn and Hall (1997) emphasize, within this approach the main unit of analysis is not a particular society, or a particular state (as is usual in ordinary historical studies), but a world-system. Secondly, the object of the world-system analysis is in many respects identical with the one of Global Studies. Thirdly, taking into consideration the interdisciplinary character of Global Studies, the integration

of new approaches into them can only enrich them. As regards the present article, the world-system approach, its issues and terminology appear rather suitable for the achievement of its goals.

The world-system approach originated in the late 1960s and 1970s due to the works by Braudel, Frank, Wallerstein, Amin, and Arrighi, and was substantially developed afterwards (see, *e.g.*, Braudel 1973; Frank 1990; 1993; Frank and Gills 1993; Wallerstein 1987; Chase-Dunn and Hall 1994, 1997; Arrighi and Silver 1999; Amin *et al.* 2006). Its formation was connected up to a considerable degree with the search for the actual socially evolving units that are larger than particular societies, states, and even civilizations, but that, on the other hand, have real system qualities.

The most widely known version of the world-system approach was developed by Immanuel Wallerstein (1974, 1987, 2004), who believes that the modern world-system was formed in the 'long 16th century' (c. 1450–1650). According to him, before that there had been a very large number of other world-systems. Those world-systems are classified by Wallerstein into three types: 1) *minisystems*; 2) *world-economies*; 3) *world-empires*. Minisystems were typical for foragers. Two other types (world-economies and world-empires) are typical for agrarian (and especially complex and supercomplex agrarian) societies.

World-economies are politically decentralized systems of societies interconnected by real economic ties. In the meantime, Wallerstein uses the so-called 'bulk goods criterion' to identify the 'reality' of economic ties, that is those ties should be manifested in massive flows of such basic goods as wheat, ore, cotton, tools, mass consumption commodities, *etc.* If the trade between two regions is limited to exchange of 'preciosities', then, according to Wallerstein, we have no grounds to consider them parts of one world-system in general, and one world-economy in particular.

If a world-economy gets centralized politically within one empire, then, according to Wallerstein, we should speak about a world-empire, not world-economy. In general, world-economies were characterized by a higher socioeconomic dynamism than world-empires, but almost all the pre-capitalist world-economies were sooner or later transformed into world-empires (world-empires also frequently disintegrated and could be replaced with world-economies, but this was just a beginning of a new cycle ending with the formation of a new world-empire in place of the world-economy).

According to Wallerstein, there was just one significant exception from this rule that was analyzed in considerable detail in his first 'world-system' monograph (Wallerstein 1974). In 'the long 16th century' the Western European world-economy blocked the tendency toward its transformation into a world-empire and experienced a capitalist transformation that led to the formation of a world-economy of a new, capitalist type. This new world-system experienced a rapid expansion already in 'the long 16th century' and, after a phase of relative stabilization (in the second half of the 17th century and 18th century), it encompassed the whole world in the 19th century.

Though the version of the world-system approach developed by Andre Gunder Frank (1990, 1993; Frank and Gills 1993) is much less known than Wallerstein's version, we believe it might be of even more scientific value. Frank brings our attention to the point

that within Wallerstein's approach the very notion of 'world-system' loses much of its sense. Indeed, if the pre-capitalist world consisted of hundreds of 'world-systems', it is not quite clear why each of them should be denoted as a 'WORLD-system'.

Andre Gunder Frank's approach is in a way more logical. He contends that we should speak only about one World System (and he prefers to denote it using capital initial letters). According to Frank, the World System originated many millennia before the 'long 16th century' in the Near East. This idea is expressed rather clearly in the title of the famous volume edited by him in cooperation with Barry Gills – *The World System: Five Hundred Years or Five Thousand?* (Frank and Gills 1993). This World System had gone through a long series of expansion and contraction phases until in the 19th century it encompassed the whole world.

We believe the synthesis of the both main versions of the world-system approach is quite possible, and in the present article we will analyze the processes that contributed to the emergence and growth of the Afroeurasian world-system that may be considered as the direct predecessor of the modern planetary World System. It was already more than 2000 years ago when the Afroeurasian world-system became connected from its one end to the other with trade links; by the late 13th century it had reached its culmination point (for the pre-capitalist epoch), since the late 15th century it started its explosive expansion and between the 16th and 19th centuries it became a truly planetary World System.⁵

In addition to the Afroeurasian world-system, there were several world-systems on the Earth (in the New World, Oceania, and Australia) prior to the transformation of the Afroeurasian world-system into the modern planetary World System (e.g., Grinin and Korotayev 2012a). However, from the time of its formation and in course of the subsequent millennia the Afroeurasian world-system was constantly leading on the global scale, it had the most salient tendency toward expansion, growth of complexity, and the highest growth rates. It is important that already in the early 1st millennium CE it encompassed more than 90 per cent of the world population (Durand 1977: 256).

The notion of 'world-system' (as it is used in the present article) can be defined as *a maximum set of human societies that has systemic characteristics, a maximum set of societies that are significantly connected among themselves in direct and indirect ways. It is important that there are no significant contacts and interactions beyond borders of this set, there are no significant contacts and interactions between societies belonging to the given world-system and societies belonging to the other world-systems.* If there are still some contacts beyond those borders, then those contacts are insignificant, that is, even after a long period of time they do not lead to any significant changes within the world-system – for example, the early Scandinavians' travels to the New World and even their settlement there did not result in any significant change either in the New World, or in Europe (see, e.g., Slezkin 1983: 16).

However, this definition appears to be the most appropriate for the period when there were a few world-systems on our planet. For the modern unique World System its definition turns out to be closer to such notions as 'planetary system', 'global system', or 'humankind as a system'.

⁵ Correspondingly, when we speak about one out of a few world-systems, we use the term 'world-system', whereas we use Frank's notion of 'the World System' when we speak about the unique global system covering the whole our planet.

Important peculiarities of the Afroeurasian world-system stemmed from its scale and very ancient age, as well as from some specific geographic conditions:

- *A special complexity (supercomplexity) of its structure* was determined by the size of its territory and the population concentration patterns. A very large world-system, such as the Afroeurasian world-system, is a sort of *supersystem that integrates numerous subsystems*, such as states, stateless polities, various spatial-cultural and cultural-political entities, like civilizations, alliances, confederations, cultural areas *etc.*

- *The primary/autochthonous character of the major part of social and technological innovations.* All the numerous borrowings and technological diffusion currents went almost exclusively within Afroeurasian world-system due to the enormous diversity of the available sociopolitical and economic conditions; sea communications and landscapes that allowed major flows of information, technologies, and commodities to reach sooner or later all the major Afroeurasian world-system centers. This secured a certain (albeit imperfect) synchronization of processes in different parts of Afroeurasian world-system, raised the general speed of its development, as well as its stability.

- *An especially high speed of changes.* The larger and the more diverse the world-system, the higher the speed of its development (see, *e.g.*, Kremer 1993; Korotayev, Malkov, and Khaltourina 2006a; Markov and Korotayev 2007; Korotayev 2007, 2008, 2009, 2012). As a result, within the Afroeurasian world-system (as the largest world-system of our planet) the growth rates were the highest, as the contacts became more and more dense and the evolution of individual social systems was influenced more and more by macroevolutionary innovations diffusing throughout the Afroeurasian world-system. This led to the fact that within the Afroeurasian world-system the speed of development was significantly higher than in smaller world-systems (Diamond 1999).

- *Succession of qualitative transformations* that changed the Afroeurasian world-systems structure due to a high speed of development and substantial continuity in its development. The Near Eastern center emerged first, South Asian and Far Eastern centers formed later; then one could observe the emergence of the European center that eventually became leading.

- *An especially high role of barbarian (and especially nomadic) periphery* was connected with certain peculiarities of climate and landscape, especially with the Eurasian Steppe Belt. For quite a long time, the development of the Afroeurasian world-system proceeded up to a very considerable extent through the integration of its periphery, the transformation of a number of peripheral societies into semiperipheral, as well as the transformation of a part of semiperipheral societies into core ones (Hall, Chase-Dunn, and Niemeyer 2009). As a result, the Afroeurasian world-system structure constantly changed, whereas the information and merchandise flows, as well as military-political interactions became more and more complex.

- *An especially important role of water communications*, due to them a number of communication networks with particular high levels of contact density emerged (the Mediterranean network, the Baltic Sea network, the Indian Ocean network, *etc.*). The Afroeurasian world-system growth proceeded up to a considerable extent through the incorporation of coastal areas suitable for colonization and trade and their hinterlands (*e.g.*, Phoenician, or Greek colonization, Sawahili cities along the East African coast, *etc.*).

A brief overview of the main phases of the Afroeurasian world-system's evolution

Processes of intersocietal interaction started several dozens thousand years ago. That is why it appears impossible to speak about anything like perfect isolation even with respect to Paleolithic cultures. Already for the Upper Paleolithic there are numerous archeological, paleolinguistic and other data on information-cultural and trade-material contacts covering hundreds and even thousands kilometers (*e.g.*, Korotayev and Kazankov 2000; Korotayev 2006a; Korotayev *et al.* 2006). For example, the Mediterranean sea shells are found at the Paleolithic sites of Germany, the Black Sea shells are discovered at the Mezine site on a bank of the Desna River 600 kilometers far from that sea (*e.g.*, Clark 1952; Rummyantsev 1987: 170–171). However, evidently, we observe a new phase of intersocietal integration after the start of the Agrarian Revolution (see about it: Childe 1952; Reed 1977; Harris and Hillman 1989; Cohen 1977; Rindos 1984; Cowan and Watson 1992; Ingold 1980; Cauvin 2000; Mellaart 1975, 1982; Smith 1976; Grinin 2007b).

In the 10th – 8th millennia BCE the transition from foraging to food production took place in the West Asia (in the Fertile Crescent area), as a result of which one could observe a significant growth of complexity of respective social systems, which marked the start of the formation of the Afroeurasian world system. **In the 8th – 5th millennia BCE** one could observe the Afroeurasian world-system's expansion and the formation of rather effective informational, cultural, and even trade links between its parts.

In the 4th and 3rd millennia first in Southern Mesopotamia, and then in most other parts of Afroeurasian world-system one could observe the formation of a large number of cities. Writing systems, large-scale irrigation agriculture, new technologies of tillage developed. First early states and civilizations formed on this basis. A large number of very important technological innovations were introduced in most parts of Afroeurasian world-system: wheel, plow, pottery wheel, harness, *etc.* The emergence and diffusion of the copper and bronze metallurgy increased military capabilities and contributed to intensification of the regional hegemony struggles. New civilization centers emerged outside the Middle Eastern core (*e.g.*, the Minoan and Harappan civilization).

In the late 3rd and the 2nd millennia BCE in Mesopotamia one could observe the succession of such large-scale political entities as the Kingdom of Akkad, the 3rd Dynasty of Ur, the Old Babylonian and Assyrian Kingdoms. The hegemony struggle in the core of the Afroeurasian world-system moved to a new level with the clash between the New Kingdom of Egypt and the Hittite Empire. The political macroprocesses were exacerbated by invasions from tribal peripheries (the Gutians, Amorites, Hyksos, *etc.*) with a gradual increase of the role of nomadic herders in such invasions. In the 2nd millennium BCE a new Afroeurasian world-system center emerged in the Far East with the formation of the first Chinese state of Shang/Yin. In general, those processes led to the enormous expansion of the Afroeurasian world-system. **In the late 2nd and 1st millennia BCE** the iron metallurgy was diffused throughout Afroeurasian world-system, which led to the significant growth of agricultural production in the areas of non-irrigation agriculture of Europe, North Africa, the Middle East, South Asia, and the Far East. This also led to the rise of crafts, trade, urbanization, and military capabilities. In the 1st millennium BCE the hegemony struggles moved far beyond the Near East. The fall of the New Assyrian Empire in the 7th cen-

4th century BCE paved way to the formation of new enormous empires (Median, and later Persian). The Greek-Persian wars marked the first clash between European and Asian powers. In the second half of the 4th century BCE Alexander the Great's campaign created (albeit for a short period of time) a truly Afroeurasian empire encompassing vast territories in all the three parts of the Old World – Asia, Africa, and Europe.

In the 2nd millennium BCE the Harappan civilization disappeared in a rather enigmatic way; however, in the 1st millennium BCE the Indoarians who had migrated to this region from Central Asia created there a new and more powerful civilization.

In the late 1st millennium BCE one could observe the formation of new empires: the Roman Republic and the Chinese Empire (Qin, and later Han). Then there developed an unusually long network of trade routes (the so-called Silk Route) between the western and eastern centers of the Afroeurasian world-system.

In the 1st millennium BCE and the early 1st millennium CE in connection with the climatic change and some important technological innovations (saddle, stirrup, *etc.*) a new type of nomadic societies emerged; new nomads were able to cover enormous distances and to transform themselves very fast into a sort of mobile army. As a result, the whole enormous landmass of the Eurasian steppe belt became the nomadic periphery of Afroeurasian world-system. The Scythian 'Kingdom' in Europe and the more recent 'empire' of Hsiung-nu that emerged to the north from China were one of the first powerful nomadic polities of such a type.

In the first centuries CE, as a result of mass migrations and military invasions of peoples from the barbarian periphery the ethnic and cultural landscape of the Afroeurasian world-system experienced very significant changes. The Western Roman Empire disappeared as a result of the barbarians' onslaught. The Han Empire in China collapsed earlier. As a result of stormy events within the Afroeurasian world-system a considerable number of new states (including states of the imperial type) emerged (Frankish, Byzantine, Sassanid empires, the Gupta Empire in India, the Tang Empire in China, *etc.*); note that some of them (like Turkic khaganates) played a role of the trade link between the East and the West.

The first millennium CE evidenced the emergence of new world religions and the wide diffusion of old and new world and super-ethnic religions (including Confucianism). Buddhism diffused very widely in many regions of Central, South-East, and East Asia (including China, Korea, Japan, and Tibet). Confucianism prevailed in East Asia. Christianity embraced the whole of Western and Eastern Europe and proliferated to some areas of Africa and Asia. Finally, starting with the 7th century one could observe an explosive spread of Islam that embraced the whole of Near and Middle East. The enormously large Islamic Khalifate emerged (it disintegrated quite soon afterwards, but it left behind a huge Islamic communication network [see, *e.g.*, Korotayev 2003a; Korotayev, Klimenko, Proussakov 1999, 2003]).

The first half of the 2nd millennium CE. The Crusades (the 11th – 13th centuries CE) were one of the most important world-system events; among other things they opened a channel of spice trade with Europe. An enormous role was played by the Mongolian conquests of the 13th century that brought unprecedented destructions and political perturbations. However, later the emergence of an unprecedentedly large Mongolian

empire secured the diffusion of a number of extremely important technologies throughout the Afroeurasian world-system (including its European part); it also established a network of trade routes connecting East Asia with Europe that was unprecedented as regards its scale and efficiency. The barbarian semiperiphery turned out to be incorporated in the civilization environment (of Islam, Buddhism, and Confucianism), which contributed to vigorous penetration of the world-system links far to the Eurasian North and deep into Africa. On the other hand, the expansion of trade contacts between the East and the West contributed to the diffusion of the Black Death pandemic in the 14th century.

An important event was the firm incorporation of South India in tight contacts with other parts of Afroeurasian world-system through a gradual penetration of the Islamic polities and a partial Islamization of its population. In the 15th century, a new political and military force emerged in West Asia, the Ottoman Empire. The Turks hindered the Levantine spice trade and, thus, accelerated the search for the sea route to India.

New qualitative changes within the Afroeurasian world-system were connected with the start of the Great Geographic Discoveries and the Afroeurasian world-system's transformation into the planetary capitalist World System, which marked the start of a qualitatively new phase in the globalization history that will be spelled out below.

II. World-System Links and Processes

Systemic character of the world-system processes. The world-system processes and transformations can be understood much better if the systemic properties are taken into account. Such systemic properties account for synchronicity or asynchronicity of certain processes, the presence of positive and negative feedbacks that can be traced for very long periods of time, say, in demographic indicators. We believe that a special attention should be paid to the idea of Chase-Dunn and Hall (1997: xi–xii) that a world-system is constituted not just by intersocietal interactions, but by the whole set of such interactions, whereas the level of analysis that is the most important for our understanding of social development is not the one of societies and states, but the one of the world-system as a whole. This way, a fundamental system property (the whole is more than just a sum of its parts) is realized with the world-systems. Changes and transformations in certain parts of a world-system can produce changes in its other parts through what may be called *impulse transformation*. It may be manifested in various forms (producing sometimes rather unexpected consequences). Thus, the hindering of the possibilities to deliver spices to Europe due to the Turkish conquests in the 15th century stimulated the search for the sea route to India, which finally changed the whole set of relationships within the Afroeurasian world-system. Due to the systemic properties, the processes that started in a certain part of the Afroeurasian world-system, could diffuse rather rapidly to most other parts of it (the rapid diffusion of the Black Death pandemic in the 14th century could serve here as an example).

A very interesting type of manifestation of the Afroeurasian world-system's systemic properties is constituted by **synchronized processes** that took place in various parts of the Afroeurasian world-system. One can mention as an example an East/West synchrony in growth and decline of the population sizes of largest cities from 500 BCE to 1500 CE in West Eurasia and those in East Eurasia (Chase-Dunn and Manning 2002). There is

a similar synchrony in the territorial sizes of the largest empires (Hall, Chase-Dunn, and Niemeyer 2009). Barfield (1989) argues that large steppe confederacies usually cycle synchronously with the rise and fall of the large sedentary agrarian states that they raid. These cycles are one hypothesized mechanism of the systemic linkages between East and West Asia (Hall, Chase-Dunn, and Niemeyer 2009). Such synchronized processes within the Afroeurasian world-system have been also detected by the students of the Bronze Age and earlier periods (Chernykh 1992; Frank 1993; Frank, Thompson 2005). One can also mention as salient examples of such synchronized processes the Axial Age transformations of the 1st millennium BCE (Jaspers 1953) or the military revolution and formation of a new type of statehood in Europe and Asia in the late 15th and 16th centuries CE that produced a colossal influence upon the formation of the modern World-System (see Grinin 2012a). However transformations were similar across different regions only in a broad sense and that development has always been spatially uneven (Chase-Dunn and Hall 1997: XIII).

While considering the general trends of Afroeurasian world-system development, it is necessary to note the following points:

a) the Afroeurasian world-system (phase) transition to a new phase produced an effect of diffusion (through borrowing, modernization, coercive transformation, incorporation, *etc.*) of the respective innovations throughout territories that turned out to be unprepared for the respective independent transformation. This can be seen in many of those processes that supported the Afroeurasian world-system development, like the diffusion of statehood, or world religions;

b) the Afroeurasian world-system development was frequently accompanied (and even supported) by the decline/underdevelopment of some of its parts; on the other hand, the flourishing of some societies could lead to the temporary decrease of the overall level of development/complexity of Afroeurasian world-system (as was observed some time after the Mongolian conquests).

c) all the processes of the Afroeurasian world-system development (and, especially, the development of the world-system links) were affected in a very significant way by migrations that often caused chain reactions of the movement of peoples and wars, which created conditions for large-scale transformations. Even for early periods of the Afroeurasian world-system formation quite large-scale migrations are known (see, *e.g.*, Berezkin 2007: 91; Frank 1993). Frank (1993) even speaks about ‘migratory system’. However, as is well known, the most large-scale migrations took place in the 3rd – 7th centuries CE;

d) already for the Neolithic period (starting from the Preceramic Neolithic) many archeologists speak (with quite serious grounds, from our point of view) about a single information space stretching (long before the Uruk culture) through vast territories from Central Turkey up to the Sinai Peninsular (see Lamberg-Karlovsky and Sabloff 1979; Bondarenko 2006 for more detail).

The most important types of the world-system links. Diffusion of innovations.

The Afroeurasian world-system movement to every new level of development was inevitably connected with the expansion and strengthening of communication links and networks. Chase-Dunn and Hall (1997: 59) single out the following main types of the world-system spatial links: bulk-goods exchange, prestige-goods exchange, political-

military interaction, and information exchange. In the meantime they note that the world religions constituted major innovations in the information networks and technologies of ideological power (Chase-Dunn and Hall 1997: 185). That is why it might make sense to single out civilization-cultural (ideological) interactions as a special type of the world-system links, as they differ substantially from usual information flows. Cultural-ideological interaction played a very important role within Afroeurasian world-system, especially, during the period of its maturity. In particular, since the 8th century CE all the civilized part of Afroeurasian world-system (with a partial exception of South Asia) consisted of actively interacting world religion areas (for more detail on the influence of the world religions on the evolution of Afroeurasian world-system see, *e.g.*, Korotayev 2000, 2003a, 2003b, 2004). Initially, the world-system analysis paid its main attention to the bulk good trade (Wallerstein 1974), however, for the period of the Afroeurasian world-system formation the most important role was played by information links (and especially by the diffusion of innovations [Korotayev 2005, 2007, 2008, 2012; Korotayev, Malkov, and Khaltourina 2006a; Grinin 2007b, 2012a; Grinin, Korotayev 2009b]). The presence of the pan-Afroeurasian world-system information network secured the diffusion of innovations throughout Afroeurasian world-system. In general, the processes of innovation generation and diffusion played an immensely important role during the whole history of Afroeurasian world-system.

Development of trade links. Quite a large scale trade in strategic economically important items could be already observed in the framework of the emerging Afroeurasian world-system, in West Asia. In particular, the obsidian (that was in high demand for the manufacturing of stone tools) was transported from the Anatolian Plato throughout Afroeurasian world-system already in the 7th millennium BCE. This is likely to have been accompanied by the trade in food stuffs, leather, and textiles (Lamberg-Karlovsky and Sabloff 1979). The economic importance of such an exchange can be estimated in different ways; however, it is quite clear that the system of information exchange was rather intensive. In addition to relations between the three main Near Eastern centers (Zagros, Palestine, and Anatolia), there were direct and indirect links with North Africa and Turkmenia (Lamberg-Karlovsky and Sabloff 1992: 86, 95; on extensive cultural links of this region, say, in the 7th millennium BCE see, *e.g.* Bader [1989: 228, 233, 262]). For the 5th and 4th millennia BCE we have evidence for a large-scale trade in metals (Chernykh 1992; Frank 1993). There is even more evidence on large-scale trade in the 3rd and 2nd millennia BCE (Wilkinson 1987; Frank 1993). In the 1st millennium BCE the long distance trade (including sea trade) became even more developed (Chase-Dunn and Hall 1997). A few millennia before, we would find another belt of societies strikingly similar in level and character of cultural complexity, stretching from the Balkans up to the Indus Valley outskirts (see, *e.g.*, Peregrine, Ember 2001a, 2001b; Peregrine 2003)⁶.

In the late 7th millennium BCE the growing aridization led to the end of the Preceramic Neolithic B, though one cannot exclude that the Neolithic agriculturalists themselves contributed to the exhaustion of the ecological systems (*e.g.*, Kuijt 2000). In any case this crisis did not lead to the destruction of the emergent Afroeurasian world-system; on

⁶ It appears appropriate to emphasize that in both cases the population of respective belts engulfed the majority of the world population of respective epochs.

the contrary, it appears to have made a few groups from the world-system core migrate to more ecologically favorable areas of the Mediterranean coast, whereas some other groups migrated to forest-steppe areas, whereas the remaining groups might have turned to seminomadic patterns of subsistence (Cauvin 1989: 191). Those groups that started infiltrating back to Palestine half a millennium later developed having been enriched by new technologies and cultural traits (Lamberg-Karlovsky and Sabloff 1992: 82). This way, the Afroeurasian world-system actually expanded, as the migrations contributed to the growth of the area of high cultural complexity, they contributed to the exchange of information and the increase in the division of labor.

Global communications of the 1st millennium and the early 2nd millennium CE. In the second half of the 1st millennium CE in the Indian Ocean Basin (in the area stretching from the East African Coast to South-East Asia (including Indonesia) and China one could observe the formation of a prototype of the oceanically-connected World-System. In this enormous network of international trade an important role was played by Persian, Arab, Indian, and other merchants (see Bentley 1996 for more detail). It is important to note that the trade in this region was not restricted to luxury items, but included a considerable number of bulk goods, such as dates, timber, construction materials, *etc.* (*Ibid.*).

In the 13th and 14th centuries, one could observe the emergence and functioning of a vigorous transcontinental trade network through the territories of the Mongolian states that connected in a very tangible way all the Afroeurasian world-system's main zones. As is noted by Abu-Lughod (1989), this world-system trade network was more complexly organized, had a larger volume than any previously existing network.

III. The World System Genesis and Transformations: A Detailed Analysis

Origins of the Afroeurasian world-system. There a considerable number of points of view regarding the dates of the possible formation of the Afroeurasian world-system. For example, Frank and Thompson date its origins to the 4th and 3rd millennia BCE (Frank 1993; Frank and Thompson 2005); Wilkinson (1987) and Berezkin (2007: 92–93) consider the 2nd millennium as its beginning. The authors of the present article date the emergence of Afroeurasian world-system to a considerably earlier period, the 10th – 8th millennia BCE (Korotayev and Grinin 2006, 2012; Grinin and Korotayev 2009b; 2012). Some other world-system students believe that it only came to the real existence in the late 1st millennium BCE (Chase-Dunn and Hall 1997, 2011; Hall, Chase-Dunn, and Niemeyer 2009).

The approaches to this issue differ considerably depending on the world-system criteria employed: bulk good criterion (a more rigid one), prestige good, or information network ones (softer criteria). The more rigid the approach, the more recent the dating it produces. However, the datings also depend on the general approaches to the emergence of the Afroeurasian world-system. For example, if together with Chase-Dunn and Hall (1997: 150) we believe that by the moment of the Silk Route initiation there were three main independent world-systems (West Asian, Chinese, and South Asian) that merged later into a single world-system (Afroeurasian world-system), then it appears very logical to date the emergence of the single Afroeurasian world-system to the late 1st millennium BCE. However, if we are basing ourselves on the facts that the West Asian world-system was

from the very beginning leading technologically, socially, and economically, that it was much more innovative than other world-systems,⁷ that the West Asian world-system influenced enormously the development of South Asia and the Far East whereas the influence in the opposite direction by the late 1st millennium BCE was negligible (and hence we should speak about the incorporation of South and East Asia into Afroeurasian world-system, rather than a merger of three equally important world-systems), then the origins of the Afroeurasian world-system turn out to have much (several millennia) more ancient datings.

In any case it is quite clear that the emergence of the Afroeurasian world-system was a rather prolonged process. It should be also taken into account that this was the Near East where one could observe the earliest transition to the food production, in general, and to the cultivation of cereals in particular; to the large-scale irrigated agriculture, to the urban settlement patterns, to the metallurgy, writing, statehood, empires, and so on.⁸

Hence, whatever dating for the Afroeurasian world-system start we provide, it is perfectly clear that the roots of its formation ascend by millennia deep in time up to the beginnings of the agrarian ('Neolithic') revolution in West Asia in the 10th – 8th millennia BCE. Within this prolonged process of the Afroeurasian world-system genesis and transformation one could single out a few major phases.

1) The 8th – 4th millennia – the formation of contours and structure of the Middle Eastern core of Afroeurasian world-system (the first phase). This is a period of the finalization of the first stage of the agrarian revolution in the Near East (the second phase of the Agrarian Revolution was connected with the formation of large-scale irrigation and later intensive plow agriculture in the 4th – 1st millennia BC [Korotayev, Grinin 2006]). This period evidenced the beginning formation of rather long-distance and quite permanent information/exchange contacts. Those processes were accompanied by the formation of medium-complexity early agrarian societies, relatively complex polities, and settlements that (as regards their sizes and structure) were distantly similar to cities (*e.g.*, Kenyon 1981; Wenke 1990: 325; Schultz and Lavenda 1998: 214).

In the 5th millennium BCE, the Ubaid culture emerged in Southern Mesopotamia; it was this culture, within which the material and social basis of the Sumerian civilization was developed up to a considerable extent. The Uruk culture that succeeded the Ubeid one was characterized by the presence of a considerable number of rather large settlements. Thus, by the end of the period in question the Urban Revolution took place within the Afroeurasian world-system; this revolution can be regarded as a phase transition of the Afroeurasian world-system to a qualitatively new level of social, political, cultural, demographic, and technological complexity (Berezkin 2007). By the end of the period in

⁷ This point should be specially emphasized, as it allows suggesting a tentative dating of the World System formation, as well as to identify early phases of its development. Actually, in the Far East and South-East Asia the transition to agriculture began rather early, but these were mostly horticultural domesticates with a rather low evolutionary potential; it is also essential that nothing like cities (or even fortresses) emerged in those regions during that early period (which appears to indicate low intensity of contacts). Cities emerged in the New World, but there hardly was any developed animal husbandry, as well as any wide use of metals (with the exception of precious metals in addition to a very limited use of copper).

⁸ Note that proto-cities and cities were major indicators that the world-system in the Near East was more developed than in the other parts of the world.

question one could observe the emergence of urbanized societies (Bernbeck and Pollock 2005: 17), as well as the first early states, their analogues (Grinin and Korotayev 2006; Grinin 2003, 2008a), and civilizations. Thus, by the end of the period in question the Urban Revolution took place within Afroeurasian world-system; this revolution can be regarded as a phase transition of Afroeurasian world-system to a qualitatively new level of social, political, cultural, demographic, and technological complexity (Berezkin 2007).

In the beginning of this period the scale of links within the Afroeurasian world-system may be denoted as regional because in the very beginning this world-system itself had a size of a region. With the expansion of the Afroeurasian world-system, the scale of its world-system links expanded too. So some later (after 7–6 millennia BCE) they transform into regional-continental ones. However, during this period the Afroeurasian world-system still covered a minor part of the Globe; hence, at the global scale local links still prevailed during this period.

2) The 3rd and 2nd millennia BCE – development of the Afroeurasian world-system centers in the Bronze Age (the second phase). This is a period of a rather fast growth of agricultural intensiveness and population of the Afroeurasian world-system. A relatively rapid process of emergence and growth of the cities in the Afroeurasian world-system was observed in the second half of the 4th millennium and the first half of the 3rd millennium BCE; later the Afroeurasian world-system urbanization process slowed down very significantly until the 1st millennium BCE (Korotayev 2006a; Korotayev, Grinin 2006, 2012). One of the most important results of this period was the growth of political integration of the Afroeurasian world-system core societies, which was a consequence of rather complex military-political and other interactions. First of all, in the Afroeurasian world-system core one could observe the growth of political complexity: from cities and small polities to large early and developed states (Grinin, Korotayev 2007; Grinin 2008a). Secondly, the first empires emerged. Thirdly, since the 3rd millennium BCE one could observe cycles of political hegemony upswings and downswings (Frank, Gills 1993; see also Chase-Dunn *et al.* 2010).

In the late 3rd millennium and the 2nd millennium BCE in Mesopotamia one could observe the succession of the Akkadian Empire, the 3rd Dynasty of Ur Kingdom, the Old Babylonian Kingdom, the Assyrian Kingdom. In the second half of the 2nd millennium BCE one could see a vigorous hegemonic struggle between Assyria, Egypt, and the Hittite Kingdom.

Within the West Asian region the prestige good trade network achieved a rather high level of development and was often supported by states. Some part of Europe was included quite firmly in the Afroeurasian world-system communication network. The trade links with South Asia were established through the Persian Gulf.

Key West Asian technologies (cultivation of West Asian cereals, breeding of cattle and sheep, some important metallurgy, transportation, and military technologies) penetrated to East Asia (possibly through the Andronovo intermediaries), which is marked archaeologically by the transition from the Yangshao culture to the Longshan one (see, *e.g.*, Berezkin 2007). This way the main Afroeurasian world-system centers were formed; these centers developed throughout the subsequent history of Afroeurasian world-system; yet, during this period this development was marked with the technological (and other) leadership of the West Asian center and the strengthening of (still rather weak) communication links between various centers.

Thus, within the Afroeurasian world-system the links became not only interregional, but contours of transcontinental links also became quite visible. However, at the global scale regional links still prevailed.

3) The 1st millennium BCE till 200 BCE – the Afroeurasian world-system as a belt of expanding empires and new civilizations (the third period). This is the time of the early Iron Age. Already in the first part of this period the agrarian revolution within Afroeurasian world-system was finalized through the diffusion of the technology of plow non-irrigation agriculture based on the use of cultivation tools with iron working parts (see Korotayev, Grinin 2006, 2012 for more detail). On this production base enormous changes in trade and military-political spheres took place accompanied by a new urbanization and state development upswing (a group of developed states emerged [see Grinin, Korotayev 2006; Grinin 2008a for more detail]). One could observe within the Afroeurasian world-system a constant growth of the belt of empires: the New Babylonian, Median, Achaemenid, Macedonian Empire (and its descendants) in the world-system center, the Maurya Empire in South Asia, the Carthaginian Empire in the West. The end of the period evidenced the formation of empires both in the Far West (Rome) and the Far East (China) of the Afroeurasian world-system. This is the Axial Age period, the period of the emergence of the second generation civilizations. The development of all the Afroeurasian world-system centers proceeded rather vigorously. The West Asian center was finally integrated with the Mediterranean world, whereas the European areas of the barbarian periphery were linked more and more actively with the Afroeurasian world-system centers with military, trade, and cultural links. In South Asia a new civilization formed, and the first world religion – Buddhism – emerged. Trade links were established in the space stretching from Egypt to Afghanistan and the Indus Valley (Bentley 1996; 1999), and in general, all the territory became connected militarily-politically. The East Asian center of Afroeurasian world-system developed also very rapidly; this period evidenced the emergence there of its own super-ethnic quasi-religion, Confucianism. One could observe a rather fast development of all the world-system centers. The West Asian center was finally integrated with the Mediterranean world, whereas the European territories of the barbarian periphery became more and more actively connected with the world-system center with military, trade, and cultural links.

Thus, complexity, and density of links within the world-system continued to grow acquiring continental and intercontinental scales.

4) 200 BCE – the early 7th century CE. – Afroeurasian world-system is integrated by the steppe periphery (The fourth phase). *In this period the links within this world-system became transcontinental and could be compared with global.*

Around the 2nd century BCE relatively stable trade links (albeit involving preciousness rather than bulk goods) were established between the ‘marcher empires’ of Afroeurasian world-system through the so-called Silk Route, a significant part of which went through the territories of nomadic periphery and semiperiphery.⁹ Thus, in this period the periphery closed the circuit of Afroeurasian world-system trade links. The Afroeurasian world-

⁹ In particular, many note the important roles of steppe nomads in these linkages (Barfield 1989; Chase-Dunn and Hall 1997: ch. 8; Frank 1993; Lattimore 1940; Mair 2006; Sherratt 2006; Teggard 1939).

system expansion proceeded for a long period of time up to a considerable extent through the expanding interaction between civilizations and their barbarian peripheries. The larger and more organized civilizations grew, the more active and organized their peripheries became. In the given period this process was sharply amplified, and the Great Migration epoch evidenced the acquisition by the barbarian periphery itself of the world-system scale and synchronicity of influence. The disintegration of the Western Roman Empire, the weakening of the Eastern Roman Empire, the fast diffusion of Christianity in the western part of Afroeurasian world-system, a new rise of the Chinese Empire in its eastern part prepared Afroeurasian world-system to major geopolitical changes and its movement to a new level of complexity. On the other hand, the growth of the Afroeurasian world-system population by the end of the 1st millennium BCE up to 9-digit numbers led to increased level of pathogen threat. Thus, the Antonine and Justinian's pandemics led to catastrophic depopulations throughout Afroeurasian world-system in the 2nd and 6th centuries, contributing (in addition to the onslaught of the barbarian peripheries) in a very substantial way to the significant slowdown of the Afroeurasian world-system demographic and economic growth in the 1st millennium CE.

5) The 7th – 14th centuries – Afroeurasian world-system apogee: world religions and world trade (the fifth phase). *On the one hand, in this period the level of development of the world-system links reached the upper limits of what could be achieved on the agrarian basis. On the other hand, one could observe the formation of important preconditions for the transformation of Afroeurasian world-system into the planetary capitalist World System.*

As regards the first aspect, one should note especially the formation and development of all the world religions. In certain aspects within this phase the Afroeurasian world-system developed as a supersystem of contacting and competing third generation civilizations, which created firm cultural-information links among all the Afroeurasian world-system centers, including South Asia that remained in a relative isolation during the preceding period. Note also an unprecedented sweep of military-political contacts and the growth of the level of development of state structures.

As regards the second aspect, one should note especially: a) the formation of especially dense oceanic trade links in the second half of the 1st millennium in the Indian Ocean Basin (see above); b) the creation of vigorous major transcontinental land route through the territory of the Mongol states that connected in a rather direct way the main Afroeurasian world-system centers (see above); c) the start of formation (by the end of this period) of an urbanized zone stretching from Northern Italy through Southern Germany to the Netherlands, where the commodity production became the dominant form of economy (Bernal 1965; Wallerstein 1974; Blockmans 1989: 734).

Already in 1500 there were more than 150 cities with population of more than 10,000 in Europe (Blockmans 1989: 734). A very high level of urbanization was observed in Holland where already in 1514 more than half of the population lived in cities (Hart 1989: 664). On the other hand, a similar level of urbanization could be found that time in the Southern Netherlands (Brugge, Ghent, and Antwerp), whereas in Northern Italy in the Po River valley this level might have been even higher (Blockmans 1989: 734). Since the 14th century the city growth might have been amplified by the emergence of the developed statehood and

the concomitant process of the formation of the developed state capitals (*e.g.*, Grinin 2008a, 2012a; Grinin, Korotayev 2012; 2009a: ch. 6), and the growth of cities of all the types, including very large cities.

6) The 15th – 18th centuries – transformation of the Afroeurasian world-system into the planetary World System (the sixth phase). This phase was connected with the start (the first phase) of the industrial revolution (see Knowles 1937; Dietz 1927; Henderson 1961; Phyllis 1965; Cipolla 1976; Stearns 1993, 1998; Lieberman 1972; Mokyr 1985, 1993; More 2000; Grinin 2007b, 2012a; Grinin and Korotayev 2009a: ch. 2) that determines the transformation of Afroeurasian world-system simultaneously into the planetary and capitalist World-System (corresponding rather well to Wallerstein's [1974, 1980, 1987, 1988, 2004] world-system, as its development involves mass movements of bulk notion goods, whereas some territories [especially in the New World] got entirely specialized in their production). A really high level of intensity of the emerged planetary world-system links could be evidenced, for example, by a really high effect produced by the price revolution that resulted from the mass import into the Old World of the New World gold and silver (see, *e.g.*, Barkan and McCarthy 1975; Goldstone 1988; Hathaway 1998: 34).

However, as the agrarian production principle still absolutely prevailed, one could observe the development up to extreme of some previous trends, especially in the non-European centers of the world-system. In particular, East Asia still continued its development along its own trajectory, demonstrating indubitable achievements in the development of state or cultural structures, outstanding demographic growth, *etc.*

In the 16th and 17th centuries the so called 'military revolution' took place in Europe (*e.g.*, Grinin and Korotayev 2009a: ch. 5; Grinin 2012a). It implied the formation of modern regular armies with sophisticated firearms and artillery, which demanded the reorganization of all the financial and administration system. In its turn the growth of the military might of the European powers contributed to the start of the modernization of some non-European states (the Ottoman Empire, Iran, the Mughal Empire in India), on the one hand, and to an artificial self-isolation from Europe of some other Asian states (China, Japan, Korea, and Vietnam), on the other. This modernization touched first of all the military organization, as well as some state and financial institutions (on the relation between the 'East' and 'West' in this period see, *e.g.*, Frank 1978, 1998).

7) From the beginning of 19th century to the 20th century – the industrial World System and mature globalization (subsequent phases). The Great Geographic Discoveries extended sharply the Afroeurasian world-system's contact zone. As a result of this (as well as Europe's technological breakthrough) a new structure of this world-system started to be formed. The trade-capitalist core emerged in Europe, whereas previous world-system centers (in particular, the one in South Asia) were transformed into exploited periphery (this process became even more active at the subsequent phase of the World-System evolution). Thus the phenomenon of the world-system periphery experienced a significant transformation.

The subsequent World System development is connected directly with the second phase of the Industrial revolution (the last third of the 18th century and the first half of

the 19th century [see Grinin 2007b, 2007c for more detail]). Changes in transportation and communication produced an especially revolutionizing effect on the development of the world-system links. They contributed to the transformation of the World System still based primarily on information links into the World System exchanging regularly from the Atlantic to the Pacific with various commodities and services, into such a World System that has instead of fragmentary and irregular rather powerful and very regular information flows. This new World System became based on a truly international and global division of labor.

In the 20th century the World System development (after world wars and decolonization) was connected with the Scientific-Information revolution of the second half of the 20th century (e.g., Grinin 2012a), which in conjunction with many other processes finally led to a fast growth of globalization processes (especially those involving powerful financial flows) and their qualitative transformation (e.g., Grinin, Korotayev 2010a, 2010b; Korotayev *et al.* 2011). As a result the world became really tightly interconnected which has been recently demonstrated again in a rather convincing way by the global financial-economic crisis. By the late 20th century the view that our world is experiencing globalization (whatever meaning was assigned to this word) became a general conviction.

In the present paper we have analyzed the early phases of globalization and thus have hardly touched upon processes of the contemporary globalization. Among the important (but insufficiently analyzed) processes very tightly connected with globalization one can point out the process of the national sovereignty transformation that appears to be an essential component of the present-day globalization. Due to the limits of the article we have no opportunity to dwell on the issue but elsewhere we argue that although the national state will remain the leading player in the world scene for a long time, we suppose that in the long term the tendency to transform national sovereignty will grow (for more detail see Grinin 2007a, 2008b, 2009a, 2012a, 2012b; Grinin and Korotayev 2010a, 2010b, 2011). We are on the eve of a very complex, contradictory, and long process of the formation of a new world order; the state will not disappear within it, but its features and functions will change significantly.

References

- Abu-Lughod, J. 1989.** *Before European Hegemony: The World System A.D. 1250–1350*. New York: Oxford University Press.
- Amin, S., Arrighi, G., Frank, A. G., and Wallerstein, I. 2006.** *Transforming the Revolution: Social Movements and the World-System*. Delhi: Aakar.
- Arrighi, G., and Silver, B. J. 1999.** *Chaos and Governance in the Modern World System*. Minneapolis, MN: University of Minnesota Press.
- Bader, N. O. 1989.** *The Ancient Agriculturalists of the Northern Mesopotamia*. Moscow: Nauka. *In Russian*.
- Barfield, T. J. 1989.** *The Perilous Frontier*. London: Blackwell.
- Barkan, O., and McCarthy J. 1975.** The Price Revolution of the Sixteenth Century: A Turning Point in the Economic History of the Near East. *International Journal of Middle East Studies* 6(1): 3–28.
- Barkin, S. J., and Cronin, B. 1994.** The State and the Nation: Changing Norms and the Rules of Sovereignty in International Relations. *International Organization* 48(1): 107–130.

- Bayly, C. A. 2004.** *The Birth of the Modern World, 1780–1914: Global Connections and Comparisons*. Maiden, MA and Oxford: Blackwell.
- Bentley, J. H. 1996.** Cross-Cultural Interaction and Periodization in World History. *American Historical Review* 101(3): 749–770.
- Bentley, J. H. 1999.** Asia in World History. *Education about Asia* 4: 5–9.
- Berezkin, Yu. E. 2007.** On the Structure of History: The Temporal and Spatial Constituents. In Turchin, P. V., Grinin, L. E., Malkov, S. Yu., and Korotayev, A. V. (eds.), *History and Mathematics: The Conceptual Space and Trends for the Search* (pp. 88–98). Moscow: LKI/URSS. In Russian.
- Bernal, J. D. 1965.** *Science in History*. 3rd ed. New York: Hawthorn Books.
- Bernbeck, R., and Pollock, S. 2005.** A Cultural-Historical Framework. In Pollock, S., and Bernbeck, R. (eds.), *Archaeologies of the Middle East: Critical Perspectives* (pp. 11–40). Oxford: Blackwell.
- Blockmans, W. T. 1989.** Preindustrial Europe. *Theory and Society* 18(5): 733–755.
- Bondarenko, Ye. S. 2006.** The Information Field of the Neolithic age in the Near East. *Istoria i sovremennost* 2: 47–66. In Russian.
- Borsch, S. J. 2005.** *The Black Death in Egypt and England*. Cairo: The American University of Cairo Press.
- Braudel, F. 1973.** *Capitalism and Material Life, 1400–1800*. New York: Harper and Row.
- Cauvin, J. 1989.** The Prehistoric Origins of the Society of Pastoralists-Herders in the Levant. In Masson, V. M. (ed.), *The Interaction of Nomadic Cultures and Ancient Civilizations* (pp. 189–203). Almaaty: Nauka. In Russian.
- Cauvin, J. 2000.** *The Birth of the Gods and the Origins of Agriculture*. Cambridge: Cambridge University Press.
- Chase-Dunn, C., and Hall T. D. 1994.** The Historical Evolution of World-Systems. *Sociological Inquiry* 64: 257–280.
- Chase-Dunn, C., and Hall, T. D. 1997.** *Rise and Demise: Comparing World-Systems*. Boulder, CO: Westview.
- Chase-Dunn, C., and Hall, T. D. 2011.** East and West in World-Systems Evolution. In Manning, P., and Gills, B. (eds.), *Andrew Gunder Frank and Global Development: Visions, Remembrances, and Explorations* (pp. 97–119). London: Routledge.
- Chase-Dunn, C., and Manning, S. 2002.** City Systems and World-Systems: Four Millennia of City Growth and Decline. *Cross-Cultural Research* 36(4): 379–398.
- Chase-Dunn, C., Niemeyer, R., Alvarez, A., Inoue, H., and Love J. 2010.** Cycles of Rise and Fall, Upsweeps and Collapses: Changes in the Scale of Settlements and Politics since the Bronze Age. In Grinin, L. E., Herrmann, P., Korotayev, A. V., and Tausch, A. (eds.), *History & Mathematics: Processes and Models of Global Dynamics* (pp. 64–91). Volgograd: Uchitel.
- Chernykh, E. N. 1992.** *Ancient Metallurgy in the USSR: The Early Metal Age*. Cambridge: Cambridge University Press.
- Childe, G. 1952.** *New Light on the Most Ancient East*. 4th ed. London: Routledge & Kegan Paul.
- Chumakov, A. N. 2011.** *Globalization. The Outlines of the Integral World*. 2nd edition. Moscow: Prospekt. In Russian.
- Cipolla, C. M. 1976. (ed.).** *The Industrial Revolution. 1700–1914*. London: Harvester.
- Clark, J. G. D. 1952.** *Prehistoric Europe: the Economic Basis*. London: Methuen.

- Cohen, M. N. 1977.** *The Food Crisis in Prehistory. Overpopulation and the Origins of Agriculture.* New Haven and London: Yale University Press.
- Conversi, D. 2010.** The Limits of Cultural Globalisation? *Journal of Critical Globalisation Studies* 3: 36–59.
- Courchene, T. J., and Savoie, D. J. 2003. (Eds.).** *The Art of the State: Governance in a World without Frontiers.* Montreal: Institute for Research on Public Policy.
- Cowan, S. W., and Watson, P. J. 1992. (Eds.).** *The Origins of Agriculture.* Washington & London: Smithsonian Institution Press.
- Dahrendorf, R. 1976.** Changes in the Class Structure of Industrial Societies. In Beteille, A. (ed.), *Social Inequality* (pp. 93–121). Harmondsworth: Penguin Books.
- Diamond, J. 1999.** *Guns, Germs, and Steel: The Fates of Human Societies.* New York: Norton.
- Dietz, F. 1927.** *The Industrial Revolution.* New York: Holt.
- Dols, M. W. 1977.** *The Black Death in the Middle East.* Princeton, NJ: Princeton University Press.
- Durand, J. D. 1977.** Historical Estimates of World Population. An Evaluation. *Population and Development Review* 3(3): 253–296.
- Farer, T. 1996. (Ed.).** *Beyond Sovereignty: Collectively Defending Democracy in the Americas.* Baltimore and London: JHU Press.
- Fisher, V. 1999.** *Europe: Economy, Society and State: 1914–1980.* Moscow: Vlasos. In *Russian.*
- Foreman-Peck, J. 1998.** Historical Foundations of Globalization. Cheltenham: Edward Elgar.
- Frank, A. G. 1978.** *World Accumulation 1492–1789.* New York: Monthly Review Press.
- Frank, A. G. 1990.** A Theoretical Introduction to 5,000 Years of World System History. *Review* 13(2): 155–248.
- Frank, A. G. 1993.** Bronze Age World System Cycles. *Current Anthropology* 34(4): 383–419.
- Frank, A. G. 1998.** *ReORIENT: Global Economy in the Asian Age.* Berkeley, CA: University of California Press.
- Frank A. G., Gills B. K. 1993. (Eds.)** *The World System: Five Hundred Years or Five Thousand?* London: Routledge.
- Frank, A. G., Thompson, W. R. 2005.** Afro-Eurasian Bronze Age Economic Expansion and Contraction Revisited. *Journal of World History* 16: 115–172.
- Friedman, T. L. 2005.** It's a Flat World, After All. *New York Times Magazine* 3-4-2005.
- Gans, C. 2001.** Historical Rights: The Evaluation of Nationalist Claims to Sovereignty. *Political Theory* 29(1): 58–79.
- Gelber, H. G. 1997.** *Sovereignty through Interdependence.* London – The Hague–Boston: Kluwer Law International.
- Gellner, E. 1988.** *Plough, Sword and Book. The Structure of Human History.* Chicago, IL: The University of Chicago Press.
- Giddens, A. 1990.** *The Consequences of Modernity.* Stanford: Stanford University Press.
- Gilpin, R. 2001.** *Global Political Economy: Understanding the International Economic Order.* Princeton, NJ: Princeton University Press.
- Goldstone, J. 1988.** East and West in the Seventeenth Century: Political Crises in Stuart England, Ottoman Turkey and Ming China. *Comparative Studies in Society and History* 30: 103–142.

- Grinin, L. E. 2003.** *Productive Forces and Historical Process*. Volgograd: Uchitel. In Russian.
- Grinin, L. E. 2007a.** Globalization and the Transformation of National Sovereignty. In Sheffield, J., and Fielden, K. (eds.), *Systemic Development: Local Solutions in a Global Environment*. Goodyear: ISCE Publishing.
- Grinin, L. E. 2007b.** Production Revolutions and Periodization of History: A Comparative and Theoretic-mathematical Approach. *Social Evolution & History* 6(2): 75–120.
- Grinin, L. E. 2007c.** Production Revolutions and Periodization of History. *Vestnik Rossiiskoi Akademii Nauk* 77(4): 309–315. In Russian.
- Grinin, L. E. 2008a.** Early State, Developed State, Mature State: The Statehood Evolutionary Sequence. *Social Evolution & History* 7(1): 67–81.
- Grinin, L. E. 2008b.** Globalization and Sovereignty: Why do States Abandon their Sovereign Prerogatives? *Age of Globalization* 1: 22–32.
- Grinin, L. E. 2009a.** The State in the Past and in the Future. *Herald of the Russian Academy of Sciences* 79(5): 480–486.
- Grinin, L. E. 2009b.** *The State and Historical Process. The Political Aspect of Historical Process. 2nd edition*. Moscow: LIBROCOM. In Russian.
- Grinin, L. E. 2011.** Globalization Origin: World-System Analysis. *Vek globalizatsii* 1(7): 80–94. In Russian.
- Grinin, L. E. 2012a.** *Macrohistory and Globalization*. Volgograd: Uchitel.
- Grinin, L. E. 2012b.** New Foundations of International System or Why do States Lose Their Sovereignty in the Age of Globalization? *Journal of Globalization Studies* 3(1): 3–38.
- Grinin, L. E., and Korotayev, A. V. 2006.** Political Development of the World System: A Formal Quantitative Analysis. In Malkov, S. Yu., Grinin, L. E., and Korotayev, A. V. (eds.), *History & Mathematics: Historical Dynamics and Development of Complex Societies* (pp. 49–101). Moscow: KomKniga.
- Grinin, L. E., Korotayev, A. V. 2009a.** *Social Macroevolution: The Genesis and Transformation of the World System*. Moscow: LIBROCOM. In Russian.
- Grinin, L. E., Korotayev, A. V. 2009b.** Social Macroevolution: Growth of the World System Integrity and a System of Phase Transitions. *World Futures* 65(7): 477–506.
- Grinin, L. E., Korotayev, A. V. 2010a.** Will the Global Crisis Lead to Global Transformations. 1. The Global Financial System: Pros and Cons. *Journal of Globalization Studies* 1(1): 70–89.
- Grinin, L. E., Korotayev, A. V. 2010b.** Will the Global Crisis Lead to Global Transformations? 2. The Coming Epoch of New Coalitions. *Journal of Globalization Studies* 1(2): 166–183.
- Grinin, L. E., Korotayev, A. V. 2011.** The Coming Epoch of New Coalitions: Possible Global Scenarios. *World Futures* 67(8): 531–563.
- Grinin, L. E., Korotayev, A. V. 2012.** Afroeurasian World-System: Genesis, Transformations, Characteristics. In Babones, S., and Chase-Dunn, C. (eds.), *Routledge Handbook of World-Systems Analysis* (pp. 30–39). London: Routledge.
- Hall, T. D., Chase-Dunn, C., and Niemeyer R. 2009.** The Roles of Central Asian Middlemen and Marcher States in Afroeurasian World-System Synchrony. In Trinchur, G. (ed.), *The Rise of Asia and the Transformation of the World-System*. Boulder, CO: Paradigm Press.
- Harris, D., and Hillman, G. 1989.** An Evolutionary Continuum of People-plant Interaction. *Foraging and Farming. The Evolution of Plant Exploitation* (pp. 11–27). London: Unwin Hyman.

- Hart, M. T. 1989.** Cities and Statemaking in the Dutch Republic, 1580–1680. *Theory and Society* 18(5): 663–687.
- Hathaway, J. 1998.** Egypt in the Seventeenth century. In Daly, M. (ed.), *The Cambridge History of Egypt*. Vol. 2 (p. 34–58). Cambridge: Cambridge University Press.
- Held, D., McGrew, A., Goldblatt, D., and Perraton, J. 1999.** *Global Transformations. Politics, Economics and Culture*. Stanford: Stanford University Press.
- Held, D., and McGrew, A. 2003. (Eds.).** *The Global Transformation Reader: An Introduction to the Globalization Debate*. Cambridge: Polity Press.
- Henderson, W. O. 1961.** *The Industrial Revolution on the Continent: Germany, France, Russia, 1800–1914*. [London]: F. Cass.
- Hopkins, A. G. 2002.** *Globalization in World History*. New York: Norton.
- Hopkins, A.G. 2003. (Ed.)** *Globalization in World History*. New York City: Norton.
- Jaspers K. 1953.** *The Origin and Goal of History*. New Haven, CT: Yale University Press.
- ICISS (International Commission on Intervention and State Sovereignty). 2001.** *The Responsibility to Protect: Research, Bibliography, Background*. Supplementary volume to the report of the International Commission on Intervention and State Sovereignty. December 2001. Ottawa.
- Ingold, T. 1980.** *Hunters, Pastoralists, and Ranchers: Reindeer Economies and Their Transformations*. Cambridge: Cambridge University Press.
- Kelbessa, V. 2006.** Globalization and Localization. In Mazour, I. I., and Chumakov, A. N. (eds.), *Global Studies. The International Encyclopedic Dictionary*. Moscow – St. Petersburg – New York: Elima, Piter. *In Russian*.
- Kenyon, K. M. 1981.** *Excavations at Jericho*. Vol. 3. Jerusalem: British School of Archaeology.
- Knowles, L. C. A. 1937.** *The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century*. London: Routledge.
- Korotayev, A. 2000.** Parallel Cousin (FBD) Marriage, Islamization, and Arabization. *Ethnology* 39(4): 395–407.
- Korotayev, A. 2003a.** Religion and Society in Southern Arabia and among the Arabs. *Arabia* 1: 65–76.
- Korotayev, A. 2003b.** Unilineal Descent Groups and Deep Christianization: A Cross-Cultural Comparison. *Cross-Cultural Research* 37(1): 132–156.
- Korotayev, A. 2004.** *World Religions and Social Evolution of the Old World Oikumene Civilizations: A Cross-cultural Perspective*. Lewiston, NY: The Edwin Mellen Press.
- Korotayev, A. 2005.** A Compact Macromodel of World System Evolution. *Journal of World-Systems Research* 11(1): 79–93.
- Korotayev, A. 2006a.** ‘Midwest-Amazonian’ Folklore-Mythological Parallels? *Acta Americana* 14(1): 5–24.
- Korotayev, A. 2006b.** The World System Urbanization Dynamics: A Quantitative Analysis. In Turchin, P., Grinin, L., Korotayev, A., and de Munck, V. C. (eds.), *History & Mathematics: Historical Dynamics and Development of Complex Societies* (pp. 44–62). Moscow: KomKniga/URSS.
- Korotayev, A. 2007.** Compact Mathematical Models of World System Development, and How they can Help us to Clarify our Understanding of Globalization Processes. In Modelski, G., Devezas, T., and Thompson, W. R. (eds.), *Globalization as Evolutionary Process: Modeling Global Change* (pp. 133–160). London: Routledge.

- Korotayev, A. 2008.** Globalization and Mathematical Modeling of Global Development. In Grinin L. E., Beliaev. D. D., and Korotayev, A. V. (eds.), *Hierarchy and Power in the History of Civilizations: Political Aspects of Modernity* (pp. 225–240). Moscow: LIBRO-COM/URSS.
- Korotayev, A. 2009.** Compact Mathematical Models of the World System Development and Their Applicability to the Development of Local Solutions in Third World Countries. In Sheffield, J. (ed.), *Systemic Development: Local Solutions in a Global Environment* (pp. 103–116). Litchfield Park, AZ: ISCE Publishing.
- Korotayev, A. 2012.** Globalization and Mathematical Modeling of Global Development. In Grinin, L., Ilyin, I., and Korotayev, A. (eds.), *Globalistics and Globalization Studies* (pp. 148–158). Moscow – Volgograd: Moscow University – Uchitel.
- Korotayev, A., Berezkin, Yu., Kozmin, A., and Arkhipova, A. 2006.** Return of the White Raven: Postdiluvial Reconnaissance Motif A2234.1.1 Reconsidered. *Journal of American Folklore* 119: 472–520.
- Korotayev, A., and Grinin, L. 2006.** Urbanization and Political Development of the World System: A Comparative Quantitative Analysis. In Turchin, P. *et al.* (eds.), *History and Mathematics. Historical Dynamics and Development of Complex Societies* (pp. 115–153). Moscow: URSS.
- Korotayev, A., and Grinin, L. 2012.** Global Urbanization and Political Development of the World System. In Grinin, L., Ilyin, I., and Korotayev, A. (eds.), *Globalistics and Globalization Studies* (pp. 28–78). Moscow – Volgograd: Moscow University – Uchitel.
- Korotayev, A., and Kazankov, A. 2000.** Regions Based on Social Structure: A Reconsideration. *Current Anthropology* 41(5): 668–690.
- Korotayev, A., Klimenko, V., and Proussakov, D. 1999.** Origins of Islam: Political-Anthropological and Environmental Context. *Acta Orientalia* 52: 243–276.
- Korotayev, A., Klimenko, V., and Proussakov, D. 2003.** Globalizing Trends in the Pre-Modern Islamic World and Modern Globalization. In Mahmoud `Ouda *et al.* (ed.), *Globalization and the Dialogue of Civilizations* (pp. 41–70). Cairo: Ain Shams University.
- Korotayev, A., Malkov, A., and Khaltourina, D. 2006a.** *Introduction to Social Macrodynamics: Compact Macromodels of the World System Growth*. Moscow: KomKniga/URSS.
- Korotayev, A., Malkov, A., and Khaltourina, D. 2006b.** *Introduction to Social Macrodynamics: Secular Cycles and Millennial Trends*. Moscow: KomKniga/URSS.
- Korotayev, A., Zinkina, J., Bogevolnov, J., and Malkov A. 2011.** Global Unconditional Convergence among Larger Economies after 1998? *Journal of Globalization Studies* 2(2): 25–62.
- Kradin, N. N., Bondarenko, D. M., and Barfield, T. J. 2003. (Eds.).** *Nomadic Pathways in Social Evolution*. Moscow: Center for Civilizational and Regional Studies RAS.
- Kremer, M. 1993.** Population Growth and Technological Change: One Million B.C. to 1990. *The Quarterly Journal of Economics* 108: 681–716.
- Kuijt, I. 2000. (Ed.).** *Life in Neolithic Farming Communities. Social Organization, Identity, and Differentiation*. New York: Kluwer.
- Lamberg-Karlovsky, C. C., and Sabloff J.A. 1979.** *Ancient civilizations. The Near East and Mesoamerica*. Menlo Park, CA: The Benjamin/Cummins.
- Lamberg-Karlovsky, C. C., and Sabloff J.A. 1992.** *Ancient civilizations. The Near East and Mesoamerica*. Moscow: Nauka. *In Russian*.

- Lattimore, O. 1940.** *Inner Asian Frontiers of China*. New York: American Geographical Society.
- Lewis, D., and Moore, K. 2009.** *The Origins of Globalization*. London: Routledge.
- Lieberman, S. 1972. (Ed.).** *Europe and the Industrial Revolution*. Cambridge, MA: Schenkman.
- Mair, V. H. 2006. (Ed.).** *Contact and Exchange in the Ancient World* (pp. 30–61). Honolulu: University of Hawai'i Press.
- Markov, A. V., and Korotayev, A. V. 2007.** Phanerozoic Marine Biodiversity Follows a Hyperbolic Trend. *Palaeoworld* 16: 311–318.
- Marshall, T. Ch. 2005 [1959].** The Nature of the Class Conflict. *Lichnost. Cultura. Obschestvo* 25: 18–30. *In Russian*.
- Mazlish, B., and Iriye, A. 2005. (Eds.).** *The Global History Reader*. New York – London: Routledge.
- McNeill, W. H. 1976.** *Plagues and Peoples*. New York: Monticello.
- Mellaart, J. 1975.** *The Neolithic of the Near East*. London: Thames and Hudson.
- Mellaart, J. 1982.** *The Most Ancient Civilizations of the Near East*. Moscow: Nauka. *In Russian*.
- Menard, R. 1991.** Transport Costs and Long-Range Trade, 1300–1800: Was There a European 'Transport Revolution' in the Early Modern Era? In J. D. Tracy (ed.), *Political Economy of Merchant Empires* (pp. 228–275). Cambridge: Cambridge University Press.
- Mokyr, J. 1985.** *The Economics of the Industrial Revolution*. London: George Allen & Unwin.
- Mokyr, J. 1993. (Ed.).** *The British Industrial Revolution: an Economic Perspective*. Boulder, CO: Westview.
- More, C. 2000.** *Understanding the Industrial Revolution*. London: Routledge.
- O'Rourke, K. H., and Williamson, J. G. 1999.** *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*. Cambridge, MA: MIT Press.
- O'Rourke, K. H., and Williamson, J. G. 2000.** *When did Globalization Begin?* NBER Working Paper 7632. Cambridge, MA: NBER.
- Pantin, V. I. 2003.** *Cycles and Waves of Global History. Globalization in terms of History*. Moscow: Novyi vek. *In Russian*.
- Peregrine, P. 2003.** Atlas of Cultural Evolution. *World Cultures* 14: 2–88.
- Peregrine, P., and Ember, M. 2001a. (Eds.).** *Encyclopedia of Prehistory*. Vol. 4. *Europe*. New York: Kluwer.
- Peregrine, P., and Ember, M. 2001b. (Eds.).** *Encyclopedia of Prehistory*. Vol. 8. *South and Southwest Asia*. New York: Kluwer.
- Phyllis, D. 1965.** *The First Industrial Revolution*. Cambridge: University Press.
- Povalikhina, T. I. 2002.** The USA Economic Might in the Post-War World. In Golubovich, V. I. (ed.), *The Foreign Countries' Economic History* (pp. 410–442). Minsk: Interpress-service. *In Russian*.
- Reed, Ch. A. 1977. (Ed.).** *Origins of Agriculture*. The Hague: Mouton.
- Rindos, D. 1984.** *The Origins of Agriculture: an Evolutionary Perspective*. Orlando, CA: Academic Press.
- Rumyantsev, A. M. 1987.** *The Primitive Productive Mode (the Political and Economic Essays)*. Moscow: Nauka. *In Russian*.

- Schultz, E. A., and Lavenda, R. H. 1998.** *Anthropology. A Perspective on the Human Condition*. 2nd ed. Mountain View, CA: Mayfield.
- Sharp, P. 2008.** Why Globalization Might Have Started in the Eighteenth Century. *VoxEU*. May 16, 2008.
- Sherratt, A. 2006.** The Trans-Eurasian Exchange: The Prehistory of Chinese Relations with the West. In Mair, V. H. (ed.), *Contact and Exchange in the Ancient World* (pp. 30–61). Honolulu: University of Hawai'i Press.
- Slezkin, L. Yu. 1983.** The Establishment of the First English Colonies in North America. In Bolkhovitinov, N. N. (ed.), *The History of the USA*. Vol. 1 (pp. 15–49). Moscow: Nauka. *In Russian*.
- Smith, Ph. E. L. 1976.** *Food Production and Its Consequences*. Menlo Park, CA: Cumming Publishing Company.
- Solovyov, S. A., and Yevzerov, R. Ya. 2001.** The Monopolistic Capitalism of the Early 20th Century in the Western Europe and Countries and the USA. In Grigorieva, I. V. (ed.), *Modern History of Europe and America. Early 1870s – 1918* (pp. 267–299). Moscow: Moscow University Press. *In Russian*.
- Stearns, P. N. 1993.** Interpreting the Industrial Revolution. In Adams, M. (ed.), *Islamic and European Expansion. The Forging of a Global Order* (pp. 199–242). Philadelphia, PA: Temple University Press.
- Stearns, P. N. 1998 (Ed.).** *The Industrial Revolution in the World History*. 2nd ed. Boulder, CO: Westview.
- Teggard, F. 1939.** *Rome and China: A Study of Correlation in Historical Events*. Berkeley: University of California Press.
- Tekin, A. 2005.** On the Futures of Sovereignty. *Futures* 37: 563–566.
- Tracy J. D. 1990.** Introduction. In Tracy J. D. (ed.), *The Rise of Merchant Empires* (pp. 1–13). Cambridge: Cambridge University Press.
- Walker, R. B. J., and Mendlovitz, S. H. 1990a (Eds.).** *Contending Sovereignties: Redefining Political Community*. Boulder, CO: Lynne Rienner.
- Walker, R. B. J., and Mendlovitz, S. H. 1990b.** Interrogating State Sovereignty. In Walker and Mendlovitz 1990a.
- Wallerstein, I. 1974, 1980, 1988.** *The Modern World-System*. 3 vols. New York: Academic Press.
- Wallerstein, I. 1987.** World-Systems Analysis. In Giddens A., and Turner, J. (eds.), *Social Theory Today* (pp. 309–324). Cambridge: Polity Press.
- Wallerstein, I. 2004.** *World-Systems Analysis: An Introduction*. Durham, NC: Duke University Press.
- Weiss, L. 2003. (Ed.).** *States in the Global Economy: Bringing Domestic Institutions Back In*. New York – Cambridge.
- Wenke, R. J. 1990.** *Patterns in Prehistory*. New York – Oxford: Oxford University Press.
- Wilkinson, D. 1987.** Central Civilization. *Comparative Civilizations Review* 17: 31–59.

Continuities and Transformations in the Evolution of World-Systems

Christopher Chase-Dunn

This paper discusses continuities and transformations of systemic logics and modes of accumulation in world historical evolutionary perspective and the prospects for systemic transformation in the next several decades. It also considers the meaning of the recent global financial meltdown by comparing it with earlier debt crises and periods of collapse. Has this been just another debt crisis like the ones that have periodically occurred over the past 200 years, or is it part of the end of capitalism and the transformation to a new and different logic of social reproduction? I consider the contemporary network of global counter-movements and progressive national regimes that are seeking to transform the capitalist world-system into a more humane, sustainable and egalitarian civilization and how the current crisis is affecting the network of antisystemic movements and regimes, including the Pink Tide populist regimes in Latin America and the anti-austerity movements. I describe how the New Global Left is similar to, and different from, earlier global lefts. The point is to develop a comparative and evolutionary framework that can discern what is really new about the current global situation and that can inform collectively rational responses.

Introduction

I employ three different time horizons in the discussion of continuities and transformations:

1. 50,000 years;
2. 5,000 years;
3. 500 years.

Hall and Chase-Dunn (2006; see also Chase-Dunn and Hall 1997) have modified the concepts developed by the scholars of the modern world-system to construct a theoretical perspective for comparing the modern system with earlier regional world-systems. The main idea is that sociocultural evolution can only be explained if polities are seen to have been in important interaction with each other since the Paleolithic Age. Hall and Chase-Dunn (2006) propose a general model of the continuing causes of the evolution of complexity, technology and hierarchy within polities and in linked systems of polities (world-systems). This is called the iteration model and it is driven by population pressures interacting with environmental degradation and interpolity conflict. This iteration model depicts basic causal forces that were operating in the Stone Age and that continue to operate in the contemporary global system (see also Chase-Dunn and Hall 1997: ch. 6; Fletcher *et al.* 2011). These are the continuities.

The most important idea that comes out of this theoretical perspective is that transformational changes in institutions, social structures and developmental logics are

Globalistics and Globalization Studies 2013 36–55

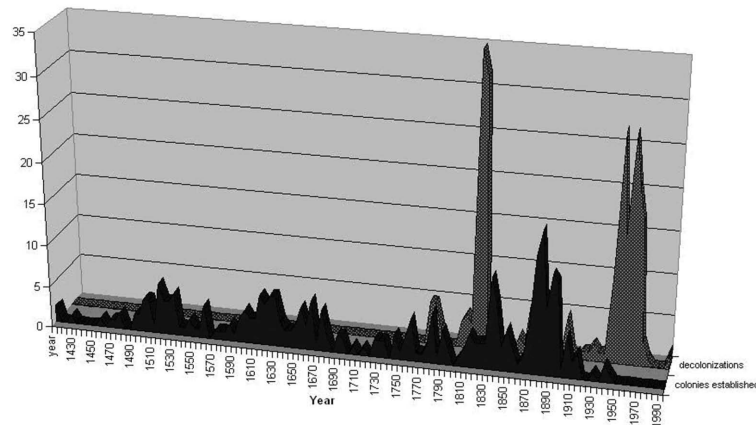
brought about mainly by the actions of individuals and organizations within polities that are **semiperipheral** relative to the other polities in the same system. This is known as the *hypothesis of semiperipheral development*.

As regional world-systems became spatially larger and the polities within them grew and became more internally hierarchical, interpolity relations also became more hierarchical because new means of extracting resources from distant peoples were invented. Thus did core/periphery hierarchies emerge. Semiperipherality is the position of some of the polities in a core/periphery hierarchy. Some of the polities that are located in semiperipheral positions became the agents that formed larger chiefdoms, states and empires by means of conquest (semiperipheral marcher polities), and some specialized trading states in between the tributary empires promoted production for exchange in the regions in which they operated. So both the spatial and demographic scale of political organization and the spatial scale of trade networks were expanded by semiperipheral polities, eventually leading to the global system in which we now live.

The modern world-system came into being when a formerly peripheral and then semiperipheral region (Europe) developed an internal core of capitalist states that were eventually able to dominate the polities of all the other regions of the Earth. This Europe-centered system was the first one in which capitalism became the predominant mode of accumulation, though semiperipheral capitalist city-states had existed since the Bronze Age in the spaces between the tributary empires. The Europe-centered system expanded in a series of waves of colonization and incorporation (see Fig. 1). Commodification in Europe expanded, evolved and deepened in waves since the thirteenth century, which is why historians disagree about when capitalism became the predominant mode of accumulation. Since the fifteenth century the modern system has seen four periods of hegemony in which leadership in the development of capitalism was taken to new levels. The first such period was led by a coalition between Genoese finance capitalists and the Portuguese crown (Wallerstein 2011[1974]; Arrighi 1994). After that the hegemons have been single nation-states: the Dutch in the seventeenth century, the British in the nineteenth century and the United States in the twentieth century (Wallerstein 1984a). Europe itself, and all four of the modern hegemons, were former semiperipheries that first rose to core status and then to hegemony.

In between these periods of hegemony were periods of hegemonic rivalry in which several contenders strove for global power. The core of the modern world-system has remained multicentric, meaning that a number of sovereign states ally and compete with one another. Earlier regional world-systems sometimes experienced a period of core-wide empire in which a single empire became so large that there were no serious contenders for predominance. This did not happen in the modern world-system until the United States became the single super-power following the demise of the Soviet Union in 1989.

Fig. 1. Waves of Colonization and Decolonization since 1400 – Number of colonies established and number of decolonizations (data from Henige 1970)



The sequence of hegemonies can be understood as the evolution of global governance in the modern system. The interstate system as institutionalized at the Treaty of Westphalia in 1648 is still a fundamental institutional structure of the polity of the modern system. The system of theoretically sovereign states was expanded to include the peripheral regions in two large waves of decolonization (see Fig. 1), eventually resulting in a situation in which the whole modern system became composed of sovereign national states. East Asia was incorporated into this system in the nineteenth century, though aspects of the earlier East Asian tribute-trade state system were not completely obliterated by that incorporation (Hamashita 2003).

Each of the hegemonies was larger as a proportion of the whole system than the earlier one had been. And each hegemony developed the institutions of economic and political-military control by which it led the larger system so that capitalism increasingly deepened its penetration of all the areas of the Earth. After the Napoleonic Wars, in which Britain finally defeated its main competitor for system-wide hegemony, France, global political institutions began to emerge over the tops of the Westphalian international system of national states. The first proto-world-government was the Concert of Europe, a fragile flower that wilted when its main proponents, Britain and the Austro-Hungarian Empire, disagreed about how to handle the world revolution of 1848. The Concert was followed by the League of Nations and then by the United Nations and the Bretton Woods international financial institutions (The World Bank, the International Monetary Fund and eventually the World Trade Organization).

The political globalization evident in this trajectory of global governance evolved because the powers were in heavy contention with one another for geopolitical predominance and for economic resources, but also because resistance emerged within the polities of the core and in the regions of the non-core. The series of hegemonies, waves of colonial expansion and decolonization and the emergence of a proto-world-state occurred as the global elites struggled with one another with resistance from below. The waves of decolonization were accompanied by slave revolts, the rise of the labor movement,

the extension of citizenship to men of no property, the women's movement and other associated rebellions and social movements.

These movements affected the evolution of global governance in part because the rebellions often clustered together in time, forming what have been called '*world revolutions*' (Arrighi *et al.* 1989). The Protestant Reformation in Europe was an early instance that played a huge role in the rise of the Dutch hegemony. The French Revolution of 1789 was linked in time with the American and Haitian revolts. The 1848 rebellion in Europe was both synchronous with the Taiping Rebellion in China and was linked with it by the diffusion of ideas, as it was also linked with the emergent Christian Sects in the United States. Nineteen seventeen was the year of the Bolsheviks in Russia, but also the same decade saw the Chinese Nationalist revolt, the Mexican Revolution, the Arab Revolt and the General Strike in Seattle led by the Industrial Workers of the World in the United States. Nineteen sixty-eight was a revolt of students in the U.S., Europe, Latin America as well as Red Guards in China. Nineteen eighty-nine was mainly in the Soviet Union and Eastern Europe, but important lessons about the value of civil rights beyond justification for capitalist democracy were learned by an emergent global civil society (Kaldor 2003).

The current world revolution of '20xx' (Chase-Dunn and Niemeyer 2009) will be discussed as a contemporary instance of global struggle. The big idea here is that the evolution of capitalism and of global governance is importantly *a response to resistance and rebellions from below*. This has been true in the past and is likely to continue to be true in the future. Boswell and Chase-Dunn (2000) contend that capitalism and socialism have dialectically interacted with one another in a positive feedback loop similar to a spiral. Labor and socialist movements were obviously a reaction to capitalist industrialization. U.S. hegemony and the post-World War II global institutions were importantly spurred on by the World Revolution of 1917 and the waves of decolonization.

Time Horizons

So what does the comparative and evolutionary world-systems perspective tell us about continuities and transformations of systemic logic? And what can be said about the financial meltdown of 2008 and the contemporary world revolution from the long-run perspective? Are recent developments just another bout of financial expansion and collapse and hegemonic decline? Or do they constitute or portend a deep structural crisis in the capitalist mode of accumulation? What do recent events signify about the evolution of capitalism and its possible transformation into a different mode of accumulation?

50,000 Years

From the perspective of the last 50,000 years the big news is demographic and ecological. After slowly expanding, with cyclical ups and downs in particular regions, for millennia the human population went into a steep upward surge in the last two centuries. Humans have been degrading the environment locally and regionally since they began the intensive use of natural resources. But in the last 200 years of industrial production ecological degradation by means of resource depletion and pollution has become global in scope, with global warming as the biggest consequence. A demographic transition to an equilibrium population size began in the industrialized core countries in the nineteenth

century and has spread unevenly to the non-core in the twentieth century. Public health measures have lowered the mortality rate and the education and employment of women outside of the home is lowering the fertility rate. But the total number of humans is likely to keep increasing for several more decades. In the year 2000 there were about six billion humans on Earth. But the time the population stops climbing it will be 8, 10 or 12 billion.

This population big bang was made possible by industrialization and the vastly expanded use of non-renewable fossil fuels. Fossil fuels are captured ancient sunlight that took millions of years to accrete as plants and forests grew, died and were compressed into oil and coal. The arrival of peak oil production is near and energy prices are likely to rise again after a long fall. The financial meltdown of 2008 was related to these long-run changes in the sense that it was brought about partly by sectors of the global elite trying to protect their privileges and wealth by seeking greater control over natural resources and by over-expanding the financial sector. But non-elites are also implicated. The housing expansion, suburbanization, and larger houses with fewer people in them have been important mechanisms, especially in the United States, for incorporating some of the non-elites into the hegemonic globalization project of corporate capitalism. The culture of consumerism has become strongly enconced both for those who actually have expanded consumption and as a strong aspiration for those who hope to increase their consumption to the levels of the core.

5,000 Years

The main significance of the 5,000-year time horizon is to point us to the rise and decline of modes of accumulation. The story here is that small-scale human polities were integrated primarily by normative structures institutionalized as kinship relations – the so-called *kinship-based modes of accumulation*. The family was the economy and the polity, and the family was organized as a moral order of obligations that allowed social labor to be mobilized and coordinated, and that regulated distribution. Kin-based accumulation was based on shared languages and meaning systems, consensus-building through oral communication, and institutionalized reciprocity in sharing and exchange. As kin-based polities got larger they increasingly fought with one another and those polities that developed institutionalized inequalities had group selection advantages over those that did not. Kinship itself became hierarchical within chiefdoms, taking the form of ranked lineages or conical clans. Social movements utilizing religious discourses were important forces of social change within these small-scale polities. Kin-based societies often responded to population pressures on resources by ‘hiving-off’ – a subgroup would emigrate, usually after formulating grievances in terms of violations of the moral order or disagreements regarding spiritual knowledge. But migrations were mainly responses to local resource stress caused by population growth and competition for natural resources. When new unoccupied, or only lightly occupied but resource-rich, lands were reachable the humans moved in to them, eventually populating all the continents except Antarctica. Once the land was filled up a situation of ‘circumscription’ emerged in which the costs of migration were higher because unoccupied or lightly occupied land was no longer available. This raised the level of conflict within and between polities raising the mortality rate and serving as a demographic regulator (Fletcher *et al.* 2011). In these circumstances

technological and organizational innovations were stimulated and successful new strategies were strongly selected for by interpolity competition, leading to the emergence of complexity, hierarchy and a new logic of social reproduction based on institutionalized coercion.

Around five thousand years ago the first early states and cities emerged in Mesopotamia over the tops of the kin-based institutions. This was the beginning of the tributary mode of accumulation in which state power (legitimate coercion) became the main organizer of the economy, the mobilizer of labor and the accumulator of wealth and power. Similar innovations occurred largely independently in Egypt, the Yellow (Huang-Ho) river valley, the Indus river valley, and later in Mesoamerica and the Andes. These developments are a strong case of the phenomenon of parallel evolution in which similar forces cause the emergence of similar innovations in social structure. The tributary mode of production evolved as states and empires became larger and as the techniques of imperialism, facilitating the exploitation of distant resources, were improved. This was mainly the work of *semiperipheral marcher states* (Alvarez *et al.* 2011). Aspects of the tributary mode (taxation, tribute-gathering, accumulation by dispossession) are still with us, but they have been largely subsumed and made subservient to the logic of capitalist accumulation based on profit-making. Crises and social movements were often involved in the wars and conquests that brought about social change and the evolution of the tributary mode.

The tributary mode became the predominant logic of social reproduction in the Mesopotamian world-system in the early Bronze Age (around 3000 BCE). The East Asian regional world-system was still predominantly tributary in the nineteenth century CE. That is nearly a 5,000-year run. The kin-based mode lasted even longer. All human groups were organized around different versions of the kin-based modes in the Paleolithic, and indeed since human culture had first emerged with language. If we date the beginning of the end of the kin-based modes at the coming to predominance of the tributary mode in Mesopotamia (3000 BCE) this first qualitative change in the basic logic of social reproduction took more than 100,000 years.

500 Years

This brings us to the capitalist mode, here defined as based on the accumulation of profits returning to commodity production rather than taxation or tribute. As we have already said, early forms of capitalism emerged in the Bronze Age in the form of small semiperipheral states that specialized in trade and the production of commodities. Dilmun, in the Persian Gulf, was a sovereign state that specialized in the carrying trade between Mesopotamia and the Indus civilization during the middle Bronze Age (about 2500 BCE). It was not until the fifteenth century CE that capitalist accumulation became predominant in a regional world-system (Europe and its colonies). Capitalism was born in the semiperipheral capitalist city-states, but in Europe it moved to the core with the rise of the Dutch hegemony. The forerunners that further evolved capitalism (the modern hegemons) were former semiperipheral polities that rose to hegemony. Economic crises and world revolutions were important elements in the emergence and evolution of capitalism and global governance institutions.

Thus, in comparison with the earlier modes, capitalism is yet young. It has been around since the middle Bronze Age (2500 BCE), but it took about four millennia to become the predominate developmental logic in a world-system. On the other hand, many have observed that social change in general has speeded up. The rise of tribute-taking based on institutionalized coercion took more than 100,000 years. The rise of capitalism took four millennia from its emergence in the Bronze Age to its becoming the predominant mode of social reproduction in Europe. Capitalism itself speeds up social change because it revolutionizes technology so quickly that other institutions are brought along, and people have become adjusted to more rapid reconfigurations of culture and institutions. So it is plausible that the contradictions of capitalism may lead it to reach its limits much faster than the kin-based and tributary modes did.

Transformations between Modes

For Immanuel Wallerstein (2011[1974]), capitalism started in the long sixteenth century (1450–1640), grew larger in a series of cycles and upward trends, and is now nearing ‘asymptotes’ (ceilings) as some of its trends create problems that it cannot solve. Thus, for Wallerstein, the world-system became capitalist and then it expanded until it became completely global, and now it is coming to face a big crisis because certain long-term trends cannot be accommodated within the logic of capitalism (Wallerstein 2003). Wallerstein's evolutionary transformations come at the beginning and at the end. There is a focus on expansion and deepening as well as cycles and trends, but no periodization of world-system evolutionary stages of capitalism (Chase-Dunn 1998: ch. 3). This is very different from both the older Marxist stage theories of national development and Giovanni Arrighi's depiction of successive (and overlapping) systemic cycles of accumulation. Wallerstein's emphasis is on the emergence and demise of ‘historical systems’ with capitalism defined as ‘ceaseless accumulation’. Some of the actors change their positions, but the system is basically the same as it gets larger. Its internal contradictions will eventually reach limits, and these limits are thought to be approaching within the next five decades.

According to Wallerstein (2003), the three long-term upward trends (ceiling effects) that capitalism cannot manage are:

- 1) the long-term rise of real wages;
- 2) the long-term costs of material inputs; and
- 3) rising taxes.

All three upward trends cause the average rate of profit to fall. Capitalists devise strategies for combating these trends (automation, capital flight, job blackmail, attacks on the welfare state and unions), but they cannot really stop them in the long run. Deindustrialization in one place leads to industrialization and the emergence of labor movements somewhere else (Silver 2003). The falling rate of profit means that capitalism as a logic of accumulation will face an irreconcilable structural crisis during the next 50 years, and some other system will emerge. Wallerstein calls the next five decades ‘The Age of Transition’.

Wallerstein sees recent losses by labor unions and the poor as temporary. He assumes that workers will eventually figure out how to protect themselves against globalized market forces and the ‘race to the bottom’. This may underestimate somewhat the difficulties

of mobilizing effective labor organization in the era of globalized capitalism, but he is probably right in the long run. Global unions and political parties could give workers effective instruments for protecting their wages and working conditions from exploitation by global corporations once the national and North/South issues that divide workers are overcome.

Wallerstein is intentionally vague about the organizational nature of the new system that will replace capitalism (as was Marx) except that he is certain that it will no longer be capitalism. He sees the declining hegemony of the United States and the crisis of neoliberal global capitalism as strong signs that capitalism can no longer adjust to its systemic contradictions. He contends that world history has now entered a period of chaotic and unpredictable historical transformation. Out of this period of chaos a new and qualitatively different non-capitalist system will emerge. It might be an authoritarian (tributary) global state that preserves the privileges of the global elite or it could be an egalitarian system in which non-profit institutions serve communities (Wallerstein 1998).

Stages of World Capitalist Development: Systemic Cycles of Accumulation

Giovanni Arrighi's (1994) evolutionary account of 'systemic cycles of accumulation' has solved some of the problems of Wallerstein's notion that world capitalism started in the long sixteenth century and then only went through repetitive cycles and trends. Arrighi's account is explicitly evolutionary, but rather than positing 'stages of capitalism' and looking for each country to go through them (as most of the older Marxists did), he posits somewhat overlapping global cycles of accumulation in which finance capital and state power take on new forms and increasingly penetrate the whole system. This was a big improvement over both Wallerstein's world cycles and trends and the traditional Marxist national stages of capitalism.

Arrighi's (1994, 2006) 'systemic cycles of accumulation' are more different from one another than are Wallerstein's cycles of expansion and contraction and upward secular trends. And Arrighi (2006) has made more out of the differences between the current period of the U.S. hegemonic decline and the decades at the end of the nineteenth century and the early twentieth century when British hegemony was declining. The emphasis is less on the beginning and the end of the capitalist world-system and more on the evolution of new institutional forms of capitalist accumulation and the increasing incorporation of modes of control into the logic of capitalism. Arrighi (2006), taking a cue from Andre Gunder Frank (1998), saw the rise of China as portending a new systemic cycle of accumulation in which 'market society' will eventually come to replace rapacious finance capital as the leading institutional form in the next phase of world history. Arrighi did not discuss the end of capitalism and the emergence of another basic logic of social reproduction and accumulation. His analysis is more in line with the 'types of capitalism' and 'multiple modernities' literature, except that he is analyzing the whole system rather than separate national societies.

Arrighi sees the development of market society in China as a consequence of the differences between the East Asian and Europe-centered systems before their merger in the 19th century, and also as an outcome of the Chinese Revolution. His discussion of

Adam Smith's notions of societal control over finance capital is interesting, but he is vague as to what the forces that can counter-balance the power of finance capital might be. In China it is obviously the Communist Party and the new class of technocratic mandarins. This is somewhat similar in form to Peter Evans's (1979) discussion of the importance of technocrats in Brazilian, Japanese and Korean national development, though Arrighi does not say so.

Arrighi also provides a more explicit analysis of how the current world situation is similar to, and different from, the period of declining British hegemonic power before World War I (see summary in Chase-Dunn and Lawrence 2011: 147–151).

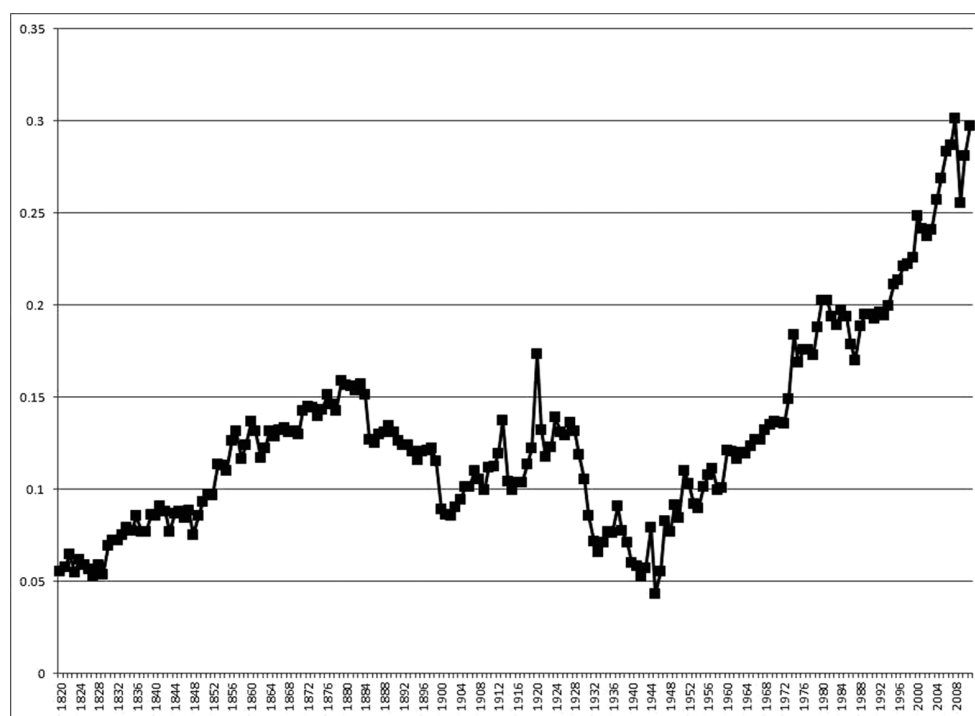
Wallerstein's version is more apocalyptic and more millenarian. The old world is ending. The new world is beginning. In the coming systemic bifurcation what people do may be prefigurative and causal of the world to come. Wallerstein agrees with the analysis proposed by the students of the New Left in 1968 (and large numbers of activists in the current global justice movement) that the tactic of taking state power has been shown to be futile because of the disappointing outcomes of the World Revolution of 1917 and the decolonization movements (but see below).

Economic Globalization

Regarding the issue of whether or not the recent meltdown is itself a structural crisis or the beginning of a long process of transformation, it is relevant to examine recent trends in economic globalization. Is there yet any sign that the world economy has entered a new period of deglobalization of the kind that occurred in the first half of the twentieth century?

Immanuel Wallerstein contends that globalization has been occurring for five hundred years, and so there is little that is importantly new about the so-called stage of global capitalism that is alleged to have emerged in the last decades of the twentieth century. Well before the emergence of globalization in the popular consciousness, the world-systems perspective focused on the world economy and the system of interacting polities, rather than on single national societies. Globalization, in the sense of the expansion and intensification of larger and larger economic, political, military and information networks, has been increasing for millennia, albeit unevenly and in waves. And globalization is as much a cycle as a trend (see Fig. 2). The wave of global integration that has swept the world in the decades since World War II is best understood by studying its similarities and differences with the waves of international trade and foreign investment expansion that have occurred in earlier centuries, especially the last half of the nineteenth century.

Wallerstein has insisted that U.S. hegemony is continuing to decline. He interpreted the U.S. unilateralism of the Bush administration as a repetition of the mistakes of earlier declining hegemonies that attempted to substitute military superiority for economic comparative advantage (Wallerstein 2003). Many of those who denied the notion of U.S. hegemonic decline during what Giovanni Arrighi (1994) called the 'belle epoch' of financialization have now come around to Wallerstein's position in the wake of the global financial crisis of 2008. Wallerstein contends that once the world-system cycles and trends, and the game of musical chairs that is capitalist uneven development, are taken into account, the 'new stage of global capitalism' does not seem that different from earlier periods.

Fig. 2. Trade Globalization 1820–2011: World Imports as a Percentage of World GDP

Sources: Chase-Dunn *et al.* 2000; World Bank 2012.

Fig. 2 is an updated version of the trade globalization series published in Chase-Dunn *et al.* (2000). It shows the great nineteenth century wave of global trade integration, a short and volatile wave between 1900 and 1929, and the post-1945 upswing that is characterized as the ‘stage of global capitalism’. The figure indicates that globalization is both a cycle and a bumpy trend. There have been significant periods of deglobalization in the late nineteenth century and in the first half of the twentieth century. Note the steep decline in the level of global trade integration in 2009 and the recovery by 2011.

The long-term upward trend has been bumpy, with occasional downturns such as the one shown in the 1970s. But the downturns since 1945 have all been followed by upturns that restored the overall upward trend of trade globalization. The large decrease of trade globalization in the wake of the global financial meltdown of 2008 represents a 21 % decrease from the previous year, the largest reversal in trade globalization since World War II. The question is whether or not this sharp decrease represents a reversal in the long upward trend observed over the past half century. Was this the beginning of another period of deglobalization?

The Financial Meltdown of 2007–2008

The financial crisis of 2008 has generated a huge scholarly literature and immense popular reflection about its causes and its meaning for the past and for the future of

world society. Chase-Dunn and Kwon (2011) attempt to determine the similarities and differences between this and earlier periods of dislocation and breakdown. They note that financial crises have been business as usual for the capitalist world-economy for the past several centuries. The theories of a 'new economy' and 'network society' were mainly justifications for hyperfinancialization. The big difference this time around is the gargantuan size of the bubble and the greater dependence of the rest of the world on the huge U.S. economy and the U.S. dollar sector. The somewhat successful re-inflating of the global financial bubble by the government-funded bail-out of Wall Street did not resolve basic structural problems, but it did avoid (so far) a true collapse, deflation, and the wiping out of the bloated mass of paper securities that have constituted the financial bubble.

The World Revolution of 20XX

The contemporary world revolution is similar to earlier ones, but also different. My conceptualization of the New Global Left includes civil society entities (individuals, social movement organizations, non-governmental organizations (NGOs)), but also political parties and progressive national regimes in Latin America. It is important to understand the relationships among the antisystemic movements and the progressive populist regimes that have emerged in Latin America in the last decade, as well as the Arab Spring that began in Tunisia in December of 2010 and the anti-austerity movements that have emerged in some of the second-tier core countries (Greece and Spain). We understand the Latin American 'Pink Tide' regimes to be an important part of the New Global Left, though it is well-known that the relationship between the transnational social movements and these regimes are both supportive and contentious.

The boundaries of the progressive forces that have come together in the New Global Left are fuzzy and the process of inclusion and exclusion is ongoing (Santos 2006). But the rules of inclusion and exclusion that are contained in the Charter of the World Social Forum, though still debated, have not changed much since their formulation in 2001.¹

The New Global Left has emerged as resistance to, and a critique of, global capitalism (Lindholm and Zuquete 2010). It is a coalition of social movements that includes recent incarnations of the older social movements that emerged in the nineteenth century (labor, anarchism, socialism, communism, feminism, environmentalism, peace, human rights) and movements that emerged in the world revolutions of 1968 and 1989 (queer rights, anti-corporate, fair trade, indigenous) and even more recent movements such as the slow food/food rights, global justice/alterglobalization, antiglobalization, health-HIV and alternative media (Reese *et al.* 2008).² The explicit focus on the Global South and global justice is somewhat similar to some earlier instances of the Global Left, especially the Communist International, the Bandung Conference and the anticolonial movements.

¹ The charter of the World Social Forum does not permit participation by those who attend as representatives of organizations that are engaged in, or that advocate, armed struggle. Nor are governments, confessional institutions or political parties supposed to send representatives to the WSF. See World Social Forum Charter <http://wsf2007.org/process/wsf-charter/>.

² The Transnational Social Movement Research Working Group at the University of California-Riverside has studied the movements participating in the World Social Forum since 2005. The project web page is at <http://www.irows.ucr.edu/research/tsmstudy.htm>.

The New Global Left contains remnants and reconfigured elements of earlier Global Lefts, but it is a qualitatively different constellation of forces because:

- 1) there are new elements;
- 2) the old movements have been reshaped; and
- 3) a new technology (the Internet) is being used to mobilize protests and to try to resolve North/South issues within movements and contradictions among movements.

There has also been a learning process in which the perceived earlier successes and failures of the older Global Lefts are being taken into account in order to not repeat the mistakes of the past. Many social movements have reacted to the neoliberal globalization project by going transnational to meet the challenges that are obviously not local or national (Reitan 2007). But some movements, especially those composing the Arab Spring, are focused mainly on regime change at home. The relations within the family of antisystemic movements and among the Latin American Pink Tide populist regimes are both cooperative and competitive. The issues that divide potential allies need to be brought out into the open and analyzed in order that cooperative efforts may be enhanced and progressive global collective action may become more effective.

The Pink Tide

The World Social Forum (WSF) is not the only political force that demonstrates the rise of the New Global Left. The WSF is embedded within a larger socio-historical context that is challenging the hegemony of global capital. It was this larger context that facilitated the founding of the WSF in 2001. The anti-IMF protests of the 1980s and the Zapatista rebellion of 1994 were early harbingers of the current world revolution that challenged the neoliberal capitalist order. And the World Social Forum was founded in 2001 explicitly as a counter-hegemonic project *vis-à-vis* the World Economic Forum (an annual gathering of global elites founded in 1971).

As we have discussed above, world history has proceeded in a series of waves. Capitalist expansions have ebbed and flowed, and egalitarian and humanistic counter-movements have emerged in a cyclical dialectical struggle. Polanyi (1944) called this the double-movement, while Boswell and Chase-Dunn (2000) have termed the 'spiral of capitalism and socialism'. This spiral describes the undulations of the global political economy that have alternated between expansive commodification throughout the global economy, followed by resistance movements on behalf of workers and other oppressed groups. The Reagan/Thatcher neoliberal capitalist globalization project extended the power of transnational capital. This project is nearing its ideological and material limits. It has increased inequality within some countries, exacerbated rapid urbanization in the Global South (so-called *Planet of Slums* [Davis 2006]), attacked the welfare state and institutional protections for the poor, and led to the global financial crisis of 2008.

A global network of counter-movements has arisen to challenge neoliberalism, neoconservatism and corporate capitalism in general. This progressive network is composed of increasingly transnational social movements as well as a growing number of populist governments in Latin America – the so-called Pink Tide. The Pink Tide is composed of populist leftist regimes that have come to state power in Latin America, some of which advocate dramatic structural transformation of the global political economy and world civilization.

An important difference between these and many earlier Leftist regimes in the non-core is that they have come to head up governments by means of popular elections rather than by violent revolutions. This signifies an important difference from earlier world revolutions. The spread of electoral democracy to the non-core has been part of a larger political incorporation of former colonies into the European interstate system. This evolutionary development of the global political system has mainly been caused by the industrialization of the non-core and the growing size of the urban working class in non-core countries (Silver 2003). While much of the 'democratization' of the Global South has consisted mainly of the emergence of 'polyarchy' in which elites manipulate elections in order to stay in control of the state (Robinson 1996), in many Latin American countries the Pink Tide Leftist regimes have been voted into power. This is a very different form of regime formation than the road taken by earlier Leftist regimes in the non-core. With a few exceptions earlier Left regimes came to state power by means of civil war or military coup.

The ideologies of the Latin American Pink Tide regimes have been both socialist and indigenist, with different mixes in different countries. The acknowledged leader of the Pink Tide as a distinctive brand of leftist populism is the Bolivarian Revolution led by Venezuelan President Hugo Chavez. But various other forms of progressive political ideologies are also heading up states in Latin America. Indigenist and socialist Evo Morales is the president of Bolivia. The Fidelistas in Cuba remain in power. The Brazilian Workers' Party is still an important player, though its elected presidents have been pragmatic politicians rather than revolutionary leaders. In Chile social democrats were in power from 1990 until 2010. Sandinistas in Nicaragua and the FMLN in El Salvador have elected national leaders. Argentina bravely and unilaterally restructured its own debt obligations in 2005. The President of Peru is a leftist. And several European-style social democrats lead some of the Caribbean islands.

Most of these regimes are supported by the mobilization of historically subordinate populations including the indigenous, poor, and women. The rise of the voiceless and the challenge to neoliberal capitalism seemed to have its epicenter in Latin America before the emergence of the Arab Spring. While there are important differences of emphasis among these Latin American regimes, they have much in common, and as a whole they constitute an important bloc of the New Global Left. I agree with William I. Robinson's (2008) assessment of the Bolivarian Revolution and its potential to lead the global working class in a renewed challenge to transnational capitalism.

The rise of the left has engulfed nearly all of South America and a considerable portion of Central America and the Caribbean. Why has Latin America been the site of both populist Leftist regimes and most of the transnational social movements that contest neoliberal capitalist globalization up until recently? Latin America as a world region is the home of a large number of semiperipheral countries. These countries have more options to pursue independent strategies than the mainly peripheral countries of Africa do. But some of the Pink Tide countries in Latin America are also peripheral. There has been a strong regional effect that has been absent in Africa and Asia. The Pink Tide phenomenon and the anti-neoliberal social movements have been concentrated in Latin America because the foremost proponent of the neoliberal policies has been the United States. Latin

America has long been the neocolonial 'backyard' of the United States. Most of the people of Latin America think of the United States as the 'colossus of the North'. The U.S. has been the titular hegemon during the period of the capitalist globalization project. Just as the propensity to strike is the greatest in company towns because the power structure has a single pinnacle, so has the political challenge to neoliberalism been strongest in that region of the world in which the U.S. is the most prominent. Both Africa and Asia have a more complicated relationship with former colonial powers and with the U.S. hegemony.

President of Venezuela Hugo Chavez was perhaps the most vocal advocate of an alternative to global capitalism, and his advocacy was greatly aided by the massive Venezuelan oil reserves. The *Banco del Sur* (Bank of the South) that Chavez has founded, for example, has been joined by several Pink Tide nations and seeks to replace the International Monetary Fund and the World Bank in sponsoring development projects throughout the Americas. The goal is to become independent of the capitalist financial institutions headquartered in the Global North.

The early Structural Adjustment Programs imposed by the International Monetary Fund in Latin America in the 1980s were instances of 'shock therapy' that emboldened domestic neoliberals to attack the 'welfare state', unions and workers parties. In many countries these attacks resulted in downsizing and streamlining of urban industries, and workers in the formal sector lost their jobs and were forced into the informal economy, swelling the 'planet of slums' (Davis 2006). This constitutes the formation of a globalized working class as described by Bill Robinson (2008). In several countries the swollen urban informal sector was mobilized by political leaders into new populist movements and parties, and in some of these the movements were eventually successful in electing their leaders to national power, creating the Pink Tide regimes. Thus did neoliberal Structural Adjustment Programs provoke counter-movements that eventuated in the Pink Tide regimes.

The very existence of the World Social Forum owes much to the Pink Tide regime in Brazil. The Brazilian transition from authoritarian rule in the 1980s politicized and mobilized civil society, contributing to the elections of leftist presidents. One of these was Fernando Henrique Cardoso, a famous Brazilian sociologist who was one of the founders of dependency theory. The Brazilian city of Porto Alegre, where the first World Social Forum meetings were held, had been a stronghold for the Brazilian Workers' Party. The World Social Forum was born in Porto Alegre with indispensable help from the Brazilian Workers' Party and its former leader who had been elected President of Brazil, Luis Inácio Lula da Silva. The political trend of the Pink Tide was an important element in context and conditions that allowed for the rise of the World Social Forum.

The relations between the progressive transnational social movements and the regimes of the Pink Tide have been both collaborative and contentious. We have already noted the important role played by the Brazilian Workers' Party in the creation of the World Social Forum. But many of the activists in the movements see involvement in struggles to gain and maintain power in existing states as a trap that is likely to simply reproduce the injustices of the past. These kinds of concerns have been raised by anarchists since the nineteenth century, but autonomists from Italy, Spain, Germany and France now echo these concerns. And the Zapatista movement in Southern Mexico, one of the sparks that ignited the global

justice movement against neoliberal capitalism, has steadfastly refused to participate in Mexican electoral politics. Indeed the New Left led by students in the World Revolution of 1968 championed a similar critical approach to the old parties and states of the Left as well as involvement in electoral politics. As mentioned above, Immanuel Wallerstein (1984b, 2003) agrees with this antistatist political stance. This antipolitics-as-usual has become embodied in the Charter of the World Social Forum, where representatives of parties and governments are theoretically proscribed from sending representatives to the WSF meetings (see Footnote 1 above).

The older Leftist organizations and movements are often depicted as hopelessly Eurocentric and undemocratic by the neo-anarchists and autonomists, who instead prefer participatory and horizontalist network forms of democracy and eschew leadership by prominent Leftist intellectuals as well as by existing heads of state. Thus when Lula, Chavez and Morales have tried to participate in the WSF, crowds have gathered to protest their presence. The organizers of the WSF have found various compromises, such as locating the speeches of Pink Tide politicians at adjacent, but separate, venues. An exception to this kind of contention is the support that European autonomists and anarchists have provided to Evo Morales's regime in Bolivia (*e.g.*, López and Turrión 2006). Many of the activists in the Occupy movement that began in New York City in the Fall of 2011 had a similar attitude toward formal organization and hierarchy. The movement described itself as 'leaderless' and focused on direct democratic decision-making in face-to-face groups.

Latin America has been the epicenter of the contemporary world revolution. If the movements and the progressive regimes could work together this would be an energizing model for the other regions of the globe. The challenges are daunting but the majority of humankind needs organizational instruments with which to democratize global governance and the World Social Forum has been designed to be the venue from which such instruments could be organized.

The Meltdown and the Counter-Movements

What have been the effects of the global financial meltdown on the transnational social movements and the progressive national regimes? The World Social Forum slogan that 'Another World Is Possible' seems far more appealing now than when the capitalist globalization project was booming. Critical discourse has been taken more seriously by a broader audience. Marxist geographer David Harvey has been interviewed on the BBC. The millenarian discourses of the Pink Tide regimes and the radical social movements seem to be at least partly confirmed. The 'end of history' triumphalism and theories of the 'new economy' seem to have been swept into the dustbin. The world-systems perspective has found greater support, at least among earlier critics such as the more traditional Marxists. The insistence of Wallerstein, Arrighi, and others that U.S. hegemony is in long-term decline has now found wide acceptance.

On a more practical level, most of the social movement organizations and NGOs have had more difficulty raising money, but this has been counterbalanced by increased participation (Allison *et al.* 2011). The environmental movement has received some setbacks because the issue of high unemployment has come to the fore. The Copenhagen

environmental summit was largely understood to have been a failure. The wide realization that energy costs are going to go further up has increased the numbers who support the further development of nuclear energy, despite its long-run environmental costs. But the Japanese earthquake and Fukushima Dai-Ichi nuclear meltdown of 2011 has led to the declaration of a non-nuclear future by the German government. And the radical alternative of indigenous environmentalism has gotten a boost (Wallerstein 2010). The World People's Conference on Climate Change and the Rights of Mother Earth, held in Cochabamba, Bolivia in April of 2009, discussed a Universal Declaration of the Rights of Mother Earth, a World People's Referendum on Climate Change, and the establishment of a Climate Justice Tribunal. The meeting was attended by 30,000 activists from more than 100 countries, and was financially supported by the governments of Bolivia and Venezuela.

Arab Spring, European Summer and the Occupy Movement

The movements that have swept the Arab world since December of 2010 are also part of the world revolution of 20xx and they may yet play a role in the New Global Left.³ As in earlier world revolutions, contagion and new technologies of communication have been important elements. And as in earlier world revolutions, rather different movements stimulated by different local conditions converged in time to challenge the powers that be. But the Arab Spring movements have been rather different from the global justice movements. Their targets have mainly been authoritarian national regimes rather than global capitalism. Demonstrators have used *Facebook* to organize mainly peaceful protests that have succeeded in causing old entrenched regimes to step down. The countries in which these movements have succeeded are not the poorest countries in Africa and the Middle East. Rather they have been semiperipheral countries in which a large mobilizable group of young people had access to social media. In most cases the old autocrats had been trying to implement austerity programs in order to be able to borrow more money from abroad and this set the stage for the mass movements. But the Arab Spring movements have not explicitly raised the issues of austerity and global financial dependency.⁴

The issues raised by the Arab Spring movements were mainly about national democracy, not global justice. But the example of masses of young people rallying against unpopular regimes in 2011 spread to the second-tier core states of Europe. Both Spain and Greece saw large anti-austerity demonstrations that were inspired by the successes of the Arab Spring. And in these cases the connection with the global financial crisis is even more palpable. The austerity programs were the conditions imposed by global finance capital for reinflating the accumulation structures of these countries of the European second-tier core. The popular anti-austerity rebellions might provoke an even deeper financial collapse if investors and their institutional agents lose faith in the ability of the system to reproduce the existing structures of accumulation. And anti-austerity movements have also spread to the core states, where severe fiscal crises have led to the dismantling of public services. The rise of the Occupy movement in New York City in 2011 and its rapid

³ The World Social Forum will be held in Tunisia in 2013.

⁴ The NATO intervention in Libya illustrated both the illegitimacy of the Gaddafi regime and of the nascent global state that deposed him.

spread to even small towns in the USA and to cities all over the world shows that popular resistance to global finance capital is indeed widespread (Chase-Dunn and Curran-Strange 2012).

Conclusions

So do recent developments constitute the beginning of a terminal crisis of capitalism or just another systemic cycle of accumulation? As mentioned above, predominant capitalism has not been around very long from the point of view of the succession of qualitatively different logics of social reproduction. But capitalism itself has speeded up social change and its contradictions do seem to be reaching levels that cannot be fixed. Declarations of imminent transformation are useful for mobilizing social movements, but an even greater contribution would be a clear specification of what is really wrong with capitalism and how these deficiencies can be fixed.

Regarding a new systemic cycle of accumulation, Arrighi's bet on the significance of the rise of China also needs clarification. As he has said, other countries have not experienced the trajectory that produced 'market society' in China, so how can forces emerge elsewhere that could counter-balance the power of national and global finance capital. And what kinds of forces could do this?

The rise of the anti-austerity movements in Spain and Greece and the Occupy Wall Street movement in the USA may portend the emergence of strong and effective anti-capitalist social movements in the core. The Occupy and anti-austerity movements interestingly borrowed tactics from the Arab Spring, including the use of social networking for organizing revolt and camping in central public spaces. The Occupy movement probably improved President Obama's chances for re-election by shining a spotlight on the growing inequalities within the USA and further movements of this kind might inspire the re-elected Obama administration to more energetically push for re-industrialization of the USA. This could slow or even reverse the USA economic decline. But the movements and the regime would have to overcome the still-strong legacy of Reaganism-Thatcherism, the political muscle of Wall Street and the Tea Party right-wing populists and disgruntled white voters who see the rise of Hispanic voting as a threat. Continued political stalemate in the USA is the most likely outcome, and this will result in the continued slow decline of U.S. hegemony. This is not surprising from the point of view of world-systemic cycles of hegemonic rise and fall.

But things seem more interesting in the semiperiphery and the Global South. So far the United States has not used much muscle in opposition to the rise of the Pink Tide in Latin America. Expensive U.S. military involvements in the Middle East and Central Asia have continued, and these may partly explain the relative inaction in Latin America. Can the progressive transnational social movements and the left populist regimes of the Pink Tide forge a coalition that can move toward greater global democracy? Could the emergent democratic regimes in the Arab world and protests against the austerity imposed by finance capital in the European second-tier core lead to a situation in which a strong force for global social democracy would challenge the powers that be? As in earlier world revolutions the institutions of global governance are likely to be reshaped by forces from below. Hopefully a more democratic and collectively rational global commonwealth can

emerge without the violence and totalitarianism that was so prevalent in the first half of the twentieth century.

Both a new stage of capitalism and a qualitative systemic transformation are possible within the next three decades, but a new stage of capitalism is more likely. The evolution of global governance occurs when enlightened conservatives implement the demands of an earlier world revolution in order to reduce the pressures from below that are brought to bear in a current world revolution. We think that the most likely outcome of the current crisis and world revolution will be some form of global Keynesianism in which part of the global elite forms a more legitimate and democratic set of global governance institutions to deal with some of the problems of the 21st century.

If U.S. hegemonic decline is slow, as it has been so far, and if financial and ecological crises and conflicts between ethnic groups and nations are spread out in time then the enlightened and pragmatic conservatives will have a chance to build another world order that is still capitalist but meets the current challenges at least partially. But if the perfect storm of calamities (Kuecker 2007; Kuecker and Hall 2011) should all come together in the same period the movements will have the chance to radically change the mode of accumulation to a form of global socialism.

Acknowledgement

Thanks to Roy Kwon, Anthony Roberts and Kirk Lawrence for help with this paper.

References

- Allison, J., Breckenridge-Jackson, I., Guenther, K. M., Lairy, A. Schwarz, E., Reese, E., Ruvalcaba, M. E., and Walker M. 2011. Is the Economic Crisis a Crisis for Social Justice Activism. *Policy Matters* 5(1). URL: <http://policymatters.ucr.edu>.
- Alvarez, A., Inoue, H., Lawrence, K., Courtney, E., Elias, E., Roberts, T., and Chase-Dunn, C. 2011. Semiperipheral Development and Empire Upsweeps since the Bronze Age. *IROWS Working Paper* No. 56. URL: <http://irows.ucr.edu/papers/irows56/irows56.htm>.
- Arrighi, G. 1994. *The Long Twentieth Century*. London: Verso.
- Arrighi, G. 2006. *Adam Smith in Beijing*. London: Verso.
- Arrighi, G., Hopkins, T. K., and Wallerstein, I. 1989. *Antisystemic Movements*. London: Verso.
- Boswell, T., and Chase-Dunn, C. 2000. *The Spiral of Capitalism and Socialism: Toward Global Democracy*. Boulder, CO: Lynne Rienner.
- Chase-Dunn, C. 1998. *Global Formation: Structures of the World-Economy*. Lanham, MD: Rowman and Littlefield.
- Chase-Dunn, C., and Curran-Strange, M. 2012. The Diffusion of the Occupy Movement in California. *IROWS Working Paper* No 74. URL: <http://irows.ucr.edu/papers/irows74/irows74.htm>.
- Chase-Dunn, C., Kawano, Y., and Brewer, B. 2000. Trade Globalization since 1795: Waves of Integration in the World-System. *American Sociological Review* 65(1): 77–95.
- Chase-Dunn, C., and Hall, T. D. 1997. *Rise and Demise: Comparing World-Systems*. Boulder, CO: Westview.

- Chase-Dunn, C., and Kwon, R. 2011.** Crises and Counter-Movements in World Evolutionary Perspective. In Suter, Ch., and Herkenrath, M. (eds.), *The Global Economic Crisis: Perceptions and Impacts* (World Society Studies 2011). Wien – Berlin – Zürich: LIT Verlag.
- Chase-Dunn, C., and Lawrence, K. 2011.** The Next Three Futures, Part One: Looming Crises of Global Inequality, Ecological Degradation, and a Failed System of Global Governance. *Global Society* 25(2): 137–153. URL: <http://irows.ucr.edu/papers/irows47/irows47.htm>.
- Chase-Dunn, C., and Niemeyer, R. E. 2009.** The World Revolution of 20xx. In Albert, M., Bluhm, G., Helmig, H., Leutzsch, A., and Walter, J. (eds.), *Transnational Political Spaces* (pp. 35–57). Frankfurt; New York: Campus Verlag.
- Davis, M. 2006.** *Planet of Slums*. London: Verso.
- Evans, P. B. 1979.** *Dependent Development: The Alliance of Multinational, State and Local Capital in Brazil*. Princeton University Press.
- Fletcher, J. B., Apkarian, J., Hanneman, R. A., Inoue, H., Lawrence, K., and Chase-Dunn, C. 2011.** Demographic Regulators in Small-Scale World-Systems. *Structure and Dynamics* 5(1).
- Frank, A. G. 1998.** *Reorient: Global Economy in the Asian Age*. Berkeley: University of California Press.
- Hall, T. D., and Chase-Dunn, C. 2006.** Global Social Change in the Long Run. In Chase-Dunn, C., and Babones, S. (eds.), *Global Social Change: Historical and Comparative Perspectives* (pp. 33–58). Baltimore: Johns Hopkins University Press.
- Hamashita, T. 2003.** Tribute and Treaties: Maritime Asia and Treaty Port Net Works in the Era of Negotiations, 1800–1900. In Arrighi, G., Hamashita, T., and Selden, M. (eds.), *The Resurgence of East Asia* (pp. 17–50). London: Routledge.
- Henige, D. P. 1970.** *Colonial Governors from the Fifteenth Century to the Present*. Madison, WI: University of Wisconsin Press.
- Kaldor, M. 2003.** *Global Civil Society*. London: Polity.
- Korzeniewicz, R. P., and Moran, T. P. 2009.** *Unveiling Inequality: A World Historical Perspective*. New York, NY: Russell Sage Foundation.
- Kuecker, G. D. 2007.** The Perfect Storm. *International Journal of Environmental, Cultural and Social Sustainability* 3.
- Kuecker, G. D., and Hall, T. D. 2011.** Facing Catastrophic Systemic Collapse: Ideas from Recent Discussions of Resilience, Community, and World-Systems Analysis. *Nature and Culture* 6(1): 18–40.
- Lindholm, C., and Zuquete, J. P. 2010.** *The Struggle for the World: Liberation Movements for the 21st Century*. Palo Alto, CA: Stanford University Press.
- López, J. E., and Turrión, P. I. 2006. (Eds.).** *Bolivia en movimiento. Acción colectiva y poder político*. URL: <http://www.nodo50.org/boliviaenmovimiento/>.
- Polanyi, K. 1944.** *The Great Transformation*. New York: Farrar & Rinehart.
- Reese, E., Chase-Dunn, C., Anantram, K., Coyne, G., Kaneshiro, M., Koda, A. N., Kwon, R., and Saxena, P. 2008.** Research Note: Surveys of World Social Forum Participants Show Influence of Place and Base in the Global Public Sphere. *Mobilization: An*

International Journal 13(4): 431–445. (Revised version in *A Handbook of the World Social Forums* Ed. by Smith, J., Byrd, S., Reese, E., and Smythe, E. Paradigm Publishers).

Reitan, R. 2007. *Global Activism*. London: Routledge.

Robinson, W. I. 1996. *Promoting Polyarchy: Globalization, US Intervention and Hegemony*. Cambridge: Cambridge University Press.

Robinson, W. I. 2008. *Latin America and Globalization*. Baltimore: Johns Hopkins University Press.

Santos, B. de S. 2006. *The Rise of the Global Left*. London: Zed Press.

Silver, B. J. 2003. *Forces of Labor: Workers Movements and Globalization since 1870*. Cambridge: Cambridge University Press.

Wallerstein, I. 1984a. The Three Instances of Hegemony in the History of the Capitalist World-Economy. In Lenski, G. (ed.), *Current Issues and Research in Macrosociology* (pp. 100–108). *International Studies in Sociology and Social Anthropology*. Vol. 37. Leiden: E. J. Brill.

Wallerstein, I. 1984b. *The Politics of the World-Economy: The States, the Movements and the Civilizations*. Cambridge: Cambridge University Press.

Wallerstein, I. 1998. *Utopistics: or Historical Choices of the Twenty-First Century*. New York: The New Press.

Wallerstein, I. 2003. *The Decline of American Power*. New York: New Press.

Wallerstein, I. 2010. Contradictions in the Latin American Left. *Commentary* No. 287, Aug. 15. URL: <http://www.iwallerstein.com/contradictions-in-the-latin-american-left/>.

Wallerstein, I. 2011 [1974]. *The Modern World-System*. Vol. 1. Berkeley: University of California Press.

World Bank 2012. *World Development Indicators* [online]. Washington, DC: World Bank. URL: databank.worldbank.org.

The Trajectory of the World System over the Last 5000 Years¹

Tony Harper

That history has a path, a trajectory through time, has been the focus of study by many prominent scholars including Marx (1977), Toynbee (1946), Jaspers (1965), Diakonoff (1999), and others. It is the intent of this paper to delineate this path as a trajectory of the world system through time. The term 'world system' is used here as initially defined by Wallerstein (1974) and then modified by Modelski (2003) to represent a single, global, world system. This paper addresses the problem of delineating the trajectory of the world system from a more quantitative and mathematical perspective than has previously been done.

Assuming that urban areas through time have a Pareto-like distribution, a mathematical model relating the magnitude of the total world system population, T , the ratio of largest to smallest urban area, a , and γ , a measure of the form of the distribution and also a proxy for the connectedness of the distribution, is constructed. The model is used to graphically represent all possible states of the world system and to plot the actual position of the world system through time. The actual trajectory has some notable large scale characteristics which are discussed. Other smaller scale trends are also noted.

A partial analysis of the constraints limiting this system is given and includes a consideration of the magnitude of changes in each of the model variables, the relationship between changes in the variables, a and C , of the distribution of urban areas, and a consideration of the relationship between γ and future values of that variable removed by one, two, or three centuries. The (apparent) scale-free nature of the model is also assessed. Finally, it is noted that the analysis of residuals of the linearized relationships between γ and both T and a yield cyclical changes with very long term periodicity.

Keywords: world system, math model, mixed strategy, Pareto-like distribution, search-pattern, theoretical space, urbanization.

Introduction²

The concept of a world system as first envisioned by Immanuel Wallerstein (1974) consists of a single or small group of core polities connected economically to a larger number of semi-peripheral polities which are in turn economically connected to an even larger number of peripheral polities. The core polities exploited the semi-peripheral and peripheral polities with respect to resource extraction, and were

¹ This paper is dedicated to two researchers, Sergei Chetverikov and Nikolai Kondratieff, who were pioneers in their respective fields of interest, whose intellect and creativity revealed previously unrecognized vistas of scientific endeavor, and whose careers were far too brief.

² This article was first published in the almanac *History & Mathematics: Processes and Models of Global Dynamics* (edited by Leonid Grinin, Peter Herrmann, Andrey Korotayev, and Arno Tausch). Volgograd: Uchitel Publishing House, 2010, pp. 13–63.

the center of production of this pyramidal organization, this production being driven by global capitalism. Wallerstein (2004) defines capitalism as continual or endless consumption with the implication that there will be an on-going flow of materials from peripheral and semi-peripheral polities to the core producers. It should be noted here that this arrangement of core to peripheral polity is analogous to a Pareto-like distribution in which high frequency entities are members of low magnitude classes, in this case low magnitude classes have low access to wealth, and low frequency entities have access to considerable wealth.

Since the inception of the world system concept other scholars have investigated the reality of the existence of the world system over the course of human history and have charted the historical paths of this system. Notable among these scholars are the late Andre Gunder Frank and William Thompson (2005), as well as George Modelski (2003). Also deserving note for their work on macro-models of world system behavior are Andrey Korotayev, Artemy Malkov, and Daria Khaltourina (2006a, 2006b; Korotayev and Khaltourina 2006). Their work, led by Korotayev, has taken a detailed look at both contemporary phenomena such as the global demographic transition we are currently rapidly approaching and the medieval and contemporary demographics of Africa and also the historical demographics of Medieval Egypt, always with the concept of the world system providing the fundamental direction for their work. Also of note is *Historical Dynamics* by Peter Turchin, a work that addresses the mathematical study of dynamic changes in agrarian polities, particularly secular cycles, and encompasses almost the entire time period under study in this paper.

Of the scholars mentioned, George Modelski (2003 and elsewhere) has taken the broadest view of world system evolution and history and has provided a graphical model of world system evolution as it is reflected by both changes in urbanization and changes in global population magnitude. His model, a graph of five thousand years of world system history, consists of phases of growth punctuated by phases of reorganization, with each phase lasting about one thousand years. While the phases of growth are characterized by a positive slope, the periods of reorganization are plateau-like with an average slope of zero (see Figs 1a and 1b). The form of these graphs themselves can be produced either by tracking the global population of the world system over time or by tracking the maximum size of urban area over time. In either case the same pattern is produced, that pattern being a set of two plateaus flanked by by periods of directed change and characterized by more or less continuously decreasing values of γ . For the purposes of this paper Modelski's data on world cities have been modified to produce Figs 1a and 1b. Specifically, the minimum total number of people inhabiting world cities for the Ancient, Classical, and Modern World systems by taking the number of world cities and multiplying that number by the average minimum number of people inhabiting those cities as defined by Modelski (2003). Fig. 1a is a punctuated linear plot of this data in which each segment represents each of the three historic periods. It can be seen that the first two segments of this graph have essentially the same shape even though the city size differs by an order of magnitude. The segment of this graph representing the Modern World system has the form of an exponential curve. In Fig. 1b the ordinate is logarithmic, and the sense of scale between the three ages gives a clearer picture of the relationship between the periods of growth and the plateaus, designated as periods of reorganization by Modelski. Of interest is the fact that the period of time known as

the so-called Dark Ages, *i.e.* the early Medieval Age, is associated with one of the phases of reorganization and such events as the ends of the Early, Middle, and Late Bronze Ages are associated with an earlier period of reorganization.

This paper proposes to investigate world system behavior over time, *i.e.* world system evolution, from a more quantitative and mathematical perspective. Included within this analysis will be the assessment of the degree of connectedness of the world system as it is reflected by urbanization. It is the intent here to map out the limits to or constraints on world system evolution, and the approach to this evolutionary analysis is not unlike that of Raup and Michelson (1965) in which they established physical constraints to the evolution of the molluscan coiled shell.

Fundamental to this approach is the construction of a model based on appropriate assumptions regarding the structure, function, and evolution of the world system. These assumptions must not only constrain and guide the form of the model constructed but also permit modifications to the model. Further, these assumptions will define the ability of the model to reflect reality, generality, and precision with respect to the function of the model. Recall that only two of the three model characteristics can be satisfied by any given model. The model constructed in this analysis has considerable generality having general applicability over time and is capable of making precise predictions, but does not reflect any particular reality, *i.e.* it is global in scope. In other words, the model will not represent the detailed historical course of the Roman Empire, or the demise of the Mayas, or the migrations of the Xiongnu. Rather, it will provide a specific context within which specialists can research the details of these and other civilizations. Finally, because of the nature of this model, it should be considered as a complimentary and supplementary tool to other types of historical research, not a replacement of standard historical scholarship; the domain of historical research is being expanded rather than shifting its locus.

Fig. 1a. The left-hand ordinate represents the number of world cities of the Ancient World, while the right-hand ordinate represents the number of world cities in the Classical World with the upward right-pointing arrow representing the increase in world cities of the Modern Age

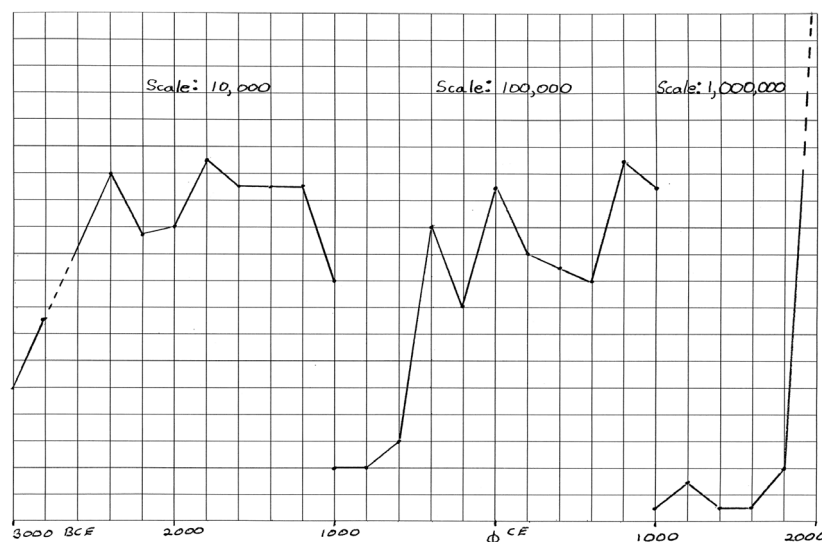
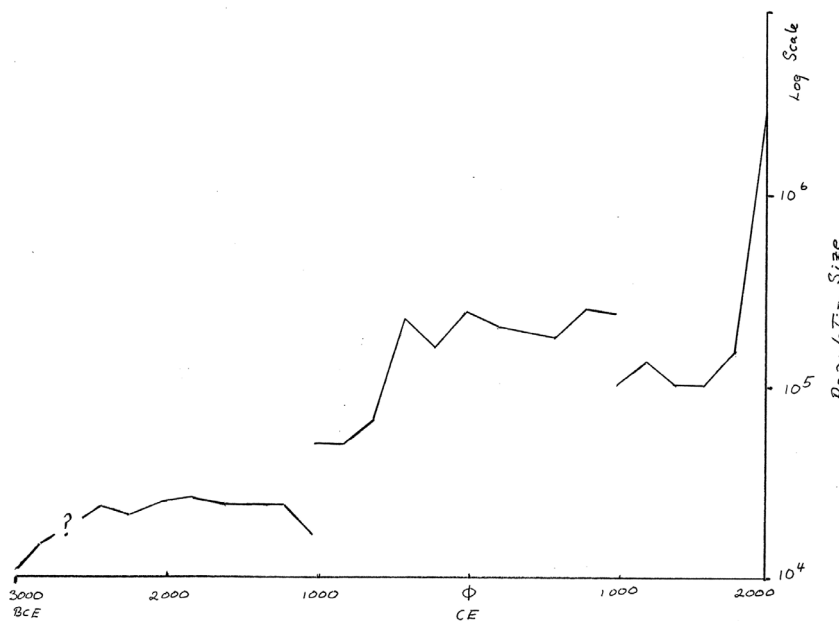


Fig. 1b. This graph is a semi-logarithmic representation of the data depicted in Fig. 1a. The scale of the minimum total populace living in world cities for each of the ages represented reveals a difference by an increase in an order of magnitude as one progresses through the five thousand year period to the present. Note that the question mark at 2600 BCE represents a lack of available data. The ordinate scale in the following successive orders of magnitude, 10^4 , 10^5 , and 10^6 , all representing population size



The Model

The intent of this model is to provide a tool by which parameters can be generated that characterize the state of the world system with respect to the degree of urbanization, the magnitude of the world system population, and the degree of connectedness of the world system. The model depends on three fundamental assumptions, first, that a world system does in fact exist and has existed over historical time and is global in extent, an assumption that is on (reasonably) solid ground, second, that the distribution of urban areas is Pareto-like, *i.e.* as described in the Introduction, that there are many urban areas that are small, while there are a few large urban areas, and, third, that the distribution is scale free. Explicitly, this distribution can be described by the following equation:

$$F = \alpha C^{-\gamma}, \quad (\text{Eq. 1})$$

where F represents frequency, α represents the maximum size of an urban area raised to the (positive) gamma power, C represents the class size of a given urban area as measured by its population, and γ is the exponent and is a measure of connectedness between urban areas as per the third assumption.

The total population of the world system, T , is then the sum of the world system urban population T_u , and that portion of the population existing rurally, T_r . An equation can be

derived (see Appendix for the relevant mathematics) which relates the ratio of largest to smallest urban size, a , the global population, T , and gamma, γ , the exponent of Eq. 1, which represents the degree of connectivity between urban areas. This equation is:

$$a^\gamma C_0^{\gamma-1} - a - (\gamma - 1)T / C_0 = 0 \quad (\text{Eq. 18 of the Appendix})$$

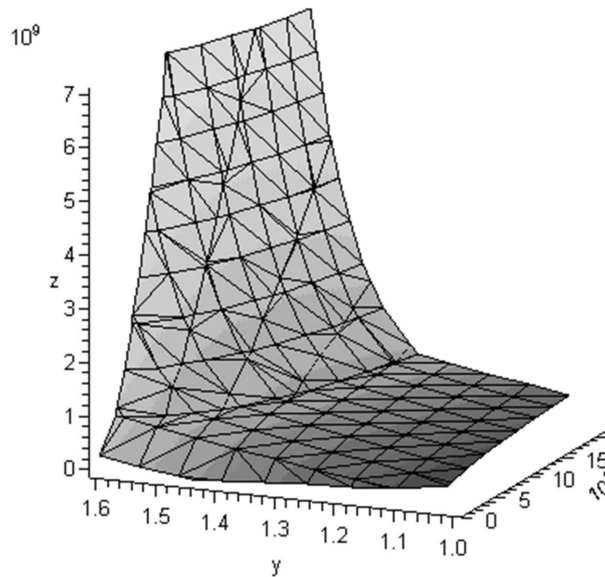
Note that the symbol, C_0 , represents the smallest urban size and is held constant in value at 100. It should also be apparent that Eq. 18 has a single dimension, population number, in this case of people. In other words, while a and the ratio, T/C_0 , are dimensionless, C_0 is not; it has the dimension noted above. Data for both T and the maximum urban area size over the last five thousand years (Chandler 1987; Modelski 2003; and the US Census Bureau), and then γ may be computed. Using the values of γ , T , and $a = C_{\max}/C_0$ acquired from the data set mentioned above, the state of the world system can then be plotted over the last five thousand years. However, Eq. 18 may also be used to generate a plot of all possible states of the world system, and this plot may then be used in comparison with the actual plot mentioned previously to determine what combinations of γ , T , and a are permissible and what are not. The question may then be posed: Why are certain sets of γ , T , and a functional while others are not? First, however, it will be important to generate the theoretical landscape.

The Theoretical Landscape of the World System

The theoretical surface generated by Eq. 18 (see Fig. 2) represents a surface in three-space with the axes $x = a$, $y = \gamma$, and $z = T/C_0$. However, the log transform of Eq. 18, $\ln[a^\gamma C_0^{\gamma-1} - a] - \ln[(\gamma - 1)T/C_0] = 0$, is to be used here so that the data having lower orders of magnitude could be displayed appropriately. For instance, the global population at 3000 BCE has been estimated at fourteen million, whereas one thousand years later it is twenty-seven million, and a thousand years further on, fifty million. In that same period of time the maximum urban size changes from forty thousand to eighty thousand in 2800 BCE and 2300 BCE and then to one hundred thousand by 1000 BCE. If, however, the span of the Common Era is considered, *i.e.* the last two thousand years, the global population changes from approximately one hundred and seventy million to over six billion and in the same period of time the maximum urban size increases from eight hundred thousand to over twenty million. Representing this last set of figures dwarfs the other data, *e.g.* by a factor of five hundred with respect to the maximum urban area of 3000 BCE. It should also be kept in mind that the surface in Figs 2, 3, 4, and 5 was determined by computing the zeros for Eq. 18. Also, when doing so the upper and lower bounds for a , γ , and T were determined empirically, specifically they are:

$$400 < a < 23,000, 1 < \gamma, 1.6, \text{ and } 14,000,000 < T < 6,000,000,000.$$

Fig. 2. This figure represents the surface of Eq. 18, *i.e.* the theoretical surface of the world system in three dimensions. The x-axis represents the magnitude of the variable, \underline{a} , the y-axis represents the magnitude of gamma, and the z-axis represents the magnitude of the variable, T



This surface exhibits some important characteristics. It is in general L-shaped with a slight downward crease toward low values of T and \underline{a} and higher values of γ . The upright portion of the L-shape is a surface that slopes steeply toward a sharp boundary with the horizontal portion of the L-shape.

The angle of this junction will become clear in the view of γ v. T in Fig. 4 which reveals a very clear L-shape. In Fig. 3, γ v. \underline{a} , the shape appears fan-like, and in Fig. 5, a head-on view of the surface a similar fan-like appearance is revealed. In the following section it will be clearly shown that, while this surface is considerable, the portion actually occupied by the world system over the last five thousand years is quite restricted.

The morphology of the world system three-dimensional landscape will now be considered in terms of three plane views, that of $x - y$, $z - y$, and $z - x$ as represented in Figs 3, 4, and 5. Viewed in the $x - y$ plane, *i.e.* a plane representing a plot of γ v. $\ln T$, the entire plane is occupied with two notable features, the aforementioned upright and horizontal portions of the L-shape and also an attenuation of the horizontal member as γ approaches one. In the $y - z$ or γ v. $\ln T/C_0$ plane the plot represents the distinctly L-shaped form with the previously mentioned attenuation. In the $\underline{a} - \ln T/C_0$ plane the plot reveals a distinct fan-shape with the attenuated portion of the graph extending toward the viewer.

Fig. 3. This figure represents a two-dimensional view of the theoretical landscape representing only the magnitudes of gamma and \underline{a} . The y-axis representing gamma is horizontal, and the axis representing \underline{a} is vertical. Note that as \underline{a} increases, gamma decreases

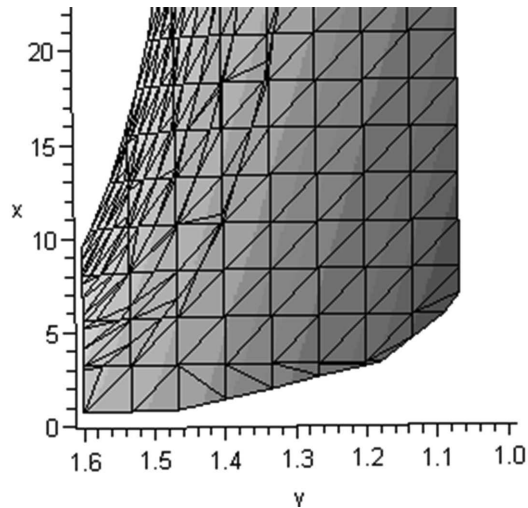
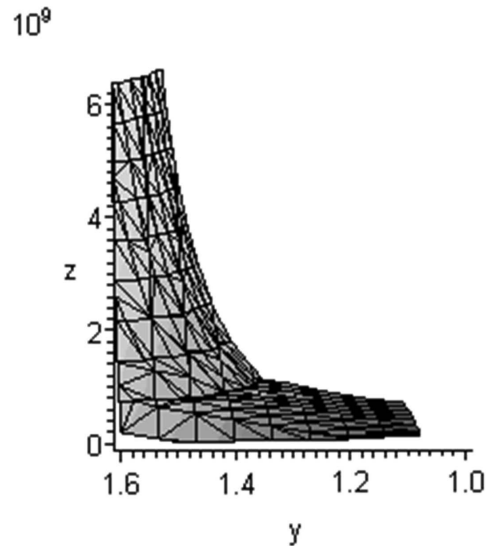


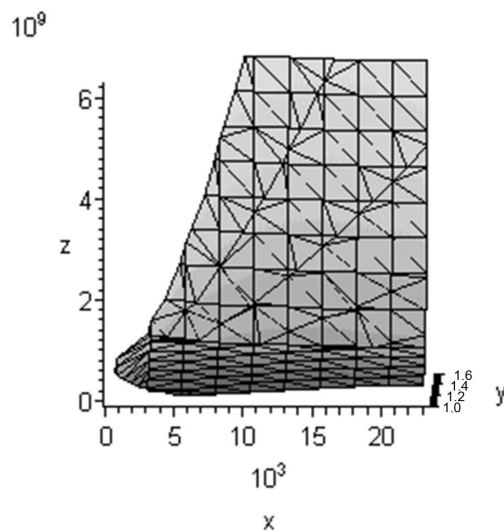
Fig. 4. The relationship between gamma (γ) and T (x), the world system population, is represented here. Note that the shape of this graph is that of an L and that the horizontal portion attenuates as gamma approaches 1. The general shape of this graph suggests that gamma and T are inversely proportional. The significance of this will be discussed in a later section



With regard to what \underline{a} , γ , and T represent in Eq. 18 the morphology of the theoretical surface suggests the following. As global population increases so does urbanization, at least as a broad trend predicted by the nature of this surface. However, in both the case of increase in \underline{a} or increase in T with respect to γ , γ will decrease. This can be confirmed by

considering Eq. 18 where the term $(\gamma - 1)T$ clearly implies an inverse relation between T and γ , and expressing T as a function of \underline{a} gives: $T = [C_0/(\gamma - 1)][\underline{a} - \underline{a}^\gamma C_0^{\gamma-1}]$, where as γ increases, T decreases, and since T and \underline{a} are directly proportional, then \underline{a} is inversely proportional to γ .

Fig. 5. The relationship between \underline{a} (x) and T (z) is represented in this figure. While this quadrant is not fully occupied by the surface, it should be apparent by Eq. 18 that \underline{a} and T are directly proportional



In summary, the three-dimensional plot of Eq. 18 represents an L-shaped surface with a gradually attenuated horizontal portion. Further, \underline{a} and T are directly proportional to each other but both are inversely proportional to γ . The significance of this will be addressed in the section ‘Discussion and implications of the world system trajectory’.

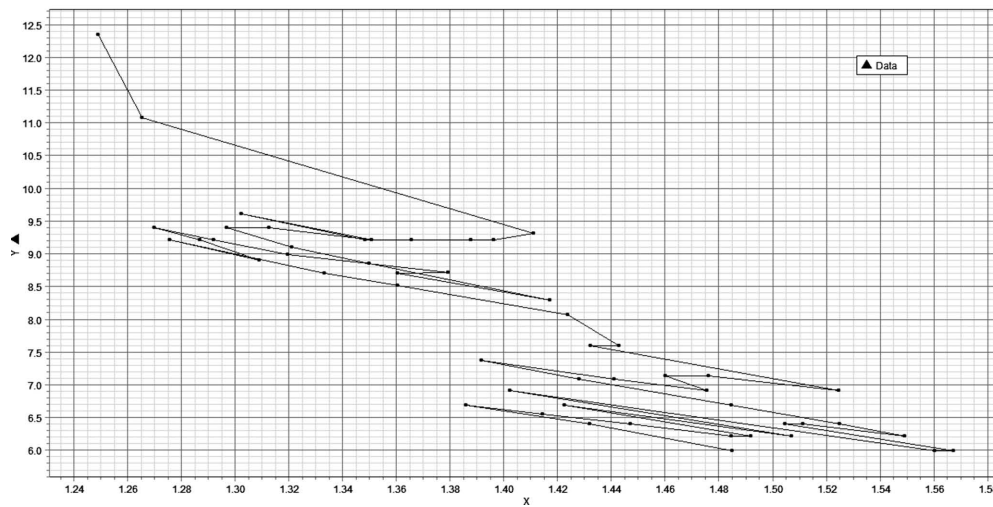
The World System Trajectory with Respect to γ , T , and \underline{a}

The previous section presented a view of the theoretical landscape of the world system as defined by the equation, $\underline{a}^\gamma C_0^{\gamma-1} - \underline{a} - (\gamma - 1)T/C_0 = 0$. In this section as defined by the data on γ , T , and \underline{a} listed in Table 1 to be found in the Appendix the actual trajectory of the world system will be described. The description will be given in pair-wise relationships, *i.e.* $\underline{a} = f(\gamma)$, $T = f(\gamma)$, and $T = f(\underline{a})$. In each relationship a graph of the independent and dependent variable will be presented and then discussed.

Fig. 6 represents the graph of $\underline{a} = f(\gamma)$, where each point represents the position of the world system, and each line connecting points represents the estimated distance that the system took in order to reach the next position in the sequence. This same procedure will be used to represent the remaining two relationships, $T = f(\gamma)$ and $T = f(\underline{a})$. Again, please note that the graph itself is not rectilinear but rather semi-logarithmic, with the abscissa being linear and the ordinate being logarithmic. This is also the case for $T = f(\gamma)$ but not for $T = f(\underline{a})$, as that is double logarithmic relationship. Also note that since time is

not represented by either axis but is implicit in the relationship, important temporal landmarks have been represented, *e.g.* 3000 BCE, the beginning of the plot, 900 BCE, *et al.*

Fig. 6. The trajectory of the world system with respect to gamma, x-axis, and $\ln a$, y-axis, exhibits an inverse relationship. There are two broad sub-trends to note here, that there are two periods of oscillation termed search patterns and periods of continuous change in which gamma shows continuous decrease, one extending from the first search pattern to the second, from 300 BCE to 300 CE and from 1800 CE to 2000 CE



This graph has a number of trends and characteristics which will be noted in turn. The first of these is that there is a broad inverse relationship between gamma and $C_{\max}/C_0 (= a)$. This is predicted by the equation itself and represented in the graphs of the previous section and suggests that any increase in a implies a decrease in gamma, the implications of which will be discussed in the following section. It is comforting however to have empirical data suggest the same trend. However, on a smaller scale there are a number of circumstances where this relationship does not hold.

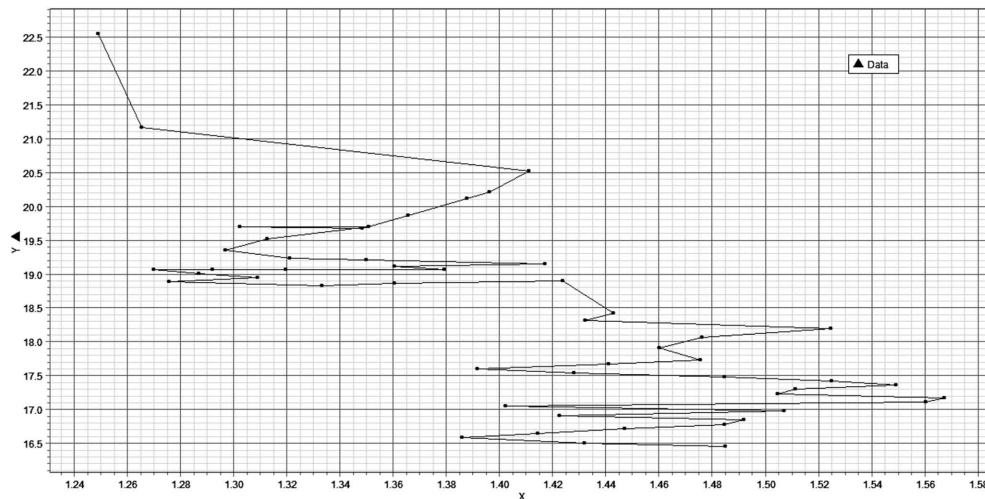
Within this broad inverse trend between γ and a there are three sub-trends of significance. The first of these is that the graph is not continuous, but is discontinuous with two periods of oscillation between increasing a and decreasing gamma and decreasing a and increasing γ . These oscillatory periods represent considerable periods of time amounting to approximately one thousand years in each instance. Within these periods of oscillation there are segments in which there is no change in a but there is an increase in γ , two in the first oscillatory period bounded by 2500 BCE and 300 BCE, and one terminating the second period and beginning at 1300 CE. The existence of these three anomalous segments suggests that the data represented in Fig. 6 are not simply artifacts of $a^\gamma C_0^{\gamma-1} - a - (\gamma - 1)T/C_0 = 0$. These segments are real and important to the understanding of the world system trajectory.

Punctuating these two periods of oscillation are two (and possibly three) periods of continuous change. The equivocalness of the previous sentence is in all probability

an artifact of the available data, however, as graphically represented there are only two pronounced periods of continuous change, one extending from 300 BCE to 300 CE and the current one that is now ending but extends from 1800 CE to the present. A third may exist from 3000 BCE to 2500 BCE, and if so, these three periods of continuous change and two periods of oscillation broadly, and only broadly, conform to Modelski's model of ages of growth interspersed between ages of reorganization. Even so, each period of continuous change represents an increase in a with a concomitant decrease in γ .

A similar general pattern to that of $a = f(\gamma)$ of a period of oscillation punctuated with a period of (relatively) continuous increase is evident when considering the graph of $\ln T = f(\gamma)$ (see Fig. 7). This pattern is also in overall form an inverse one, *i.e.* as T increases, γ decreases and *vice versa*. Over time then γ decreases from a value of just less than 1.6 to one just under 1.25, and during this time, five thousand years, T increases by three orders of magnitude, a condition that may change to four orders of magnitude by the end of this century.

Fig. 7. The trajectory of the world system with respect to gamma, x-axis, and $\ln T$, y-axis, is represented here. It should be noted that while the same general trend and sub-trends are represented here as in Fig. 6, during the search pattern periods there is a significant horizontal change in gamma with little or no change in T . This would seem to imply that these search-pattern episodes involve change in connectivity with respect to the degree of urbanization but in the absence of marked change in T , *i.e.* it is as if the world system is being repackaged without a change in the over-all size of the system



Within this broad inverse trend of increasing T with decreasing γ there are two oscillatory periods, not unlike search patterns, and similar in general form and identical in temporal limits to those noted in $a = f(\gamma)$, in which there is considerable change in γ with little change in T . Also, the change in γ with respect to T in the graph of $T = f(\gamma)$ alternated between positive and negative slope, whereas the change in γ with respect to a was always negative in the graph of $a = f(\gamma)$. Each of the search-pattern like structures in Fig. 7 is

separated by a period of nearly continuous change as they are in $\ln a = f(\gamma)$ and of course with the similar temporal limits. The first search pattern extending from 3000 BCE to 1000 BCE includes a period of change in T without any change in γ , so it may be more reasonable to recognize two search-patterns during this time, an older one extending from 3000 BCE to 2000 BCE and a briefer one from 1500 BCE to 1000 BCE. Both of these periods of continuous change represent a change in γ of about $-.5$. Several so-called Dark Ages are found embedded within these search-pattern periods, the two most notable being the collapse of the Late Bronze Age and the Dark Age (= Age of Reorganization) occurring after the collapse of the Roman Empire.

The graph of $\ln T = f(\ln a)$ (Fig. 8) differs in general pattern from that of the two previous graphs in that a and T are directly proportional to each other. On a log-log plot the pattern exhibits an essentially linear trend from 3000 BCE with T being approximately 14 million, and a being approximately four hundred to 2000 CE with T being approximately 6.2 billion and a being approximately 23 thousand. However, as in the two previous graphs there are clearly two search-pattern periods, identical in temporal extent to those represented in the two previous graphs, each one associated with the plateaus of the Modelski graph (see Fig. 1). As previously noted in the description of the relationship, $\ln T = f(\gamma)$, it is these search-pattern periods that are also associated with periods of so-called societal collapse. Also characteristic of each search pattern is considerable change in a with relatively little change in $\ln T$. There are also two broad periods of continuous change, one extending from 900 BCE to 300 BCE and the second from 1000 CE to the present. Both periods of increase are punctuated by a century of rapid change with essentially no change in $\ln T$. Interestingly, the second such punctuation is actually associated with a slight decrease in $\ln T$.

Fig. 8a. The relationship between $\ln a$, x-axis, and $\ln T$, y-axis, represented here is clearly linear with a positive slope, however, the antilog transform is a power function with an exponent less than one as can be seen in Fig. 8b

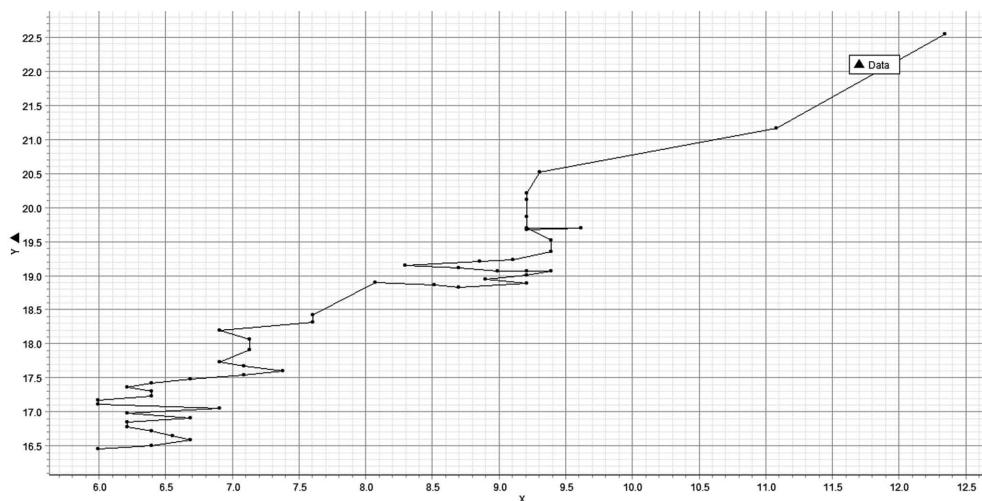
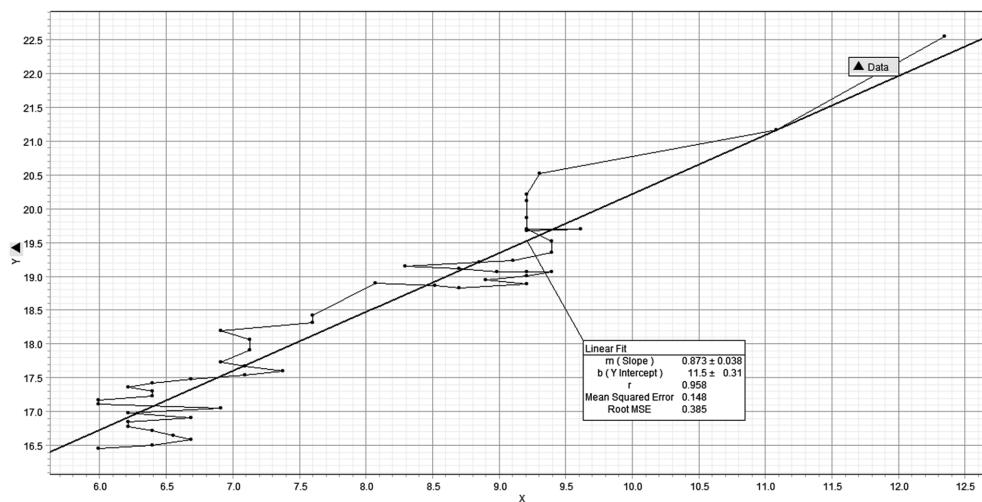


Fig. 8b. This is simply the plot represented in Figure 8a fitted with a regression line. As previously noted the antilog transform gives the power function: $T = 11.5C^{0.873}$ (where C is the antilog transform of the x-axis variable, $\ln C$) which implies that the fraction of the population living in urban settings will increase with increasing T



It should be noted that the periods of oscillation identified in Figs 6, 7, and 8 of this paper share significant similarities with Figs 7 and 10 of Korotayev and Grinin (2006). Both sets of graphs are double-logarithmic³ and show oscillatory behavior of the world system over approximately the same period of time, 200 BCE to 1500 CE. However, the graphs in this paper also represent an earlier set of oscillations approximately over the period, 2000 BCE to 1000 BCE. In Korotayev and Grinin's paper the axes are either the logarithm of megacity size or megacity index (x-axis) and the logarithm of developing and mature state area (y-axis). While state area is not represented in Figs 6, 7, and 8, the megacity size is and it is compared either to γ or to the logarithm of world population. The significance of this similarity is that both sets of graphs represent different aspects of the same underlying process; according to Grinin and Korotayev, this is a series of phase transitions between attraction basins corresponding to qualitatively different levels of the world system's sociopolitical and technocultural complexity.

Discussion and Implications of the World System Trajectory

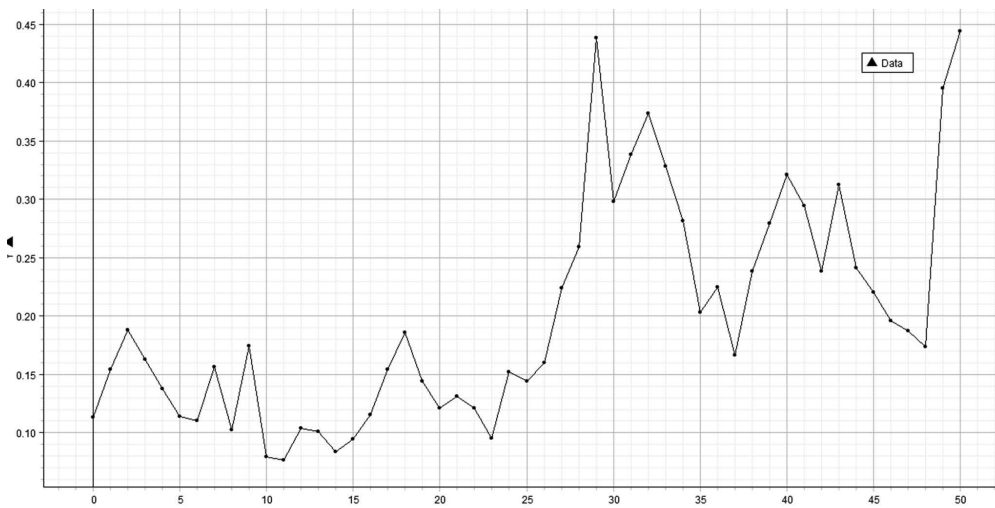
The previous section involved a detailed description of the world system trajectory as it moved through the theoretical three-dimensional space defined by the variables, T, \underline{a} , and γ . This section will discuss the significance of these trends, offer some explanation of their mechanics, and indulge in some predictions.

From the description of the data it is clear that at least with respect to the three variables, T, \underline{a} , and γ , and their relationship defined by: $a^{\gamma}C_0^{\gamma-1} - a - (\gamma - 1)T/C_0 = 0$, that both T and \underline{a} and γ are inversely proportional, while T and \underline{a} are directly proportional. That

³ Note that the exponent, γ , is a logarithm.

this is logically consistent is not difficult to show in that if $T \propto 1/\gamma$ and $\underline{a} \propto 1/\gamma$, then $T \propto \underline{a}$. However, why should this be in reality? With regard to the function, $F = \alpha C - \gamma$, as γ increases F decreases, and if γ represents a measure of connectivity, then it should be expected that as connectivity increases in the world system both T and \underline{a} should increase, consequently this will only occur as γ decreases. Further, the direct relationship between T and \underline{a} is intuitively easy to grasp, since urbanization seems to be directly dependent on global population, and, empirically, as T approaches ten billion a larger and larger proportion of T becomes urbanized. This can be shown by Eq. 23 (see Mathematical Appendix for the derivation): $T_u/T_r = (a^{1-\gamma} - 1)/(1 - C_0^{\gamma-1})$ (Eq. 23), and by its graph (Fig. 9).

Fig. 9. The ratio of T_u/T_r , y-axis, with respect to time shows that as \underline{a} , x-axis, and gamma change over the 5000 year period represented by the data the magnitude of the numerator, T_u , increases as a greater rate than the denominator, implying that the degree of urbanization has increased over time



Also associated with these broad trends is the fact that the world system trajectory occupies very little space within the bounds of the three variables. What is it then that constrains this trajectory? Clearly, the relationship defined by Eq. 18 may offer some insight, part of which is explained in the following paragraphs, but, for instance, no period of continuous increase spans rather than more than four hundred years, and no period of change in γ occurs over a range greater than .5. Why is this? These questions are posed here so that the remaining paragraphs in this section can be considered within the context of imposed but as yet identified constraints on the system.

As was previously noted, within these broad trends there are two sets of patterns, each in all probability dependent on the other. I refer to the two periods of continuous increase punctuated by two periods of what has been labeled as search-pattern behavior on the part of the world system. It is these aspects of world system behavior that will be (partially) analysed here. Also as previously noted the search-pattern periods have

embedded within them what Modelski refers to as ages of reorganization. How are these ages of reorganization related to the disjunct search patterns exhibited by the world system trajectory?

These questions will be addressed by assessing each of the following in turn: the magnitude of change of each of the variables with respect to Eq. 18, the rate of change of gamma with respect to gamma itself, the relationship between gamma and preceding gammas, specifically γ_{n+1} , γ_{n+2} , and γ_{n+3} , the scale free nature of the trajectory, regressions of γ with respect to both T and a , and sine series fits of the residuals of $\gamma_{\text{observed}} - \gamma_{\text{expected}}$.

It was previously emphasized that while the function represented by Eq. 18 provides a surface that characterizes all possible states of the world system, the actual trajectory of the world system occupies a very limited portion of this surface. Is this restricted domain a consequence of the magnitude of cost of changing a given variable of the function represented by Eq. 18? After all, there appear to be periods of change in the world system trajectory in which either γ changes with little change in the other two or a changes under the same condition, or T does likewise. The magnitude of change of each of the variables can be represented by the partial derivative of the function with respect to a given variable. What follows is a brief analysis of these partial derivatives over time.

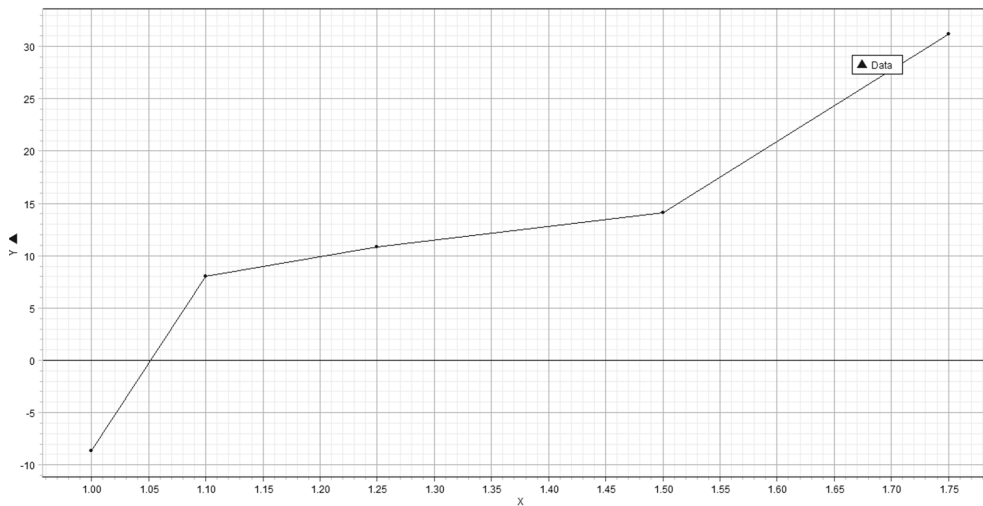
The evaluation of Eq. 18, $f(\gamma, a, T) = a^\gamma C_0^{\gamma-1} - a - (\gamma - 1)T / C_0 = 0$, with respect to each of the partial derivatives for each of the variables is as follows: $\partial f / \partial \gamma = a^\gamma C_0^{\gamma-1} (\ln a + \ln C_0) - T / C_0$, $\partial f / \partial a = \gamma a^{\gamma-1} C_0^{\gamma-1} - 1$, and $\partial f / \partial T = -(\gamma - 1) / C_0$. It can be shown that the magnitude of $\partial f / \partial \gamma > \partial f / \partial a > \partial f / \partial T$. This can be demonstrated as follows: Since $a^\gamma C_0^{\gamma-1} > a^{\gamma-1} C_0^{\gamma-1}$, where $a > 100$, $C_0 = 100$, and $\gamma > 1$, and since the sum, $\ln a + \ln C_0$, is greater than γ , and noting that $a^\gamma C_0^{\gamma-1} - a = (\gamma - 1)T / C_0$, and logically that $(\gamma - 1)^{-1} [a^\gamma C_0^{\gamma-1} - a] = T / C_0$, then $a^\gamma C_0^{\gamma-1} (\ln a + \ln C_0) > (\gamma - 1)^{-1} [a^\gamma C_0^{\gamma-1} - a]$.⁴ Since $a^\gamma C_0^{\gamma-1} (\ln a + \ln C_0) \gg T / C_0$, and since $1 \ll \gamma a^{\gamma-1} C_0^{\gamma-1}$, then $\partial f / \partial \gamma > \partial f / \partial a$, and since $\partial f / \partial T < 0$, then $\partial f / \partial \gamma > \partial f / \partial a > \partial f / \partial T$.

Assuming the logic the previous paragraph holds, it should be expected then that change in γ will have the largest effect on the trajectory of the world system, while a change in T will have the least effect. This implies that the distribution and connectivity of urban areas of the world system will have a greater impact on the system than will a change in the magnitude of the total population of the world system. This can be seen graphically in Fig. 10 which represents the values of each of the partial derivatives computed for the state of the system per century over the 5000 year period for which there are data on the state of the world system.

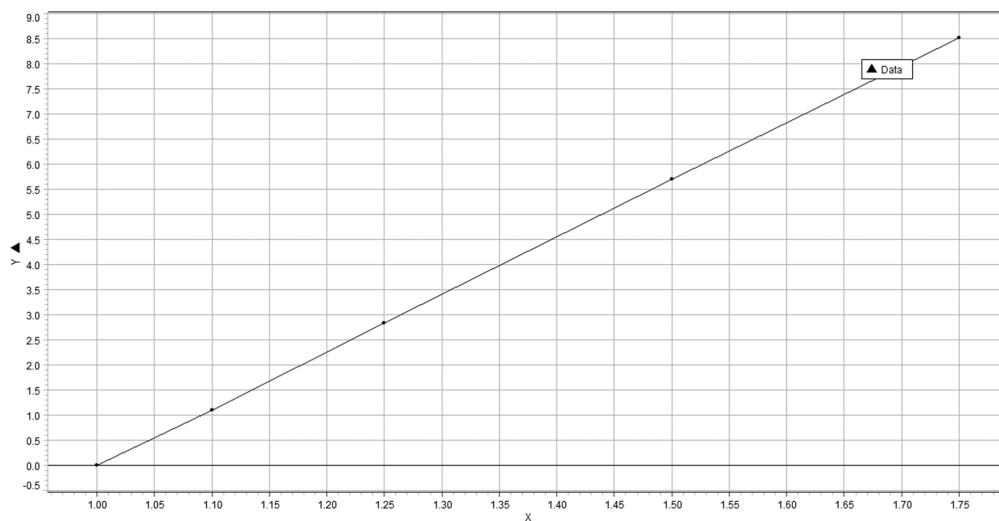
⁴ Empirically, $(\gamma - 1)^{-1} \sim 5$ or less, while $\ln a + \ln C_0 \sim 10$ or greater.

Fig. 10. This set of figures shows that the trajectory of the world system is most greatly affected by changes in gamma with significantly less effect by \underline{a} . Reading from top to bottom the graphs, a, b, c, and d are respectively $\partial f/\partial \gamma$ varying γ and holding all else constant, $\partial f/\partial a$ under the preceding conditions, $\partial f/\partial \gamma$ varying a from 400 to 24,000 and holding all else constant, and $\partial f/\partial a$ under the preceding conditions. Note that changes in T , which are not represented, have the least effect, since they are negative

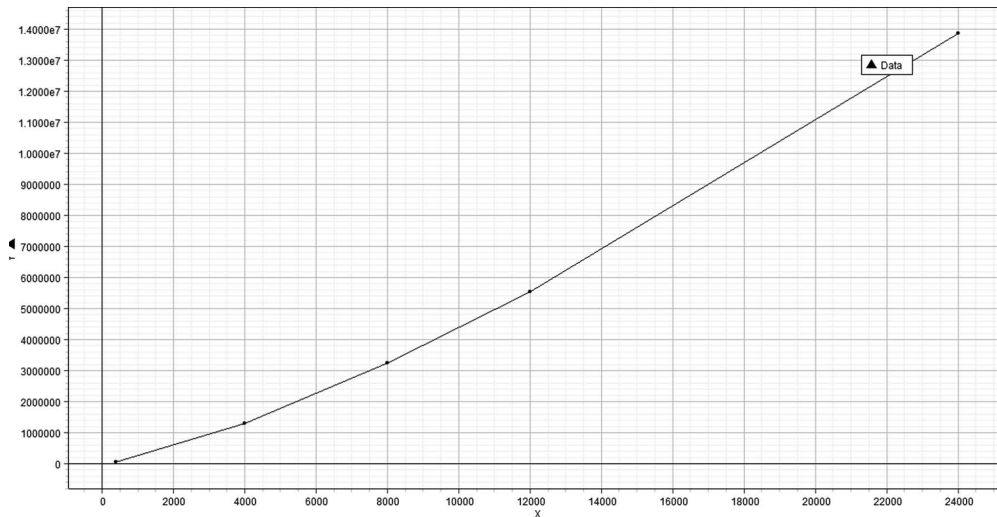
a. Note that the y-axis has been adjusted to a natural log scale so that the magnitude of change represented in this graph is greater than the linearized scale in graph b



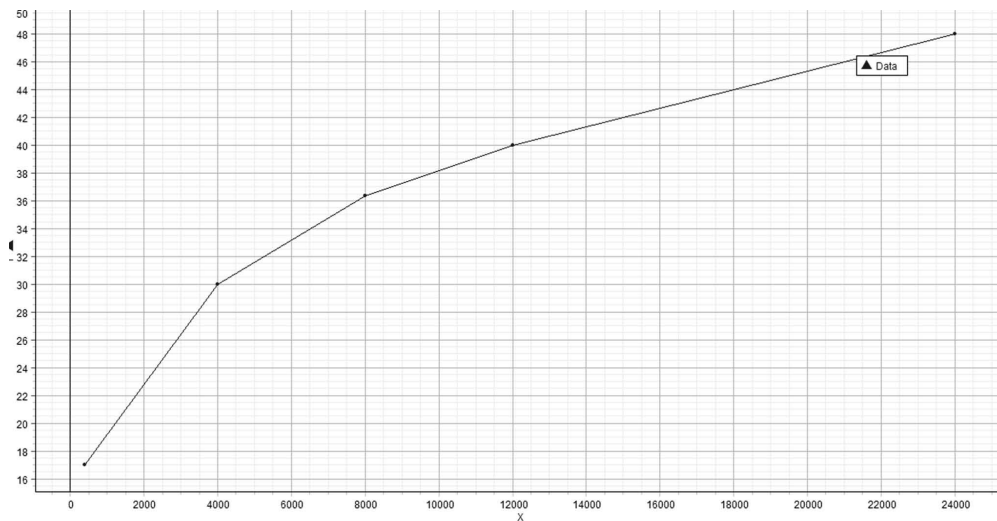
b.



c. In the graph above the y-axis is scaled from 10^6 to 10^7 , while the scale in the graph below is linear



d.



Each of the points on the world system trajectory represents a specific state of the world system as defined by $F = \alpha C^{-\gamma}$. If we consider a logarithmic plot of $F = \alpha C^{-\gamma}$, *i.e.* $\ln F = \ln \alpha - \gamma \ln C$, the plot represents a triangular space on logarithmic axes bounded by the line represented by the previous equation and by the segment of the ordinate from $\ln 1$ to $\gamma \ln C_{\max}$ and the segment of the abscissa from $\ln 1$ to $\ln C_{\max}$. Note that as long as $\gamma > 1$ the bounding ordinate segment will be greater than the bounding segment of the abscissa. There are three ways to change the area of this triangle: 1. To change $\ln \alpha$ ($=\gamma \ln C_{\max}$). 2. To change $\ln C_{\max}$. (Any change in γ will automatically bring about a change in the magnitude of the bounding segment of the abscissa.) 3. To change both.

As the world system moves along its trajectory, what is the strategy used? Which variable is changed, or is the mixed strategy employed, and, if so, what is the mixed strategy?

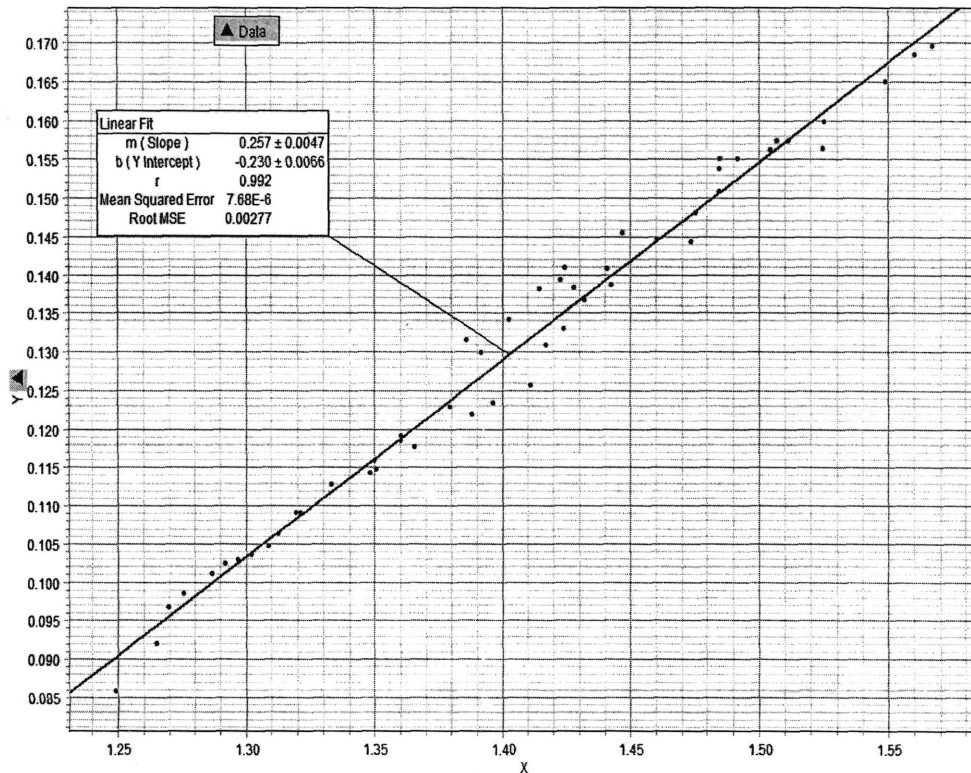
It will be instructive first to note the state of the world system as reflected by the relationship between α , C_{\max} , and γ at regular points over the five thousand year time span being investigated. In this instance one thousand year intervals have been chosen to reflect the broad trend of world system change (see Fig. 12). The absolute value of the slope of each line is the value of γ as a consequence of the magnitude of both α and C_{\max} for that specific century. With the exception of the centuries 3000 BCE and 2000 BCE all sets of α , C_{\max} , and γ are unique. This of course implies that the position of the world system is unique and has evolved, *i.e.* changed, over time. Also, and not unexpectedly, as the world system progresses over the last five thousand years, there is an increase in the position of both intercepts, *i.e.* as both intercepts depend on the magnitude of the maximum urban area of a given point in time, C_{\max} , both intercepts increase as a consequence of the increased degree of urbanization over recorded history. However, while the degree of urbanization of the world system has increased over time, it has done so far from the point(s) of equilibria of that system, and in fact the world system is a non-equilibrium system.

If Eq. 18 is modified by multiplying through by C_0 , then this equation becomes, $C_{\max}^{\gamma} - C_{\max} - (\gamma - 1)T = 0$ (Eq. 24), and if this modified equation is then partially differentiated with respect to γ the partial derivative is: $\partial f / \partial \gamma = C_{\max}^{\gamma} \ln C_{\max} - T$. Further, by setting this partial derivative equal to zero and then solving for γ the following equation is produced: $\gamma = [\ln C_{\max}] - 1 \ln [T / \ln C_{\max}]$ (Eq. 25). This last equation gives the equilibrium value of γ , *i.e.* γ_{eq} , and can then be used to compute γ_{eq} for each value of C_{\max} and T per century over the period of time for which the world system is being analysed in this paper. Interestingly, when γ_{eq} is computed in this way, the values of γ_{eq} do not match γ_0 , the observed values for gamma, but instead vary in a consistent and linear way from the observed value of gamma. The consistency of this difference is shown by regressing $|\gamma_0 - \gamma_{\text{eq}}|$, $\Delta \gamma$, against γ_0 , which gives: $\Delta \gamma = .257\gamma_0 - .230$ (Eq. 26.) and has an r-value of .992, which implies an exceptional fit. This relationship can be seen graphically in Fig. 11. This then is one more line of evidence that suggests that the trajectory of the world system is constrained.

Unsurprisingly, if γ_{eq} is used to compute either the equilibrium value of C_{\max} or T , while using the observed value of the other variable, the magnitude of either varies consistently from the observed values of either. Specifically, when T_0 , the observed value of the world system population, is compared with T_{eq} , given that T_{eq} can be computed by: $T_{\text{eq}} = [C_{\max}^{\gamma} - C_{\max}] / (\gamma_{\text{eq}} - 1)$, a linear regression of T_{eq} v. T_0 is produced, $T_{\text{eq}} = .3378 T_0 - 6246618.955$, and when the two sets of data, T_0 and T_{eq} , are compared using a 2-sample t-test the p-value is .1175, clearly indicating a difference in the two lists of data, T_0 v. T_{eq} . In a similar fashion using the observed value for T and the appropriate value for γ_{eq} and solving Eq. 24 for C_{\max} yields equilibrium values larger than the observed values, and these values vary systematically with observed values of C_{\max} . This is a consequence of the reduced value of γ_{eq} . The regression of $C_{\max(\text{o})}$ against $C_{\max(\text{eq})}$ yields: $C_{\max(\text{eq})} = 25.3 C_{\max(\text{o})} - 1.02\text{E}+7$ with an r value of .993, again an exceptionally close fit. The computed values of C_{\max} and T based on the equilibrium values of γ computed from Eq. 25 are

significantly different than the values actually exhibited by the world system and clearly imply that the world system is a non-equilibrium system.

Fig. 11.



Notes: The graph above represents the relationship between γ_0 on the x-axis and $\Delta \gamma$ on the y-axis. As can be seen by the linearity of the data and the value of $r = .992$, the data not only exhibit a linear trend but do so with very little dispersion about the line: $\Delta \gamma = .257\gamma_0 - .230$. This implies significant constraint on the trajectory of the world system.

Since there is a consistent difference between observed and expected, *i.e.* equilibrium, values of γ and also between computed values of both C_{\max} and T , then, unquestionably, the world system is a non-equilibrium system, and it is appropriate to ask what factors are contributing to this consistent difference between observed values and predicted equilibrium values. Ball (2008) suggests that non-equilibrium systems are maintained away from equilibria by competing processes, and perhaps an extension of the current research would be to identify potential opposing processes and then assess their significance with respect to changes in gamma. For instance, the relationship between urbanization and deurbanization or the relationship between technological innovation and carrying capacity might be worthy first choices, as would the cyclical nature of societal processes as demonstrated by Turchin and Nefedov (2009), although the significance

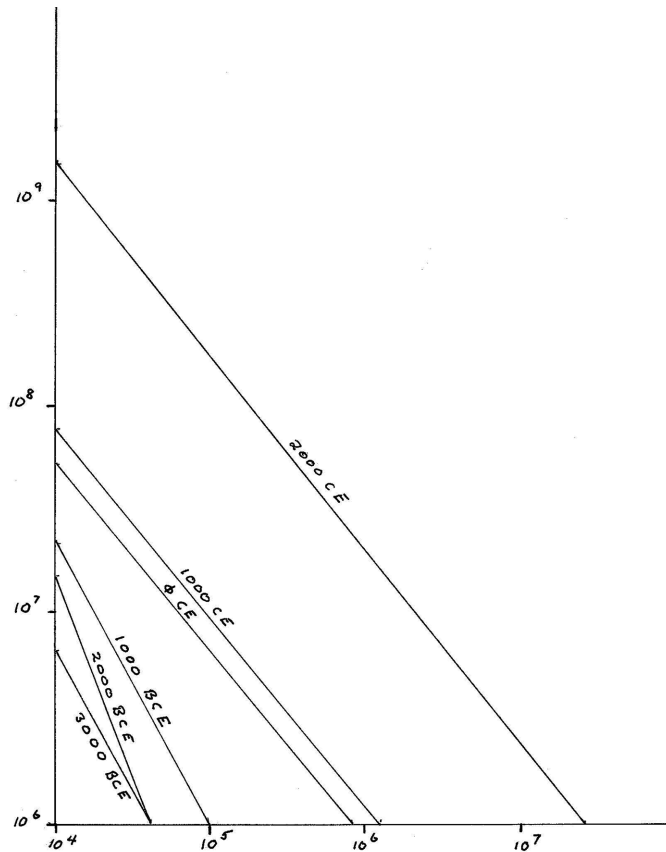
of phase transitions that the world system has experienced in the past should also be considered in that whatever caused the phase transitions suggests an imbalance between those competing processes and may in fact make those processes more identifiable.

Even though a predictable difference exists between γ_o and γ_{eq} over the course of the last 5000 years Eq. 26 suggests that as γ_o decreases so does $\Delta\gamma$, and since historically γ_o has decreased over the last 5000 years so also has done $\Delta\gamma$. At what point will γ_o and γ_{eq} converge? This is easy enough to answer by setting Eq. 26 equal to zero. There is a convergence point between expected and observed γ when $\gamma_o = \gamma_{eq} = .8949$, and this convergence point is beyond the extinction point of $\gamma_o = 1$, *i.e.* when $\gamma_o = 1$, then Eq. 24 becomes: $C_{max}^1 - C_{max} - (1 - 1)T = 0$, and this obviously holds for any values of C_{max} and T . In other words, at no time between $1 < \gamma_o \leq 1.6$ will the world system ever be at equilibrium, other than in the face of complete collapse. Also, as γ_o decreases the magnitude of the maximum urban area increases.

It will be instructive first to note the state of the world system as reflected by the relationship between α , C_{max} , and γ at regular points over the five thousand year time span being investigated. In this instance one thousand year intervals have been chosen to reflect the broad trend of world system change (see Fig. 12). The absolute value of the slope of each line is the value of γ as a consequence of the magnitude of both α and C_{max} for that specific century. With the exception of the centuries 3000 BCE and 2000 BCE all sets of α , C_{max} , and γ are unique. This of course implies that the position of the world system is unique and has evolved, *i.e.* changed, over time. Also, and not unexpectedly, as the world system progresses over the last five thousand years, there is an increase in the position of both intercepts, *i.e.* as both intercepts depend on the magnitude of the maximum urban area of a given point in time, C_{max} , both intercepts increase as a consequence of the increased degree of urbanization over recorded history.

Even though the degree of urbanization has increased over time it has not done so in an even or constant rate. As mentioned previously the transition from 3000 BCE to 2000 BCE involved no net change in the magnitude of C_{max} , and observation of all the time-incremented positions of the world system as represented in Fig. 12 clearly show the influence, the uneven influence, of urbanization as represented by C_{max} on the position of the world system has caused the progress(ion) of the world system itself to be uneven. First, γ is not constant over time but shows a broadly decreasing trend; this implies a greater proportional change in C_{max} than in α . Over the last two thousand years there has been relatively little overall net change in γ , *e.g.* at 1 CE $\gamma = 1.3090$, at 1000 CE $\gamma = 1.2969$, and at 2000 CE $\gamma = 1.2460$. This also appears to be true of the period from 3000 BCE to 1000 BCE where at 3000 BCE $\gamma = 1.4851$, at 2000 BCE $\gamma = 1.5640$, and at 1000 BCE $\gamma = 1.4756$. The greatest change in γ occurred between 1000 BCE and 1 CE, *i.e.* from $\gamma = 1.4756$ to $\gamma = 1.3090$, a period of time encompassing Karl Jaspers' Axial Age.

Fig. 12. The relationship, $\gamma = \ln a / \ln C_{\max}$, represented at 1000 year intervals showing that the state of the world system changes so that the slope of the line increases, *i.e.* becomes less negative. This is due to changes in both $\ln a$ and $\ln C_{\max}$.



The actual position of the world system line is also not evenly spaced through time with the greatest difference represented by the transition from 1000 CE to 2000 CE. Unquestionably there are two distinctly different states of the world system represented on this graph and one period of transition. The first two thousand years are represented by a median value of $\gamma = 1.5070$ and the last 2000 years by a median value of $\gamma = 1.2840$. The middle one thousand years, the period of transition, has a median value of $\gamma = 1.3923$. It should be noted that the differences between the three medians is .1147 between the median of the first two thousand years and the middle one thousand years and is .1083 between the median of the middle one thousand years and the median of the final two thousand years. Quite obviously these differences are relatively close in magnitude suggesting changes of relative magnitude in the world system position.

In assessing the strategy used by the world system with respect to state space as defined previously several portions of the trajectory will be considered. These regions include portions of each search pattern, including sets of three data points increase in involving

a decrease in γ and then an increase, a set that involves continuous increase in γ , another that involves continuous decrease in γ , and a set that involves a continuous increase from the first search pattern to the second.

Figs 13 and 14 represent increases in γ , while Figs 15 and 16 represent decreasing values of γ . In the case of Figs 13 and 14 the initial segments, from 3000 BCE to 2900 BCE and from 700 BCE to 600 BCE respectively, the change involved a decrease in $\gamma \ln C_{\max}$ and an increase in $\ln C_{\max}$, whereas in Figs 15 and 16, changes from 2300 BCE to 2200 BCE and 2100 BCE to 2000 BCE the reverse occurred; $\gamma \ln C_{\max}$ increased, and $\ln C_{\max}$ decreased. In other words, when γ either increases or decreases both intercepts change but in the opposite direction, *i.e.* if γ decreases then $\gamma \ln C_{\max}$ decreases and $\ln C_{\max}$ increases, while the reverse would be true if γ were to increase. Interestingly, the value of the partial derivative of $\ln F$ with respect to α decreases with increasing α , while the value of the partial derivative of $\ln F$ with respect to C increases with increasing C . So, increasing $\ln C_{\max}$ while decreasing $\gamma \ln C_{\max}$ causes an increase in $\partial \ln F / \partial \alpha$ and a decrease in $\partial \ln F / \partial C$ (see Figs 17 and 18).

Fig. 13. This figure represents the change in the world system position as defined by γ , $\ln \alpha$, and C_{\max} from 700 BCE to 600 BCE. Note that γ increases as a function of both a decrease in $\ln \alpha$ and an increase in C_{\max} .

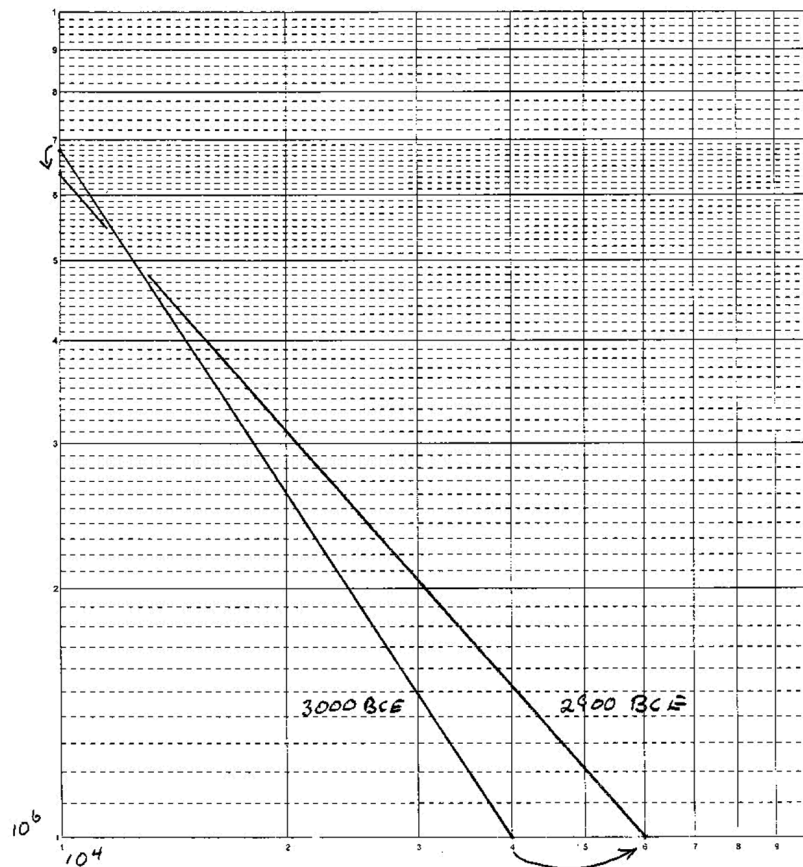


Fig. 14. Here, as opposed to Fig. 13, the change is reversed, and γ decreases as a function of increasing $\ln a$ and decreasing $\ln C_{\max}$. The period of time represented is the one hundred years intervening 2300 BCE and 2200 BCE

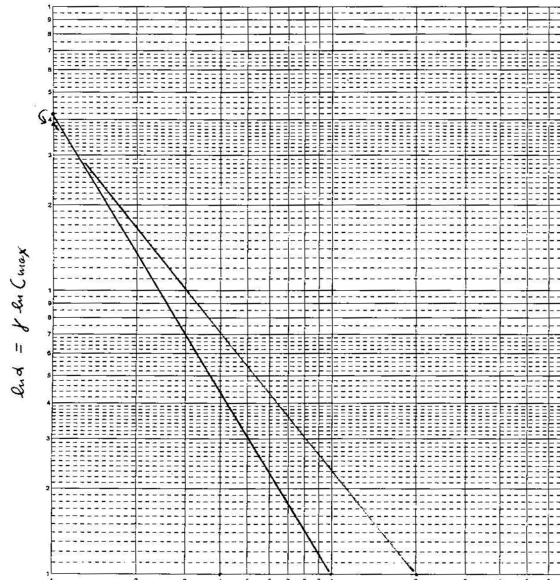


Fig.15. This figure represents the effects of the decrease in $\ln C_{\max}$ as an attendant change to the increase of the absolute value of γ , which causes an increase in $\ln a$ during the century from 2300 BCE to 2200 BCE

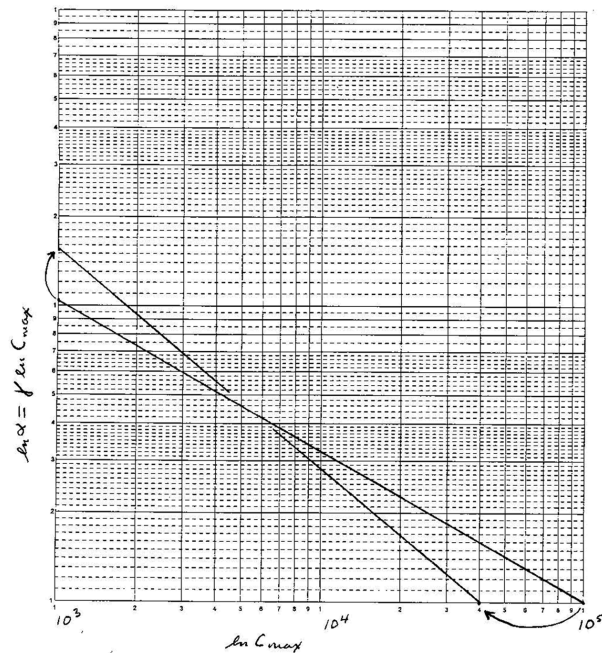
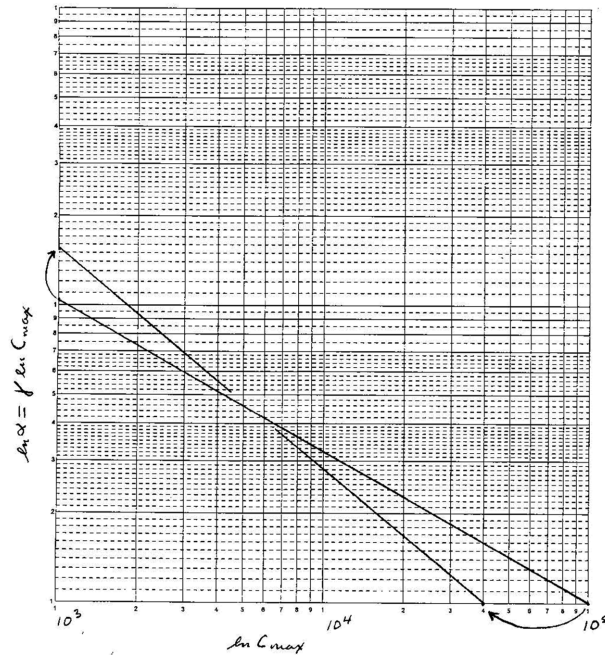


Fig. 16. As in Fig. 15 the absolute value of γ increases which causes similar changes in the state of the world system, *i.e.* a reduction in $\ln C_{\max}$ which causes an increase in $\ln \alpha$, this time during the century from 2100 BCE to 2000 BCE



In the case of continuous change with respect to the world system trajectory and considering the two sequences, 400 BCE to 100 BCE and 700 CE to 1000 CE, both representing continuous decreases in the magnitude of γ over a span of 300 years, it would be predicted that $\gamma \ln C_{\max}$ should decrease continuously while $\ln C_{\max}$ should continuously increase, and this is exactly what is observed (see Figs 19 and 20). Specifically, for the period from 400 BCE to 100 BCE $\gamma \ln C_{\max}$ decreases from 21.97 to 20.31, while $\ln C_{\max}$ increases from 12.68 to 13.82; in the period from 700 CE to 1000 CE, the same trends are observed as $\gamma \ln C_{\max}$ decreases from 22.10 to 20.95, while $\ln C_{\max}$ increases from 12.90 to 14.00. It should be noted that there are fewer long term changes in which γ increases. However, if the period 200 CE to 500 CE is considered, the reverse trends would be predicted, *i.e.* an increase in $\gamma \ln C_{\max}$ with a concomitant decrease in $\ln C_{\max}$. In particular, $\gamma \ln C_{\max}$ increases from 20.40 to 21.61, and $\ln C_{\max}$ decreases from 14.00 to 13.12. Again, observations match predictions (see Fig. 21).

Fig. 17. This figure represents the change in $\ln F$ with respect to a and is hyperbolic in form but always positive

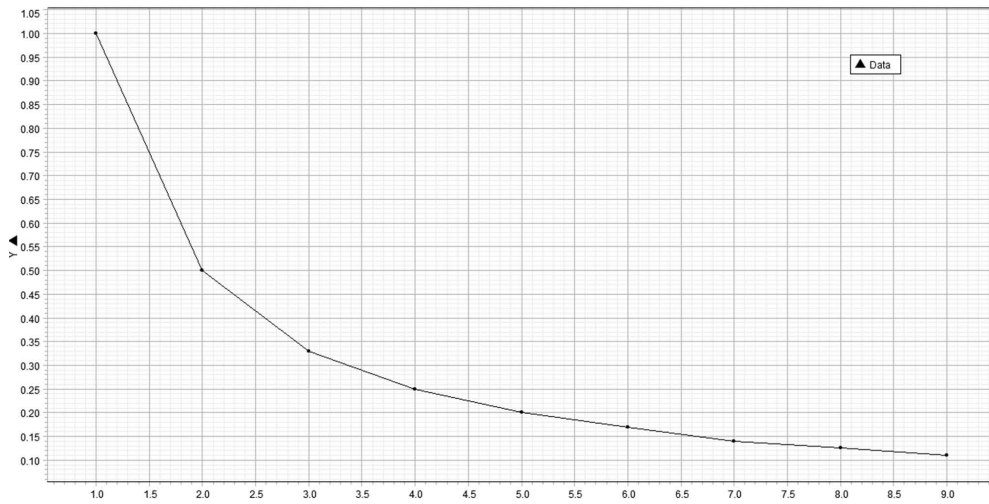


Fig. 18. This graph indicates that as C increases so does the rate of change of $\ln F$. However, the value of the rate of change in $\ln F$ is negative. This graph and the one in Fig. 17 appear to be mirror images of one another, suggesting that as urbanization, as represented by C_{\max} , increases both partial differentials reduce in effect

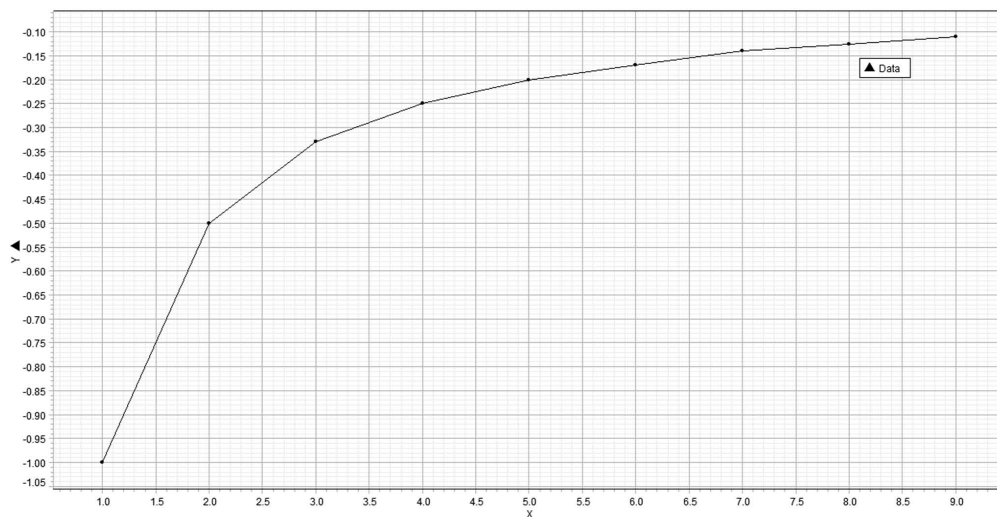


Fig. 19. This graph represents the change in the world system over a period of 300 years, from 400 BCE to 100 BCE, in which the absolute value of γ continuously decreases. As a consequence there is a continuous increase in $\ln C_{\max}$ and a decrease in $\gamma \ln C_{\max}$, which implies an increase in urbanization

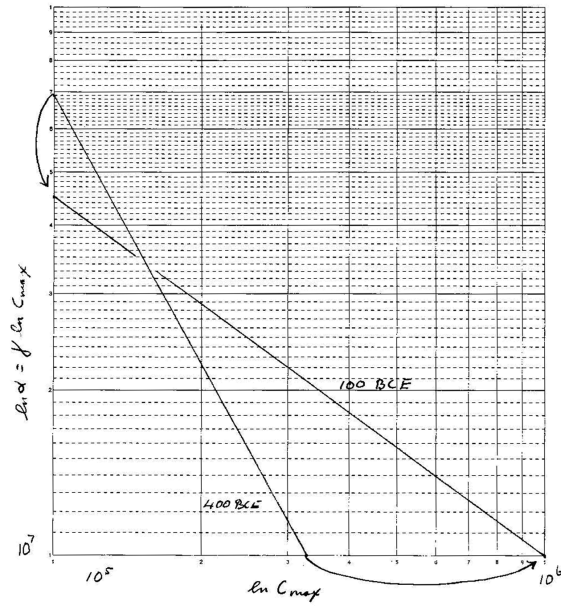


Fig. 20. As in Fig. 19 a continuous decrease in the absolute value of γ causes an increase in $\ln C_{\max}$ and decreases $\gamma \ln C_{\max}$ with the implication that the degree of urbanization increases during this period

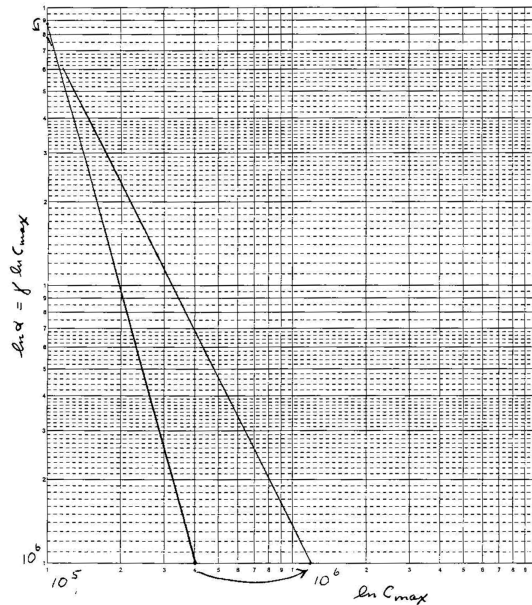
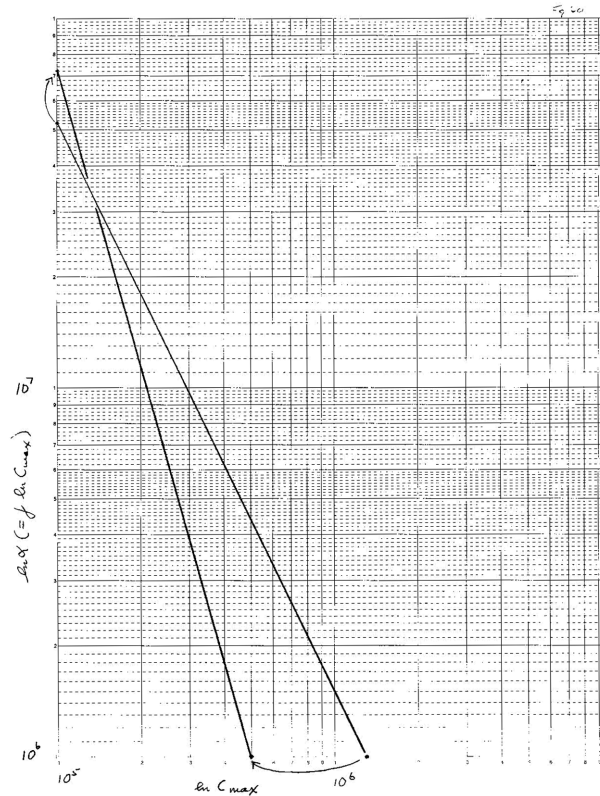


Fig. 21. This graph represents the effects of a continuous increase in gamma over the period, 200 CE to 500 CE. As expected, urbanization decreased, while the frequency of smaller communities increased



At this point it is worth considering what the system would be like if the changes adopted by the world system were not of the mixed-strategy variety. What would it mean for γ to increase while keeping $\ln C_{\max}$ constant? An increase in the value of $\gamma \ln C_{\max}$ would be required, and this implies an increase in the number of smaller urban areas. On the other hand if $\gamma \ln C_{\max}$ were to be held constant, then $\ln C_{\max}$ would have to be decreased, and as this expression would automatically decrease with increasing γ , it is easier to understand this change within the context of a change in γ . However, all the evidence suggests that both intercepts change, and this may be an accommodation to the cost of changing the position of the world system. In other words, changing γ involves both a change in the size of urban areas and also a change in the frequency of urban area size classes. It should also be noted that much more time is spent in adjustment of both $\gamma \ln C_{\max}$ and $\ln C_{\max}$ than in increasing population size. Why this should be is not obvious but probably involves adjusting to an optimal distribution of urban sizes and size distributions for a given global population size or, at least, global population size range.

While the rule of thumb with respect to the change in the positions of the abscissa and ordinate intercepts is that if C_{\max} or $\ln C_{\max}$, α and its log transform, $\ln \alpha (= \gamma \ln C_{\max})$, increases,

there are seven exceptions to this rule of thumb in which a decrease in γ , which is usually indicative of an increase in $\ln C_{\max}$ and a consequent decrease in $\gamma \ln C_{\max}$, is associated with an increase in $\gamma \ln C_{\max}$ or in one case where an increase in γ is associated with an increase in both $\ln C_{\max}$ and logically $\gamma \ln C_{\max}$. The following centuries are associated with an increase in $\gamma \ln C_{\max}$ and a decrease in γ : 900 BCE, 400 BCE, 600 CE, 1000 CE, 1900 CE, and 2000 CE, while 1800 CE shows an increase in γ , $\gamma \ln C_{\max}$, and $\ln C_{\max}$.

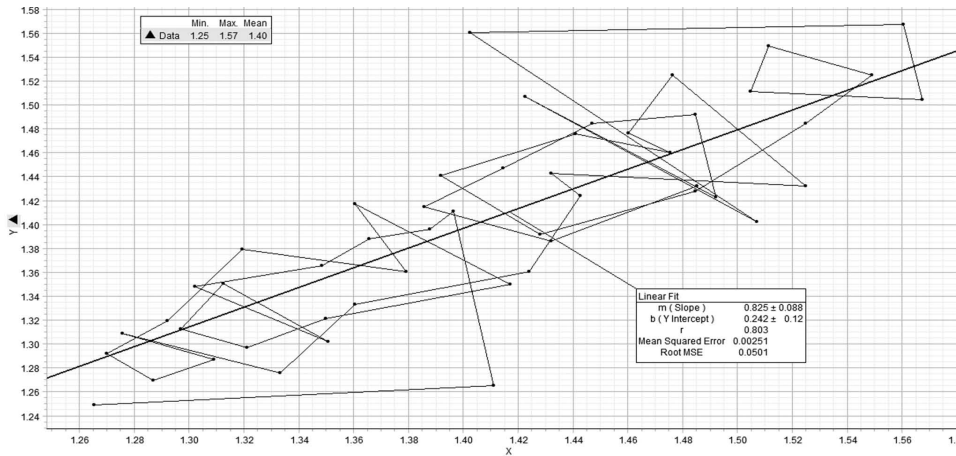
It is interesting to consider what factors might be at play with regard to changes in γ and the attendant changes in $\ln C_{\max}$ and $\gamma \ln C_{\max}$. That $\ln C_{\max}$ increases as γ decreases is both logically predictable and empirically verifiable. A decrease in the absolute value of γ implies of course an increase in $-\gamma$, the implications of which are that the largest urban areas increase and the frequency of the smallest collective classes of people decreases. It is as if there is a pump that moves the populace of the world system from a less urbanized to a more urbanized condition. The inverse, when the absolute value of γ increases, population movement can be thought of as going in the reverse direction, with urbanization being associated with larger numbers of smaller individual urban areas. In circumstances in which both $\gamma \ln C_{\max}$ and $\ln C_{\max}$ increase, the increase in urbanization must be relatively greater than the decrease in γ , but also there must be some synergy between smaller and larger urban areas.

Considering changes in γ alone, and defining γ as $\gamma = \ln \alpha / \ln C_{\max}$, allows $d\gamma$ to be defined as $d\gamma = 1/\ln C_{\max} - \ln \alpha / \ln 2C_{\max}$. On the other hand, when $d\gamma$ is plotted against γ using the appropriate values of $\ln \alpha$ and $\ln C_{\max}$, the graph (Fig. 18) may be approximated as linear, and a regression of $d\gamma$ on γ gives the equation: $d\gamma = .135 - .113\gamma$. Consequently, $.135 - .113\gamma = 1/\ln C_{\max} - \ln \alpha / \ln 2C_{\max}$, or $(.135 - .113\gamma)\ln 2C_{\max} - \ln C_{\max} + \ln \alpha = 0$. This equation is a quadratic and may be solved using the quadratic formula. The solutions yielded give close approximations for $\ln C_{\max}$ and consequently by transformation for C_{\max} . This indicates one more form of constraint on the system. It will now be revealing to consider the relationship between sequences of γ , *i.e.* $\gamma_n, \gamma_{n-1}, \gamma_{n-2}$, *etc.*

Of the three variables used to characterize the world system, as has been established previously, change in γ has the greatest effect on the system. In light of the importance of γ to the world system trajectory it will be important to investigate what the effects of current and past values of this variable will have on future values of the variable. This will be done graphically by investigating the graphs of $\gamma_{n+1}: \gamma_n, \gamma_{n+2}: \gamma_n$, and $\gamma_{n+3}: \gamma_n$. The relationship, $\gamma_{n+1}: \gamma_n$, will be investigated first.

In Fig. 22 γ_n is represented on the x-axis and γ_{n+1} is represented on the y-axis. With five significant exceptions the trend exhibited by this plot is linear and represented by the regression, $\gamma_{n+1} = .866\gamma_n + .2197$. The five outliers, numbered 1 through 5 on Fig. 22, represent the following centuries: (1) 2000 BCE, (2) 2200 BCE, (3) 2100 BCE, (4) 1900 BCE, and (5) 2000 CE. The first three points represent a period of time, 2200 BCE to 2000 BCE, during which the Early Bronze Age experienced considerable climatic, economic, and social change. There are a number of instances in which societal collapse occurred during this time, *e.g.* the Akkadian Empire, the Old Egyptian Empire, and a number of smaller city states such as that found at Tel Leilan, and the Indus Civilization. The last two outlying points represent the last two hundred years of the world system trajectory. Removal of these outliers from the data set gives a linear regression of: $\gamma_{n+1} = .847\gamma_n + .2562$, which is not significantly different from the previous regression.

Fig. 22. γ_n , x-axis, is plotted against γ_{n+1} , y-axis, in this graph revealing a linear distribution of points with several notable outliers



The implication of this regression is that there is a clear linear trend exhibited by the plot of the total population of points, in other words, that γ_{n+1} depends on γ_n in a simple, proportional fashion. However, if the sequence by which the space of the plot in Fig. 22 is traced chronologically, then the actual relationship, $\gamma_{n+1} : \gamma_n$, is not linear. In fact, the space, when critical points are removed resembles a parabola and potentially may indicate a chaotic system, although this point has yet to be confirmed (Fig. 22).

When considering the relationship between γ_n and γ_{n+2} , the relationship is unquestionably linear, but with greater dispersion of points (see Fig. 23). It should be noted that the overall shape of this distribution is dumbbell-like, and it should also be noted that this shape is a precursor of the distribution determined by $\gamma_{n+3} : \gamma_n$. The chronological sequence by which the space defined by $\gamma_{n+2} : \gamma_n$ is not as revealing as that defined by $\gamma_{n+1} : \gamma_n$.

Fig. 23. In this figure γ_n , x-axis, is plotted against γ_{n+2} , y-axis. In this graph, while the primary distribution is linear, there is a clear separation of two distinct clusters, to the right side of the graph one associated with the Ancient World, and one to the left associated with the Classical and Modern Worlds

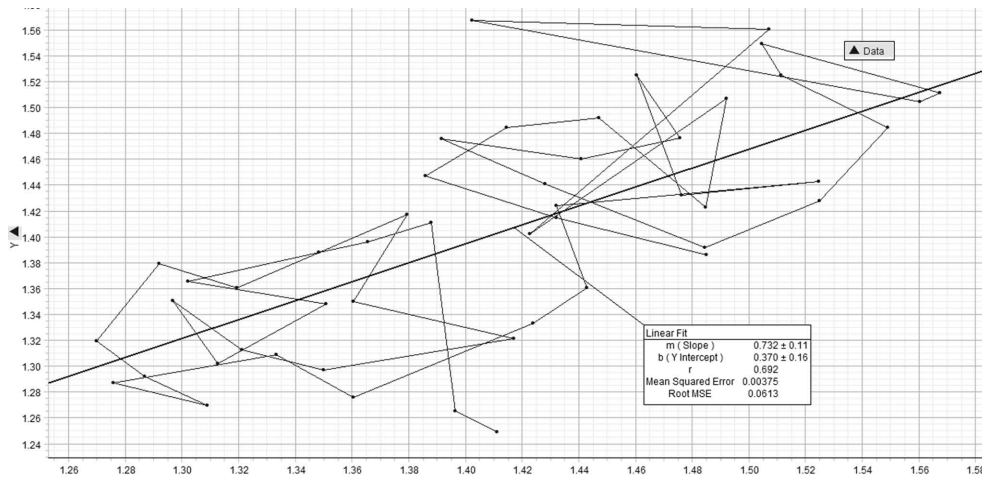
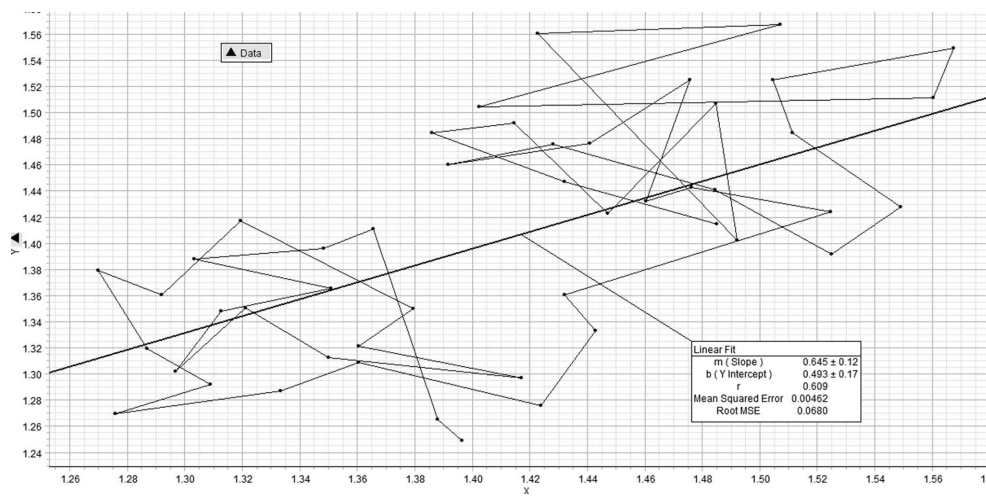


Fig. 24. This graph shows clearly that, as with the previous plots, the distribution of points is essentially linear. However, since γ_n , x-axis, is plotted against γ_{n+3} , y-axis, there is an even more distinct separation between the Ancient World on the right hand side of the graph and that of both the Classical and Modern worlds on the left than in Fig. 23. Also note that the transition between these two clusters of points occurs with an initially increasing value of the $\gamma: \gamma_{n+3}$ which moves the graph down and to the right. A similar trend occurs with the last three plots ending with the value of γ for 2000 CE



In Fig. 24 above, the plot of $\gamma_{n+3} : \gamma_n$, there are two discrete distributions of points and a shared unoccupied region between the two. The larger cluster is bounded by $1.37 \leq \gamma_n \leq 1.57$ and for γ_{n+3} the range is $1.39 - 1.57$, approximately the same, and the lower cluster of points is bounded by $1.27 \leq \gamma_n \leq 1.42$ and $1.24 \leq \gamma_{n+3} \leq 1.42$. The unoccupied region of overlap is bounded in the following way: $1.38 \leq \gamma_n \leq 1.42$ and $1.32 \leq \gamma_{n+3} \leq 1.45$. The implications of the first and third distributions are significant in that they imply limits on the values of γ_n adopted by the world system as it evolves over time. If γ_n falls within the bounds, $1.38 - 1.42$ then γ_{n+3} , a value of γ characteristic of the world system three hundred years on, cannot fall within the bounds, $1.38 - 1.45$. This condition places limits on the direction of the world system trajectory and suggests that the world system is not only limited by sequential values of γ but also by values of γ separated by 300 years! Further, the transition from the first, older cluster to the second and younger cluster had to involve considerable change in γ over that three hundred year period. For example, (1) is the last point in the upper, older cluster, and point (2) is the first in the lower cluster. (1) has the coordinates, 1.43 at 600 BCE and 1.36 at 300 BCE, and amounts to a change in γ of -0.07 . (2) has the coordinates, 1.42 at 400 BCE and 1.27 at 100 BCE, amounting to a change in γ of -0.15 . Note also that the changes from 600 BCE to 400 BCE and from 300 BCE to 100 BCE are respectively -0.01 and -0.09 . These values are all great enough to bridge the gap described previously. The gap itself may signify a clear difference between the Ancient World and the Classical World with respect to the parameters, γ , \underline{a} , and T , and is suggestive of a difference in organization and probably reflects differences in technology,

communication, and intellectual paradigms to suggest just three, that separates the Ancient World from the Classical World. It is worthwhile indicating here that points (3) and (4) represent the most recent past and the time that we are in currently and may be (are) harbingers of a revolutionary change in the position of the world system from its current trajectory. Is the world system entering another period of search pattern behavior? Time will tell.

As has been previously mentioned the world system has two broadly different aspects to its trajectory, periods of continuous change punctuated by periods termed search patterns. A casual inspection of Figs 3, 4, and 5 will show that even though these different aspects occur at different orders of magnitude with respect to \underline{a} and T , to the eye they appear within the context of mental scaling to be of the same magnitude. In more formal terms in any of the two-dimensional logarithmic plots the distance between any two consecutively chronological plots at one order of magnitude is within an order of magnitude of the distance between two consecutive points at a different order of magnitude. This casual inspection suggests self-similarity of world system behavior and that, as conjectured earlier in this paper, the world system behavior represented by the original equation, $F = \alpha C^{-\gamma}$, is scale-free.

In order to demonstrate this, the actual distances between points in Fig. 8b were calculated by using the Pythagorean theorem here represented by the equation: $H = [(a_1 - a_0)^2 + (T_1 - T_0)^2]^{1/2}$. (Note: The value for a_0 used to calculate H is always the initial value at 3000 BCE.) The magnitude of H was then divided by either the corresponding C_{\max} or T values, and these scale-normalized values of H were then plotted against time over the five thousand year range of the data on these variables. This gives the plot in Fig. 25.

Fig. 25. This graph represents a time series of the normalized changes in position of the world system per century over the last five thousand years. Normalization was done by dividing the change in position of the world system, a distance computed by Pythagorean Theorem, by the size of the maximum urban area of the current century. See text for explanation. Of significance is the very obvious periodicity of the world system trajectory when represented this way

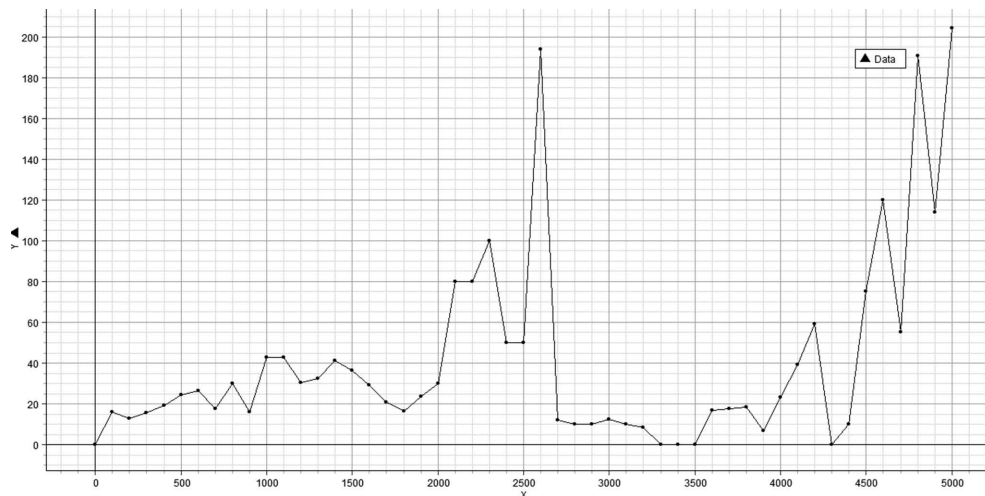
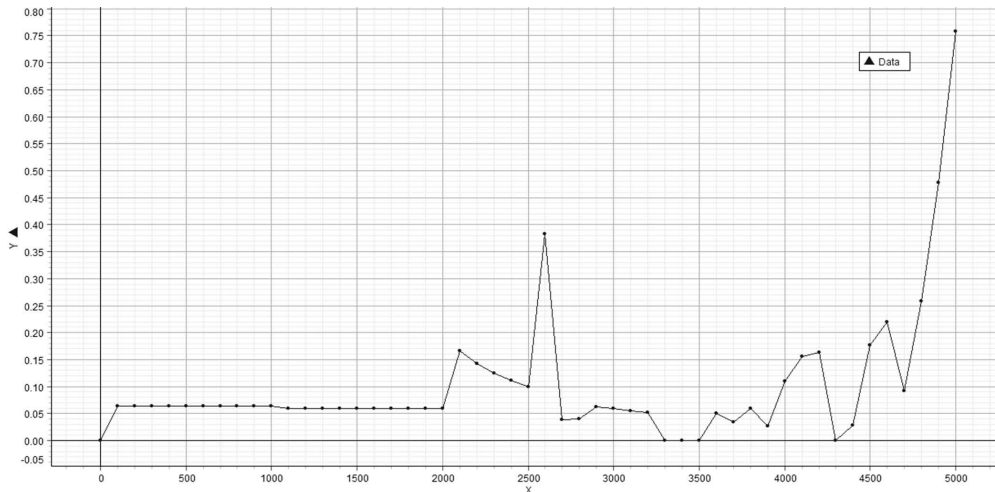


Fig. 26. This graph reveals the same pattern as in Fig. 25. However, the change in world system position was normalized by dividing the change in position of the world system by the total population of the system



There are two aspects of this graph that are striking. First there appears to be a repeated pattern, quasiperiodic, with a period of about 1400 years. Second, the world system behavior represented by this graph shows steep descent from the peak at 400 BCE, and it is tempting to speculate that the world system will experience another precipitous change in position within the next one hundred years or so based upon the current position of the world system.

It is also important to note that embedded within this graph are the basic features of Modelski's world system graph of world cities and global population. Note that at 1000 BCE as with 1000 CE the world system begins a steep climb which terminates about 1000 years afterwards. In other words, Modelski's Ages of Reorganization are represented in this graph by periods of time when there is reduced magnitude of H/C_{\max} , and the Ages of Growth in Modelski's model correspond to periods of increased magnitude of H/C_{\max} . There are also some other interesting features of this graph. There are periods of relatively little change in H/C_{\max} such as from 300 CE to 500 CE, and there are periods of constant change as characterized by the period from 100 BCE to 200 CE, where H changes is very little and consequently the position of the world system is relatively static. Finally and most importantly, the plots of both H/C_{\max} and H/T exhibit similar but not identical trends, with the magnitude of the trends being greater for H/C_{\max} , possibly implying that the trajectory of the system is more sensitive to changes in C_{\max} than it is to T . In light of the previously demonstrated inequality, $\partial f/\partial \gamma > \partial f/\partial a > \partial f/\partial T$, this should not be surprising as $a = C_{\max}/C_0$.

It has been previously established that γ is the most influential variable on the trajectory of the world system. Since the trajectory of the world system, when normalized to either C_{\max} or T exhibits a similar and periodic behavior over the 5000 year period analysed it will be important to consider the relationship between C_{\max} and γ and T and γ . To some extent this has already been done in an earlier portion of this segment of the paper, and at this point it will be briefly treated with respect to the similarity between the two regressions. However, a linear regression of the natural log-transformed data on both C_{\max} and T with respect to γ may be used to compare the influences of the two variables on γ and those regressions may also be used to investigate secondary trends not apparent in the original data.

A linear regression of $\ln T$ on γ was calculated giving Eq. 24: $\gamma = 3.7736 - .1106T$, and this equation was used to generate expected values for γ per T . The residuals of each pair of values, observed minus expected, were computed and plotted against time to give the graph in Fig. 27. Note that while this graph exhibits considerable variation there is a clear sinusoidal trend over the time period represented of 5000 years. Beyond this broad general trend there are several significant troughs that correspond to historically documented events. These are the Early Bronze Age Collapse occurring between 2200 BCE and 2000 BCE, the European Dark Age from approximately 400 CE to 800 CE, and the Plague Centuries from 1200 CE to 1400 CE. While it is important that the negative residuals correspond to collapse-related events, the inverse seems not to apply, since the florescence of a society occurs over a significant period of time. It is interesting to note that the period of time over which the Roman Empire became a world power is represented on the graph by a steep decline. This is also the period of time occupied by the Han Dynasty in China, the Kushan state in northern India, and the Sassanid Persians, and it is also a time during which an incipient Silk Road began functioning. That the temporal pattern of residuals over time does not specifically match specific and significant historical events should not be considered a weakness of the data, as the data represent global changes in γ , T , and a and are therefore system averages.

The program, Data Studio, was used to generate not only the plot in Fig. 27 but also to generate best-fit circular functions to this data. In Fig. 28 a sine curve is fitted to the data having an RMSE of .0874. The world system trajectory can then be represented by the equation, $R = a \sin(bT + c) + d$, where a , b , c , and d are fitted constants. The visual fit of the sine curve to the distribution of residuals is distinct, and the period of this fitted curve is 3740 years. Also, both florescences and declines of societies occurring during both the crests and troughs, *e.g.*, the Late Bronze Age Collapse is associated with a crest, while, again, the rise of Rome is associated with a trough. As a final note, we in the Twenty-first Century occupy a position on the second crest of this sinusoidal trend of the world system and are in the process of transitioning to the descending side of this curve.

Fig. 27. This figure represents a graph of the residuals of the Eq. 24 and exhibits a cyclical pattern which is formally defined by the next graph

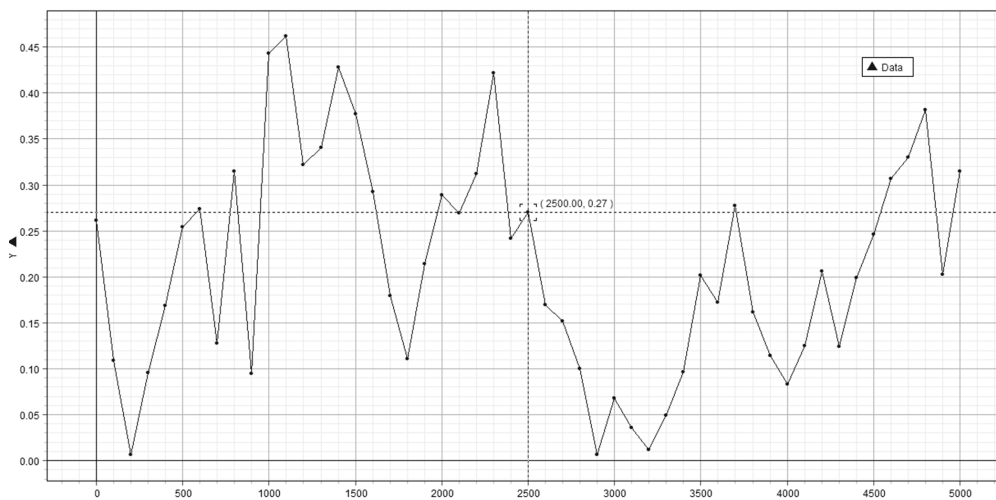
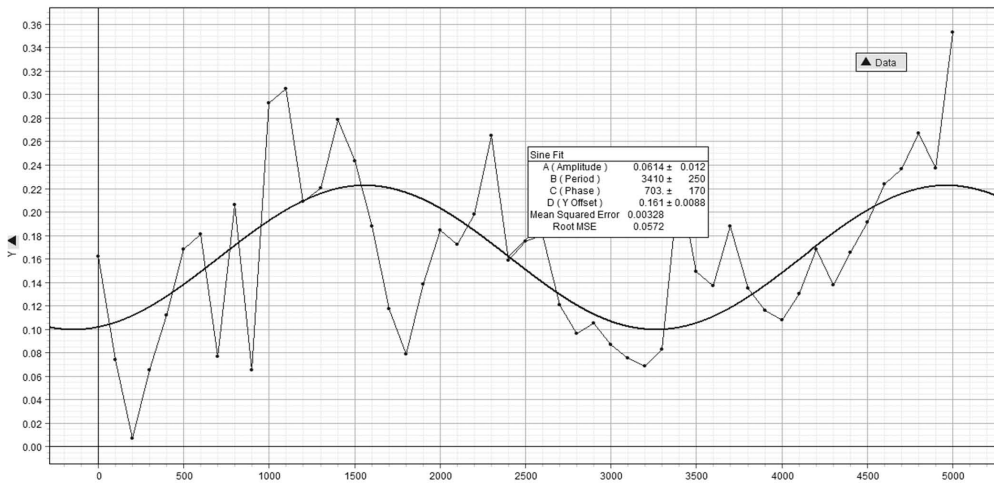
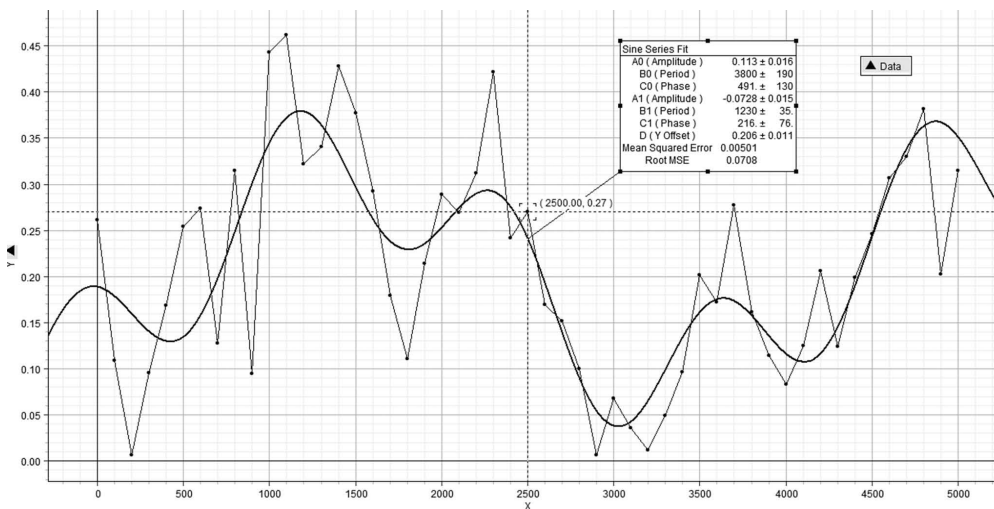


Fig. 28. The cyclical nature of this plot is represented by the equation, $R = a\sin(bT + c) + d$, in which R , the value of the residuals, is represented on the y-axis



If a sine-series fit on this data (see Fig. 29) is used instead of a sine fit, then the equation generated has the form: $R = a_0\sin[(b_0T)/1050 + c_0] + d_0 + a_1[(b_1T)/525 + c_1] + d_1$ and the resulting curve, while it exhibits an overall sinusoidal form, has multiple peaks and troughs, three per period, and an RMSE of .0708 suggesting a slightly better fit than the sine function alone. The period of this more complex sine-series curve is 3800 years. However, since this curve gives a slightly more accurate fit, the Late Bronze Age Collapse is now associated with a minor trough as are the European Dark Age and the Plague Century.

Fig. 29. This is a sine-series fit to the residuals of Eq. 24, is a better fit than the sine fit of Fig. 28



The same type of analysis can be performed on the relationship, $\ln a$ on γ , which produces similar results (see Fig. 30). However, while the sine fit gives a predictable curve with a different period, 3280 years as opposed to 3740 years. Also, the sine-series fit produces a different type of curve (see Fig. 31). These differences can be attributed to the differences between the process of urbanization and that of global population growth, and it is important to recognize that these curves are out of phase with the process of urbanization occurring with a shorter period than that of global growth.

Fig. 30. This graph is of the residuals of $\ln a$ with respect to γ over time and has the same general form as the graph in Fig. 27 with some minor differences. These differences, however, do manifest themselves in a different sine-series fit than in Fig. 29. See Fig. 31

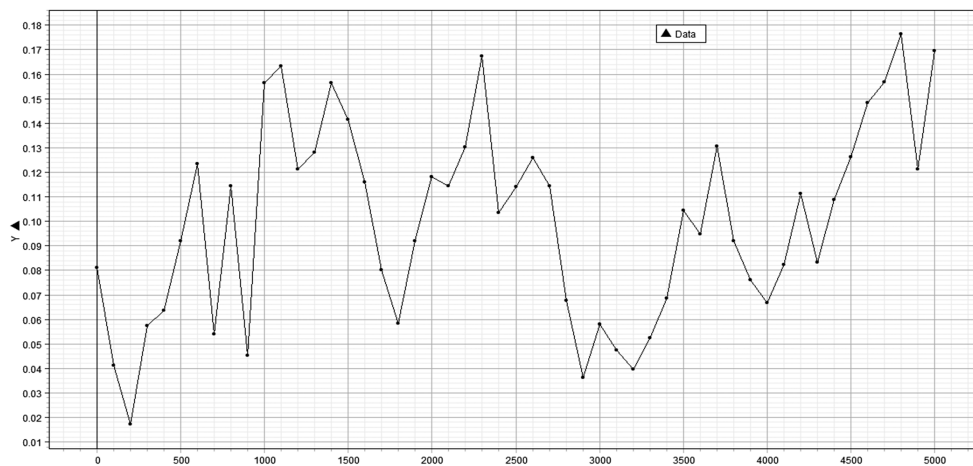
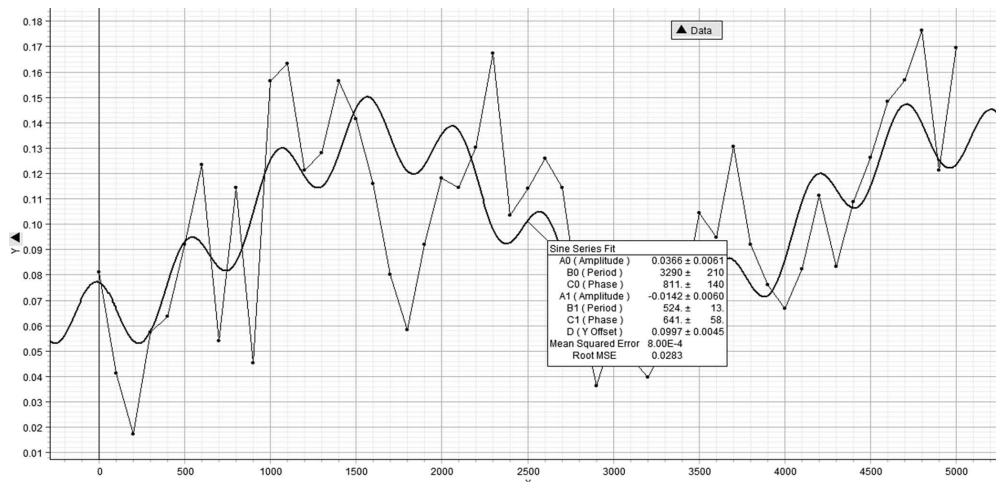


Fig. 31. A sine-series fit of the data represented in Fig. 30 is given here. Clearly, while this fit gives a closer approximation to the events represented, there is much that is not coincident with this fit, *e.g.*, the significant troughs toward the end of both the Early and Late Bronze Ages



Summary

The intent of this paper is to present a means of representing the trajectory of the world system over the last 5000 years. This is done by first constructing a mathematical model based on the assumption that urban area distribution in any given time period can be represented by $F = \alpha C^{-\gamma}$ (Eq. 1). The model based on this assumption, $a^\gamma C_0^{\gamma-1} - a - (\gamma-1)T/C_0 = 0$ (Eq. 18), permits both the construction of a theoretical landscape, which represents all possible states of the world system and also the actual path of the world system based on values of γ , $\ln a$, and $\ln T$. The general morphology of the theoretical landscape is one of a mostly flat plane which slopes upward as γ decreases and both $\ln a$ and $\ln T$ increase. The theoretical landscape has a critical edge at $\gamma = 0$, as at that value the equation equals zero regardless of the values of either a or T . It is within this framework, this standard of comparison that the actual position and trajectory of the world system is analysed.

It was discovered, by analysing the variables in a pair-wise fashion, *i.e.* $\ln a$ v. γ , $\ln T$ v. γ , and $\ln T$ v. $\ln a$, that in the instances where both $\ln a$ and $\ln T$ are plotted against γ , these relationships are inverse, while $\ln T$ v. $\ln a$ is a directly proportional and effectively linear relationship. However, within these broad trends there are two sub-trends that are unsurprisingly common to all three plots. These are periods of oscillation punctuated by periods of continuous, directed growth. The oscillatory periods are labeled search-patterns due to their apparent searching for the appropriate state of the world system that will then allow continuous, directed change over several centuries. There are two broad periods of these search-patterns, one encompassing the time period associated with most of the Ancient World, 2700 BCE to about 600 BCE, and the other from 100 BCE to 1800 CE, which includes much of the Classical World, the Middle Ages, the Renaissance, and the Modern World to 1800 CE. It should be noted here that more could be made of the fine structure of these periods, however that is not the focus of this paper.

Both search-pattern periods are defined in terms of their graphical position with no special regard to specific historical events. It was previously pointed out that both search-patterns include periods of collapse and the attendant Dark Ages or Ages of Reorganization to these periods of collapse. While the search-patterns are characteristic of all plots, it is noted that changes in γ are associated with almost no change in the magnitude of $\ln T$, but as γ decreases in absolute value $\ln a$ increases and *vice versa*. As was mentioned previously the relationship between $\ln T$ and $\ln a$ is direct and can be represented by the linear equation, $\ln T = .873 \ln a + 11.500$.

There are a number of important implications of these major trends which are characteristic of the world system trajectory. Clearly, urbanization is associated with increases in global population, and, in fact, T is probably dependent on urbanization for its increase. An important consequence of this dependency is that the fraction of non-urban or rural population decreases over time as is represented by the equation: $T_u/T_r = (a^{1-\gamma} - 1)/(1 - C_0^{\gamma-1})$ (Eq. 23). Another important consequence of the world system trajectory is that it occupies very little of the theoretical landscape delineated earlier.

The chief components affecting the position of the world system within the theoretical space defined are the relative effects of changing γ , a , and T on Eq. 18. It is shown that changing γ as represented by the partial derivative, $\partial f/\partial \gamma$, has the greatest influence on

the world system trajectory. The implications of this are far reaching. Since γ is a measure of the distribution of urban areas and is also a proxy for world system connectedness, periods of change in γ represent periods of change in the distribution of urban areas and consequently in their connectedness. Increases in γ , *i.e.* in the absolute value of γ , affect the distribution so that there are fewer urban areas with high populations and many more with lower populations. This is a process of de-urbanization, increasing ruralization, and reduced connectedness within the world system. The reverse holds for decreasing values of γ ; these periods represent increasing urbanization and greater connectedness.

Change in the world system may be represented in a variety of ways. The natural log transform of Eq. 1 gives $\ln F = \ln \alpha - \gamma \ln C_{\max}$, and for appropriate values of α and C_{\max} then it is shown that $\gamma = \ln \alpha / \ln C_{\max}$, and per century the state of the world system may be represented graphically by the triangular area bounded by the natural log transform of Eq. 1 and the x-axis and y-axis intercepts. Given this graphical representation then the change in the state of the world system can be represented by changes in $\ln \alpha$, $\ln C_{\max}$, or both, a mixed strategy in other words. It can be shown that when γ decreases $\ln \alpha$ decreases and $\ln C_{\max}$ increases, however when γ increases, the reverse occurs. In other words and even in the face of increasing population, T , changes in γ are associated with a mixed strategy employing change in both $\ln \alpha$ and $\ln C_{\max}$. One anomaly has been noted, that of the change associated with the change in the state of the world system from 1300 CE to 1400 CE where both intercepts increase. Excluding this anomalous instance unquestionably the mixed strategy imposes a constraint on the trajectory of the world system.

That the world system has a trajectory suggests that past conditions of the world system influence its future position. This effect was investigated by considering plots of γ_{n+1} v. γ_n , γ_{n+2} v. γ_n , and γ_{n+3} v. γ_n . As might be expected the plot of γ_{n+1} v. γ_n is essentially linear, however the plots, γ_{n+2} v. γ_n , and γ_{n+3} v. γ_n , reveal that the data cluster into two discrete sets implying a boundary condition between the Ancient and Classical World on the one hand and the Medieval and Modern ones on the other. The influence of the magnitude of γ two and three centuries later suggests a clear and probably qualitative difference between the two sets of points. Further, the transition from the older set of points to the set including the current world system suggests a unique pathway between those two sets.

Observation of the plots, $\ln \alpha$ v. γ , and $\ln T$ v. γ reveals a repeating pattern of oscillations punctuated by continuous change. If the distance in theoretical space over which the world system moves from century to century is scaled by dividing by either $\ln \alpha$ or $\ln T$ the graph of these scaled distances over time reveals a cyclical trend with an approximate period of 2400 years giving peaks at 400 BCE and 2000 CE. Both plots give similar patterns in which the largest shifts of the world system are succeeded by periods of relative stasis that extend over several centuries. It appears that we are currently on the doorstep of such a period.

The relationship of γ v. $\ln T$ was investigated to reveal any secondary trends as was the relationship, γ v. $\ln \alpha$. The residuals of both regressions revealed similar cyclical trends which were then fitted to both sine and sine-series functions. The periodicity of these trends ranged from approximately 3300 years to 3800 years. The sine function fit of the γ v. $\ln T$ data gives a period of 3700 \pm 210 years with peaks in the middle of the second millennium BCE and now and troughs at the beginning of the Bronze Age and the time

of Late Antiquity. However, this general fit does not account for many of the smaller troughs and peaks in the residual-generated graph, *e.g.*, a trough at the end of the Early Bronze Age and a peak at approximately 700 CE are associated respectively with a peak and a trough of the actual sine function. These and other details are not reflected in the sine fit. The sine-series fit of the same data give better but not complete resolution suggesting that these trends are predictable.

The same sets of trends are observable in both the sine and sine-series fit of the residuals of γ v. $\ln\alpha$ linear regression. The periods for these fits are respectively 3280 \pm 220 years and 3290 \pm 210 years. It is noted however that while the overall trends represented by both sine and sine-series fit are similar, due to differences in periodicity, the curves themselves are offset. Since the periods are not similar, the interrelationship of the urbanization and total world system population size is not a directly interactive one as is, say, the relationship between predator and prey.

In brief then the following statements may be made about the trajectory of the world system over the last 5000 years:

1. With respect to the variables, γ , $\ln\alpha$, and $\ln T$, the world system clearly exhibits a non-random pattern or trajectory over the last 5000 years.

2. In pair-wise analysis of the variable listed in No. 1 similar patterns emerge, but with respect to γ in relation to either $\ln\alpha$ or $\ln T$ the relation is inverse, while the relation between $\ln\alpha$ and $\ln T$ is direct.

3. The world system exhibits periods of oscillation punctuated by periods of continuous change, the latter always being associated with a decrease in the absolute value of γ .

4. Change in the magnitude of γ has the greatest influence on the state and direction of the world system trajectory.

5. The world system is a non-equilibrium system.

6. In natural log phase space the world system can be represented as an area bounded by $\ln F = \ln\alpha - \gamma \ln C_{\max}$, and a change in the nature of this phase space involves a mixed strategy of changing both the x-axis and y-axis intercepts, $\ln C_{\max}$ and $\ln\alpha$. There is at least one exception to this strategy, that of the transition from 1300 CE to 1400 CE.

7. The magnitude of γ is influenced by prior values of this variable, and the graph of γ separated by three centuries on itself reveals a clear separation between the (relatively) Modern World and the Classical and Ancient Worlds.

8. The behavior of the world system, as measured by distance moved per century, is shown to be similar at different orders of magnitude scaled by both $\ln\alpha$ and $\ln T$. Specifically, a repeating pattern is evident in which large movements of the world system within the theoretical space defined by Eq. 18 are succeeded by periods of near stasis.

9. The greatest change in γ occurs between 1000 BCE and 1 CE.

10. Residuals of the linear regression of $\ln\alpha$ v. γ and $\ln T$ v. γ reveal cyclical patterns that can be modeled by both sine and sine-series functions. The curves produced by these functions are faithful to and coincident with a number of major historical events including but not limited to various age-terminating collapses.

Mathematical appendix

Derivation of Equation 18

The total population of the world system, T , is then the sum of the world system urban population T_u , and that portion of the population existing rurally, T_r . Each of these is an integral of F , however, by modifying the integral of the total population an expression can be derived that will permit T , a , the ratio of the largest urban area to the smallest urban area, and γ , as defined previously, to be interrelated:

$$T = \int F = \alpha \int C^{-\gamma} dC, \quad (\text{Eq. 2})$$

but with different limits. T_u has the limits, C_0 to C_{\max} , where these limits represent the smallest and largest urban, and the definite integral has the form:

$$T_u = [\alpha/(1-\gamma)][C_{\max}^{1-\gamma} - 1]. \quad (\text{Eq. 3})$$

T_r has the limits, 1 to C_0 , and the definite integral is:

$$T_r = [\alpha/(1-\gamma)][C_0^{1-\gamma} - 1]. \quad (\text{Eq. 4})$$

Note that C_{\max} can be expressed as a function of C_0 in that C_{\max} is a multiple of C_0 and can be represented by:

$$C_{\max} = aC_0, \quad (\text{Eq. 5})$$

where a is some real number greater than zero. Also note that, assuming that there can theoretically be a single largest urban area, then Eq. 1 can be rewritten as:

$$1 = \alpha C_{\max}^{-\gamma}. \quad (\text{Eq. 6})$$

It follows then that:

$$\alpha = C_{\max}^{\gamma}. \quad (\text{Eq. 7})$$

In turn and according to Eq. 4, Eq. 6 may be rewritten as:

$$\alpha = a^{\gamma} C_0^{\gamma}. \quad (\text{Eq. 8})$$

So, then substituting into Eq. 3 gives:

$$T_u = [a^{\gamma} C_0^{\gamma} / (1-\gamma)] [a^{1-\gamma} C_0^{1-\gamma} - C_0^{1-\gamma}], \quad (\text{Eq. 9})$$

and further simplifying gives:

$$T_u = [a^{\gamma} C_0^{\gamma} C_0^{1-\gamma} / (1-\gamma)] [a^{1-\gamma} - 1], \quad (\text{Eq. 10})$$

which may be further simplified to:

$$T_u = [a^{\gamma} C_0 / (1-\gamma)] [a^{1-\gamma} - 1]. \quad (\text{Eq. 11})$$

By the same reasoning then T_r may be represented as:

$$T_r = [a^{\gamma} C_0 / (1-\gamma)] [1 - C_0^{\gamma-1}]. \quad (\text{Eq. 12})$$

Since

$$T = T_u + T_r, \quad (\text{Eq. 13})$$

then by substitution:

$$T = [a^{\gamma} C_0 / (1-\gamma)] [a^{1-\gamma} - 1] + [a^{\gamma} C_0 / (1-\gamma)] [1 - C_0^{\gamma-1}]. \quad (\text{Eq. 14})$$

Further rearrangement gives:

$$T = [C_0 / (1-\gamma)] [a - a^{\gamma}] + [a^{\gamma} C_0 / (1-\gamma)] [1 - C_0^{\gamma-1}], \quad (\text{Eq. 15})$$

then by further rearrangement:

$$T = aC_0 / (1-\gamma) - a^{\gamma} C_0 / (1-\gamma) + a^{\gamma} C_0 / (1-\gamma) - a^{\gamma} C_0^{\gamma} / (1-\gamma). \quad (\text{Eq. 16})$$

Noticing that the second and third terms cancel and multiplying through by $(1-\gamma)/C_0$ gives:

$$(1-\gamma)/C_0 T = a - a^{\gamma} C_0^{\gamma-1}, \quad (\text{Eq. 17})$$

and a final rearrangement gives:

$$a^\gamma C_0^{\gamma-1} - a - (\gamma - 1)T / C_0 = 0. \quad (\text{Eq. 18})^*$$

* Please note that the same equation could be derived directly by integrating over the limits, 1 to C_{\max} , however, it was felt that by doing a piecemeal integration, it would be easier to understand where urbanization fits into the larger context of the total world system population. Also, it is understood that the distribution represented by Eq. 1, $F = \alpha C^{-\gamma}$, implies that the largest class, *i.e.* the class with the highest frequency, would be individuals living alone. This is clearly not the case, however, in this paper this inadequacy of the model will be ignored.

Derivation of Equation 23

Recalling that $C_{\max} = aC_0$, that $\alpha = C_{\max}^\gamma$, and that $T_u = \alpha \int C^{-\gamma} dC$ over the limits C_0 to C_{\max} , then the evaluation of this integral is:

$$T_u = [(a^\gamma C_0^\gamma) / (1 - \gamma)] [C_{\max}^{1-\gamma} - C_0^{1-\gamma}], \quad (\text{Eq. 19})$$

which simplifies to:

$$T_u = [(a^\gamma C_0^\gamma) / (1 - \gamma)] [a^{1-\gamma} C_0^{1-\gamma} - C_0^{1-\gamma}], \quad (\text{Eq. 20})$$

and further simplifies to:

$$T_u = [(a^\gamma C_0) / (1 - \gamma)] [a^{1-\gamma} - 1]. \quad (\text{Eq. 21})$$

Using the same reasoning the integral, T_r , can be evaluated over the limits, 1 to C_0 , as:

$$T_r = [(a^\gamma C_0) / (1 - \gamma)] [1 - C_0^{1-\gamma}]. \quad (\text{Eq. 22})$$

Since the term, $[(a^\gamma C_0) / (1 - \gamma)]$, is common to both Eq. 21 and Eq. 22, the ratio, T_u / T_r , becomes:

$$T_u / T_r = (a^{1-\gamma} - 1) / (1 - C_0^{1-\gamma}). \quad (\text{Eq. 23})$$

Tables

CENTURY	SEQUENCE	T	C_{\max}	a	γ_0
1	2	3	4	5	6
3000 BCE	0	14E6	40E3	4E2	1.4851
2900	100	14.95E6	60E3	6E2	1.4245
2800	200	15.97E6	80E3	8E2	1.3859
2700	300	17.05E6	70E3	7E2	1.4145
2600	400	18.21E6	60E3	6E2	1.4470
2500	500	19.44E6	50E3	5E2	1.4847
2400	600	20.76E6	50E3	5E2	1.4921
2300	700	22.17E6	80E3	8E2	1.4227
2200	800	23.68E6	50E3	5E2	1.5070
2100	900	25.29E6	10E4	1E3	1.4024
2000	1000	27E6	40E3	4E2	1.5604
1900	1100	28.72E6	40E3	4E2	1.5674
1800	1200	30.54E6	60E3	6E2	1.5047
1700	1300	32.49E6	60E3	6E2	1.5115

Table (continued)

1	2	3	4	5	6
1600	1400	34.55E6	50E3*	5E2	1.5491
1500	1500	36.74E6	60E3	6E2	1.5250
1400	1600	39.08E6	80E3	8E2	1.4846
1300	1700	41.56E6	12E4	1.2E3	1.4280
1200	1800	44.20E6	16E4	1.6E3	1.3917
1100	1900	47.01E6	12E4	1.2E3	1.4410
1000	2000	50E6	10E4	1E3	1.4756
900	2100	60E6	12.5E4	1.25E3	1.4603
800	2200	70E6	12.5E4	1.25E3	1.4763
700	2300	80E6	10E4	1E3	1.5248
600	2400	90E6	20E4	2E3	1.4322
500	2500	10E7	20E4	2E3	1.4428
400	2600	16.2E7	32E4	3.2E3	1.4239
300	2700	15.6E7	50E4	5E3	1.3606
200	2800	15E7	60E4	6E3	1.3333
100	2900	16E7	10E5	1E4	1.2757
1 CE	3000	17E7	80E4	8E3	1.3090
100	3100	18E7	10E5	1E4	1.2869
200	3200	19E7	12E5	1.2E4	1.2699
300	3300	19E7	10E5	1E4	1.2920
400	3400	19E7	80E4	8E3	1.3195
500	3500	19E7	50E4	5E3	1.3793
600	3600	20E7	60E4	6E3	1.3606
700	3700	20.7E7	40E4	4E3	1.4170
800	3800	22E7	70E4	7E3	1.3499
900	3900	22.6E7	90E4	9E3	1.3211
1000	4000	25.4E7	12E5	1.2E4	1.2969
1100	4100	30.1E7	12E5	1.2E4	1.3125
1200	4200	36E7	10E5	1E4	1.3508
1300	4300	36E7	15E5	1.5E4	1.3022
1400	4400	35E7	10E5	1E4	1.3483
1500	4500	42.5E7	10E5	1E4	1.3657
1600	4600	54.5E7	10E5	1E4	1.3879
1700	4700	60E7	10E5	1E4	1.3963
1800	4800	81.3E7	11E5	1.1E4	1.4112
1900	4900	15.5E8	65E5	6.5E4	1.2654
2000	5000	62E8	23E6	2.3E5	1.2490

Partial Derivative Table

T	T/C ₀	γ	a	∂f/∂γ	∂f/∂a
106	104	1.00	400	-5761	0
“	“	1.1	“	2987	3
“	“	1.25	“	49944	17
“	“	1.50	“	1317048	299
“	“	1.75	“	3.5E13	4949
“	“	1.25	400	49944	17
“	“	1.25	4000	1287592	30
“	“	1.25	12000	5549521	40
“	“	1.25	24000	13867614	48

The following equations were used to calculate the values listed in the Partial Derivative Table: $a^\gamma C_0^{\gamma-1} - a - (\gamma - 1)T/C_0 = 0$, $\partial f/\partial \gamma = a^\gamma \ln(a) + a^\gamma C_0^{\gamma-1} \ln C_0 - T/C_0$, $\partial f/\partial a = \gamma a^{\gamma-1} C_0^{\gamma-1} - 1$.

Acknowledgements

I wish to acknowledge the following people for their help and counsel: Prof. Dmitri Bondarenko, Prof. Leonid Grinin, Prof. Andrey Korotayev, Sherry Donovan, Paul Kim, Mary Lappan, David Reinstein, Sarah Kapnick, Prof. Peter Turchin, and Lauren Dickey. I wish to give special thanks to Boris Spektor without whose technical assistance this paper would not have been possible. I also wish to thank Kseniya Ukhova for her excellent editorial assistance. While all made significant contributions to this work, I alone accept full responsibility for any errors.

References

- Ball, P. 2009.** *Branches. Natures Patterns: A Tapestry in Three Parts*. New York: Oxford University Press.
- Chandler, T. 1987.** *Four Thousand Years of Urban Growth*. New York: Edwin Mellen Press.
- Diakonov, I. M. 1999.** *The Paths of History*. New York: Cambridge University Press.
- Frank, A. G., and Thompson, W. R. 2005.** Afro-Eurasian Bronze Age Economic Expansion and Contraction Revisited. *Journal of World History* 16(2): 115–172.
- Jaspers, K. 1965.** *The Origin and Goal of History*. New Haven: Yale University Press.
- Korotayev, A., and Grinin, L. 2006.** Urbanization and Political Development of the World System: A Comparative Quantitative Analysis. *History and Mathematics. Historical Dynamics and Development of Complex Societies* / Ed. by P. Turchin, L. Grinin, A. Korotayev, and V. de Munck (pp. 115–153). Moscow: KomKniga/URSS.
- Korotayev, A., and Khaltourina, D. 2006.** *Introduction to Social Macrodynamics: Secular Cycles and Millennial Trends in Africa*. Moscow: URSS.
- Korotayev, A., Malkov, A., and Khaltourina, D. 2006a.** *Introduction to Social Macrodynamics: Compact Macromodels of the World System Growth*. Moscow: URSS.

- Korotayev, A., Malkov, A., and Khaltourina, D. 2006b.** *Introduction to Social Macrodynamics: Secular Cycles and Millennial Trends*. Moscow: URSS.
- Marx, K. 1977.** *A Contribution to the Critique of Political Economy*. Moscow: Progress Publishers.
- Modelski, G. 2003.** *World Cities: –3000 to 2000*. New York: Faros.
- Raup, D. M., and Michelson, A. 1965.** Theoretical Morphology of the Coiled Shell. *Science* 3663: 1294–1295.
- Toynbee, A. 1946.** *A Study of History*. New York: Oxford University Press.
- Turchin, P. 2003.** *Historical Dynamics: Why States Rise and Fall*. Princeton: Princeton University Press.
- Turchin, P., and Nefedov, S. A. 2009.** *Secular Cycles*. Princeton, NJ: Princeton University Press.
- Wallerstein, I. 1974.** *The Modern World System*. New York: Academic Press.
- Wallerstein, I. 2004.** *World System Analysis: An Introduction*. Durham, NC: Duke University Press.

Global Technological Transformations

Leonid E. Grinin and Anton L. Grinin

What determines the transition of society from one level of development to another? One of the most fundamental causes is global technological transformations. Among all major technological breakthroughs in history the most important are the three production revolutions: 1) the Agrarian Revolution; 2) the Industrial Revolution and 3) the Scientific-Information Revolution which will transform into the Cybernetic one.

The article introduces the Theory of Production Revolutions. This is a new explanatory paradigm which is of value when analyzing causes and trends of global shifts in historical process. The article describes the course of technological transformations in history and demonstrates a possible application of the theory to explain the present and forthcoming technological changes. The authors argue that the third production revolution that started in the 1950s and which they call the Cybernetic one, in the coming decades, that is in the 2030s and 2040s, will get a new impetus and enter its final stage – the epoch of (self)controllable systems. There are given certain forecasts concerning the development in such spheres as medicine, biotechnologies and nanotechnologies in the coming decades (the 2010s – 2060s).

Keywords: *production revolution, production principle, historical process, the Agrarian revolution, the Industrial revolution, the Cybernetic revolution, controllable systems, biotechnology, medicine, nanotechnology, technology.*

Among all major technological breakthroughs in history the most important are the three production revolutions: 1) the Agrarian Revolution; 2) the Industrial Revolution and 3) the Scientific-Information Revolution which will transform into the Cybernetic one. From our point of view, each revolution initiates a new stage of development of the world productive forces as well as a transition to a new stage of historical process. In the age of globalization one observes a growing interest in the global technological transformations as well as in other global processes.

The present article introduces a new explanatory paradigm – *the theory of production principles and revolutions* – relevant for the analysis of the causes and trends of major technological breakthroughs as well as of the global shifts in historical process.

1. On Historical Process

A few words are necessary in order to clarify our understanding of the ‘historical process’ notion (for more details see Grinin 2007a, 2012). The first point to note is that this concept is in no way synonymous with ‘world history’.¹ Of course, the notion of

¹ However, even the very notion of ‘world history’ and ‘universal history’, although a number of scholars recognize it as an important concept (e.g., Ghosh 1964; Pomper 1995; Geyer and Bright 1995; Manning 1996), had been con-

historical process is based on world history facts. However, firstly, there have been chosen only those facts that are the most important from the point of view of process and changes; secondly, this set of facts has been ordered and interpreted in accordance with the analyzed spatial and temporal scales, trends and logics of historical development of humankind (or at least the World-System) as a whole, as well as the present-day results of this development. In other words, historical process is in no way a mechanical sum of the histories of numerous peoples and societies, it is not even just the process resulting from movement and development of these people and societies. The historical process is a growing and even cumulative process of societal integration that has a certain direction and result. The notion of the historical process of *humankind* does not imply that humankind has always been a real system. It implies the following: (a) we select a respective scale for our analysis; (b) we take into account the fact that over all the periods of historical process the societies, civilizations and its other actors have been developing unevenly, *i.e.* at a different rate of social progress; (c) from the methodological point of view it indicates that for the analysis of historical process the most important is the model of the influence produced by more developed regions on the less developed ones; (d) the interaction scale expands from one period to another until it reaches the scale of the whole planet (in this situation it becomes equal to the notion of the World-System); (e) hence, the historical process of humankind is, first of all, the process of movement from autonomous and isolated social minisystems towards the formation of the present extremely complex system of intensely interacting societies; (f) when (and if) humankind transforms into a subject whose development as a whole is determined (at least partially) by a general and explicitly expressed collective will, the historical process in its current meaning will come to its end, and this will lead to a transition to a new generation of processes.

Thus, historical process is a notion that generalizes an intricate complex of internal transformations and actions of various historical subjects, as a result of which important societal changes and integration, continuous enlargement of intersocietal systems take place, transition to the new levels of development is going on, and in general (taking into consideration the present results and future prospective), humankind gets transformed from a potential unity into an actual one.

2. The Production Principles and Production Revolutions

According to the theory that we propose, the historical process can be subdivided more effectively into four major stages or four formations of historical process. The transition from any of these formations into another is tantamount to the change of all the basic characteristics of the respective formation. However, in addition to this principal basis of periodization (that determines the number of singled out periods and their characteristics), we need an additional basis, by means of which the chronology may be worked out in detail.

As such an additional basis we have proposed the *production principle* (e.g., Grinin 2007a, 2007b; 2012: ch. 1; 2013) that describes the major qualitative stages of the development of the world productive forces. One may regard three production revolutions

sidered rather useless for a long time by historians and social scientists, and even now very few of them recognize it (see Pomper 1995; Geyer and Bright 1995). But the most important is that 'while historians increasingly recognize the importance of world history, they remain relatively ignorant about it as a developing field' (Pomper 1995: 1).

(the Agrarian, the Industrial, and the Cybernetic ones) as the borders between production principles.

We single out four **production principles**:

1. Hunter-Gatherer.

2. Craft-Agrarian.

3. Industrial.

4. Scientific-Cybernetic.

Though the qualitative transformations in some spheres of life are closely connected with changes in the other ones (and, thus, no factors can be considered as absolutely dominant), some spheres (with respect to their influence) can be considered as more significant; that is, changes within them are more likely to lead to changes in other spheres than the other way round.² The production principle belongs to such spheres due to the following reasons:

1. Significant changes in the production basis lead to the production of more surpluses and to a rapid population growth. And both these processes lead to changes in all other spheres of life. Still a transition to new social relations, new religious forms *etc.* is not so directly connected with demographic changes as are the transformations of the production principle.

2. Though a significant surplus can be the result of some other causes (natural abundance, successful trade or war), such exceptional conditions cannot be borrowed, whereas new productive forces can be borrowed and diffused, and thus, they appear in many societies.

3. Production technologies are applied by the whole society (and what is especially important, by the lower social strata), whereas culture, politics, law, and even religion are systems developed by their participants (usually the elites).

The change in production principles is connected with production revolutions. The starting point of such revolutions can be regarded as a convenient and natural point from which the chronology of formation change can be established.

The production revolutions are the following: **1) the Agrarian Revolution** (the 'Neolithic Revolution'); **2) the Industrial Revolution;** **3) the Cybernetic Revolution.** The production revolutions as technological breakthroughs have been discussed for quite a long time. The Industrial Revolution became an object of extensive research already in the 19th century.³ The first ideas on the Neolithic (Agrarian) Revolution appeared in Gordon Childe's works in the 1920s and 1930s, and he developed the theory of this revolution in the 1940s and 1950s (Childe 1948, 1949, 1952). In connection with the Cybernetic Revolution (which started in the 1950s as the Information-Scientific one) the interest in the study of production revolutions significantly increased. Much has been written about each of the three production revolutions (see, *e.g.*, Reed 1977; Harris and Hillman 1989; Cohen 1977; Rindos 1984; Smith 1976; Cowan and Watson 1992; Ingold 1980; Cauvin 2000; Knowles 1937; Dietz 1927; Henderson 1961; Phyllis 1965; Cipolla 1976; Stearns 1993, 1998; Lieberman 1972; Mokyr 1985, 1993, 1999; More 2000; Bernal 1965; Philipson 1962; Benson and Lloyd 1983; Sylvester and Klotz 1983);

² Of course, we do not mean continuous and regular influence; we rather mean the moments of qualitative breakthrough. If after a breakthrough within a more fundamental sphere the other spheres do not catch up with it, the development within the former slows down.

³ *E.g.*, by Arnold Toynbee (1852–1883). See Toynbee 1927 [1884]; 1956 [1884].

however, there is a surprisingly small number of studies concerning these revolutions as recurrent phenomena, each representing an extremely important landmark in the history of humankind. We have developed a theory of production revolutions (Grinin 2007a, 2007b, 2012) within the framework of the overall theory of a world historical process.

The production revolution can be defined as a radical turn in the world productive forces connected with the transition to the new principle of management not only in technologies but in the interrelations of society and nature. The difference of a production revolution from various technical overturns is that it touches not only some separate essential branches but the economy on the whole. And finally, the new trends of management become dominant. Such an overturn involves in the economical circulation some fundamentally new renewable or long inexhaustible resources, and these resources must be widespread enough within most territories; it rises labor productivity and/or land carrying capacity (the yield of useful product per unit of area) by orders of magnitude; this is also expressed in the creation of several orders greater volume of production and the demographic revolution (or the change of the demographic reproduction type).

As a result, the most powerful impetus for qualitative reorganization of the whole social structure is generated. Although the production revolution begins in one or a few places but as it signifies the turn of the *world* productive forces, it represents a long lasting process gradually involving more and more societies and territories. As a result a) the societies where it took place become progressive in the technological, economical, demographical, cultural and often military aspects; b) joining new production system becomes a rule.

Each production revolution has its own cycle. We can speak about three phases, including two innovative phases and between them – a modernization phase of expansion of new production principle, that is a long period of distribution and diffusion of innovations.

Thus, the cycle of each production revolution looks as follows: *the initial innovative phase* (the emergence of a new revolutionizing productive sector) – *the modernization phase* (distribution, synthesis and improvement of new technologies) – *the final innovative phase* (improving the potentials of new technologies up to the mature characteristics). See also Fig. 1.

Each innovative phase of a production revolution represents a major breakthrough in production. During the first innovative phase the new production principle hotbeds are formed; those sectors that concentrate the principally new production elements grow in strength. Then the qualitatively new elements diffuse to more societies and territories during the modernization phase. In those places where the most promising production version has got formed and adequate social conditions have appeared the transition to the second innovative phase of production revolution occurs, which marks the flourishing of the new production principle. Now the underdeveloped societies catch up with the production revolution and become more actively engaged in it. Thus, we confront a certain rhythm of the interchange of qualitative and quantitative aspects. A general scheme of two innovative phases of production revolution within our theory looks as follows:

Agrarian Revolution: the **initial innovative phase** – transition to primitive hoe agriculture and animal husbandry (12,000–9,000 BP); the **final phase** – transition to intensive agriculture (especially to irrigation [5300–3700 BP] or non-irrigation plough one).

Industrial Revolution: the **initial phase** starts in the 15th and 16th centuries with the vigorous development of seafaring and trade, mechanization on the basis of water engine, the deepening division of labor and other processes. The **final phase** is the industrial breakthrough of the 18th century and the first third of the 19th century which is connected with the introduction of various machines and steam energy.

Cybernetic Revolution: its **initial phase**, which we call the **scientific-information epoch**, dates to the 1950–1990s. Breakthroughs occurred in automation, power engineering, synthetic materials production, space technologies and in particular in the development of electronic means of control, communication and information. The **final phase** will begin in the 2030–2040s and it will last until the 2060–2070s. This forthcoming phase can be called the **epoch of controllable systems** because the main point lies in the ability to create systems that could be self-controlled or indirectly controlled either through other systems or by means of point impact and corrections. As a result there will be much more opportunities to influence without direct human interference upon various natural, social and production processes whose control at present is impossible or quite limited. We suppose the final phase of Cybernetic Revolution will originate in a narrow sphere *at the crossing of medicine and biotechnology*, it may start with a drastic increase of opportunities to influence human biological nature. In the last section of the article we present preliminary ideas and prognoses about the main features and dimensions of the forthcoming phase of Cybernetic Revolution, otherwise called the epoch of controllable systems. There is a number of various suppositions concerning changes of that kind, they are dealt with by intellectuals in different fields starting from philosophers to fantasists (see, e.g., Fukuyama 2002; Sterling 2005). However, our prognoses have an advantage over many of them because we base on the scientific theory.

We believe that the production revolution can be regarded as an integral part (the first ‘half’) of the production principle, after which the development of mature relations takes place. Such an approach demonstrates in a rather explicit way the main ‘intrigue’ of the cyclical pattern of historical formations. In their first half we observe mostly the radical production changes, whereas in the second half we deal with especially profound changes of political and social relations, public consciousness and other spheres. Within these periods, on the one hand, political-judicial and sociocultural relations catch up with more developed production forces, and, on the other hand, they create a new level, from which an impulse toward the formation of a new production principle starts.

However, a production principle cycle can be also represented in a classical three-phase fashion: *formation, maturity, and decline*. Yet, in some sense it appears more convenient to represent it in six phases, each pair of which demonstrates an additional rhythm of change of qualitative and quantitative characteristics. Such a cycle looks as follows:

1. The first phase – *the beginning of production revolution and the formation of a new production principle*. The latter emerged in one or a few places, however, in rather undeveloped, incomplete and imperfect forms.

2. The second phase – *the stage of initial modernization*. It is connected with a wider diffusion of new production forms, with reinforcement and vigorous expansion of a new production principle.

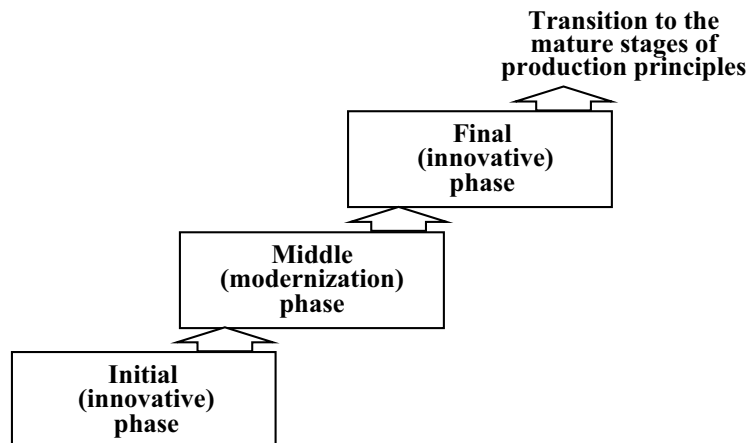
3. The third phase – *the final stage of a production revolution*. The production principle obtains mature characteristics.

4. The fourth phase – *the stage of maturity and expansion of production principle*. It is connected with the diffusion of new technologies to most regions and production branches. The production principle acquires its mature forms and that leads to important changes in social-economic sphere.

5. The fifth phase – *the stage of an absolute dominance of a production principle*. It leads to the intensification of production, the realization of its potential almost to the limit.

6. The sixth phase – *the stage of non-system phenomena or a preparatory phase* (for a transition to a new production principle). Intensification leads to the appearance of non-system elements (for the given production principle) that prepare the formation of a new production principle (when under favorable conditions these elements can form a system, and in some societies a transition to a new production principle can take place, and a new cycle begins).

Fig. 1. Structure of Production Revolutions (phases and its types)



3. The Elaboration of the Periodization and Development of Historical Process

3.1. When does historical process start?

Let us consider now our chronology of the production principles, production revolutions, and their phases. We start from the period about 40,000–50,000 years ago (but to facilitate our calculation we take the date of 40,000 years ago), that is, since the appearance of the first indisputable indications of truly human culture and society.⁴ To understand

⁴ Note that this date is not identical with the modern dating of the emergence of *Homo sapiens sapiens* (100,000–200,000 years ago). Though discoveries of the recent decades have shifted the date of the *Homo sapiens sapiens* formation back in time to 100–200 thousand years ago (see, e.g., Stringer 1990; Bar-Yosef 2002; Bar-Yosef and Vandermeersch 1993; Marks 1993; Pääbo 1995; Gibbons 1997; Holden 1998; Culotta 1999; Kaufman 1999; Lambert 1991; Zhdanko 1999; Klima 2003: 206; White *et al.* 2003; Shea 2007), the landmark of 40,000–50,000 years ago still retains its major significance. This is that time, since which we can definitely speak about the humans of modern cultural type,

the reason for the choice of precisely this landmark one should take into consideration that any periodization must have some conceptual and formal unity at its basis. In particular, we believe that it is possible to speak about social evolution in its proper sense only since the time when social forces became the basic driving forces for the development of human communities. We suppose that the era of anthropogenesis should include not only that long period of time when our apelike ancestors (Ingold 2002: 8) were gradually obtaining an anatomical resemblance to modern human beings (that is approximately till 100–200 thousand years ago), but the subsequent rather long period (that lasted for many thousands of years) when those creatures anatomically similar to us were turning into *Homo sapiens sapiens*, that is becoming people in their intellectual, social, mental and language development. Of course, during this second phase of anthropogenesis the role of social forces in the general balance of driving forces was much larger than it was during the first phase. However, we believe that in general, during the whole process of anthropogenesis the driving forces were primarily biological, and only to a rather small degree were they social. Of course, it was a very long process and one cannot point out a definite moment when a crucial change took place (as most likely in a literal sense there was not such a radical turn). Nevertheless, we believe that after reaching the above-mentioned landmark of 40,000–50,000 years ago the social component of the evolutionary driving forces became dominant.⁵ We also believe that for the same reasons it is not possible to speak about humankind as a set of societies before this time. Thus, the notions serving the basis for our periodization – *formations of historical process* and *production principles* – cannot be applied to the periods prior to 40,000–50,000 years ago. Thus, our periodization starts with the most important production revolution for the humankind; what is more, people themselves are, undoubtedly, part of the productive forces.⁶

3.2. The first formation of historical process. The Hunter-Gatherer production principle

Due to the paucity of information on the first formation it appears reasonable to connect the phases of the hunter-gatherer production principle with the qualitative landmarks of human adaptation to nature and its acquisition. Indeed, during this period community size, tools, economic forms, lifestyles – that is, virtually everything – depended almost exclusively on the natural environment. If we correlate phases with major changes in

in particular, about the presence of developed languages and ‘distinctly human’ culture (Bar-Yosef and Vandermeersch 1993: 94). And though there are suggestions that developed languages appeared well before 40–50 thousand years ago, these suggestions remain rather hypothetical. Most researchers suppose that the dependence on language appeared not earlier than 40,000 years ago (see Holden 1998: 1455), whereas, as Richard Klein maintains, ‘everybody would accept that 40,000 years ago language is everywhere’ (see Holden 1998: 1455). Klein, a paleoanthropologist at Stanford University, has offered a theory which could explain such a gap between the origin of anatomically modern *Homo sapiens* and much later emergence of language and cultural artifacts: the modern mind is the result of a rapid genetic change. He puts the date of change at around 50,000 years ago, pointing out that the rise of cultural artifacts comes after that date, as does the spread of modern humans from Africa (see Zimmer 2003: 41 ff.). So the period 50,000–40,000 years ago was the time the beginning of social evolution in the narrow sense (see below).

⁵ Yet in some certain important points the biological adaptation and anthropological transformation lasted for quite a long time even after this threshold. Yet in certain significant respects the biological adaptation and anthropological transformation continued for quite a long time after this threshold as (see, e.g., Alexeev 1984: 345–346; 1986: 137–145; Yaryghin *et al.* 1999, bk 2: 165).

⁶ Or using the title of Paul Mellars and Chris Stringer’s book such a radical turn can be called ‘The Human Revolution’ (see Mellars and Stringer 1989).

environment, it appears possible to connect them with an absolute chronology on the panhuman scale. This appears especially justified, as according to the proposed theory some part of the natural environment (within a theoretical model) should be included in the productive forces, and the more they are included, the weaker is their technological component (see Grinin 2003, 2009).

The **first** phase may be connected with the ‘Upper Paleolithic’ Revolution (about it see Mellars and Stringer 1989; Marks 1993; Bar-Yosef 2002; Shea 2007) and the formation of social productive forces (however primitive they were at that time). Already for this period more than a hundred types of tools are known (Boriskovskij 1980: 180). The **second** phase (approximately and very conventionally, 30,000–23,000 [20,000] BP) led to the final overcoming of what may be called the residue contradiction of anthropogenesis: between biological and social regulators of human activities. This phase is connected with the wide diffusion of people, the settlement in new places, including peopling of Siberia (Doluhanov 1979: 108) and, possibly, the New World (Zubov 1963: 50; Sergeeva 1983), though the datings here are very scattered (Mochanov 1977: 254; Sergeeva 1983; Berezkin 2007a, 2007b).

The **third** phase lasted till 18,000 – 16,000 BP. This is the period of the maximum spread of glaciers (referred to as the glacial maximum).⁷ And though this was not the first glaciation, this time humans had a sufficient level of productive forces and sociality so that some groups managed to survive and even flourish under those severe conditions. Large changes took place with respect to variety and quantity of tools (Chubarov 1991: 94). This is precisely the time when there occurred a fast change of types of stone tools; for example, in France (Grigoriev 1969: 213), in the Levant (18,000 BP) microliths appeared (Doluhanov 1979: 93). During this phase, as well as the subsequent **fourth** phase – c. 17,000–14,000 (18,000–15,000) BP – the level of adaptation to the changing natural environment significantly increased. In some places that avoided glaciation, intensive gathering appeared (Hall 1986: 201; Harlan 1986: 200).

The **fifth** phase – 14,000–11,000 (15,000–12,000) BP, that is the end of the Paleolithic and the beginning of the Mesolithic (Fainberg 1986: 130) – may be connected with the end of glaciation and climate warming (Yasamanov 1985: 202–204; Koronovskij, Yakushova 1991: 404–406). As a result of this warming and consequent change in the landscape the number of large mammals decreased. That is why the transition to individual hunting was observed (Markov 1979: 51; Childe 1949: 40). Technical means (bows, spear-throwers, traps, nets, harpoons, new types of axes *etc.*) were developed for the support of autonomous reproduction of smaller groups and even individual families (Markov 1979: 51; Prido 1979: 69; Avdusin 1989: 47). Fishing in rivers and lakes was developed and acquired a major importance (Matjushin 1972). The **sixth** phase (c. 12,000–10,000 BP) was also connected with continuing climatic warming, environmental changes culminating in the transition to the Holocene (see, *e.g.*, Hotinskij 1989: 39, 43; Wymer 1982 [and archaeologically – to the Neolithic in connection with considerable progress in stone industries]). This period evidenced a large number of important innovations that, in general, opened the way to the new, craft-agrarian, production principle (see, *e.g.*, Mellaart 1975). The point of peculiar interest are the harvest-gathering peoples who were

⁷ During the last glacial epoch, Würm III. The glacial maximum was observed about 20,000–17,000 BP when temperatures dropped by 5 degrees (Velichko 1989: 13–15).

a potentially more progressive development of the craft-agrarian branch. Such gathering can be very productive (see, *e.g.*, Antonov 1982: 129; Shnirel'man 1989: 295–296; Lips 1956; Lamberg-Karlovsky and Sabloff 1979).

Foretelling, we would like to say a few words in order to explain the quantitative proportions we have set between the periods of hunter-gatherer production principle which are presented below (see Tables 1–4 in Appendix). We have empirically determined certain correlations between the duration of the stages (phases) recurring within each production principle. But to what extent are these proportions relevant to hunter-gatherer production principle, if for the identification of the beginning of its periods we involve some exogenous factors of nature and climate changes?

Indeed, since the climate changes could have occurred at some other moment these proportions are random to some extent. However, in general they are not random at all and are endogenously reasonable, because, first, each described successive cyclic change requires more or less definite period of time. This perfectly explains why the durations of the given processes-stages correlate between each other in certain proportions. Second, though in respect of society the climate changes can be considered as external (and therefore random) factors, the diversity of macroevolutional lines significantly neutralizes such randomness. The idea logically following from the Rule of the necessary diversity is that the wider is the diversity, the higher is the probability of required randomness appearance at the right moment and at the right place. The same way a person staking on more than one event at once secures himself from accidents, and so, figuratively speaking, evolution with greater variability can accomplish a breakthrough if not in one place then in another. That is why, although the proportions in the correlation of hunter-gatherer production principle stages can slightly shift, nevertheless, they will remain practically the same since the unpreparedness to qualitative changes terminates excessive suitable cases, and in the case of delay of such a shift and the appearance of society's high preparedness ('overmaturity') to the changes necessary for the qualitative breakthrough even less suitable situations can be made use of. In particular, let us repeat that along with periods of maximal cooling in some places (which was on the whole random in respect of social macroevolution at certain time), there were highly specialized gatherers in other places, that was just non-random for social evolution. Consequently, the most important breakthroughs could have followed the same pattern already from 18,000 years ago, what probably would have slightly accelerated the beginning of Agrarian Revolution, but, most likely, would have delayed its transition to the second phase.

3.3. The second formation of the historical process. The Craft-Agrarian production principle

Whatever plants were cultivated, the independent invention of agriculture always took place in special natural environments (see, *e.g.*, [Deopik 1977: 15] with respect to South-East Asia). Correspondingly, the development of cereal production could only take place in certain natural and climate environments (Gulyaev 1972: 50–51; Shnirel'man 1989: 273; Mellaart 1982: 128; Harris and Hillman 1989; Masson 1967: 12; Lamberg-Karlovsky and Sabloff 1979). It is supposed that the cultivation of cereals started somewhere in the Near East: in the hills of Palestine (Mellaart 1975, 1982), in the Upper Euphrates area

(Alexeev 1984: 418; Hall 1986: 202), or Egypt (Harlan 1986: 200). The beginning of the Agricultural Revolution is dated within the interval 12,000 to 9,000 BP, though in some cases the traces of the first cultivated plants or domesticated animals' bones are even of a more ancient age of 14–15 thousand years ago. Thus, in a rather conventional way it appears possible to maintain that the **first** phase of the craft-agrarian production principle continued approximately within the interval from 10,500 to 7,500 BP (the 9th – 6th millennia BCE) [as the reader remembers we regard the first phase of the Craft-Agrarian phase as simultaneously the initial innovative phase of the Agrarian revolution]. This period ends with the formation of the West Asian agricultural region, and on the whole one may speak about the formation of the World-System during this period, also including its first cities (about cities see Lamberg-Karlovsky, Sabloff 1979; Masson 1989).

The **second** phase can be conventionally dated to 8000–5000 BP (the 6th – mid-late 4th millennia BCE), that is up to the formation of a unified state in Egypt and the development of a sophisticated irrigation economy in this country. It includes the formation of new agricultural centers, diffusion of domesticated animals from West Asia to other regions. The husbandry of sheep, goats and the first draught animals is developed. The active interchange of achievements (domesticates and their varieties, technologies, *etc.*) is observed. During this period (starting from the 5th millennium BCE) the first copper artifacts and tools appeared in Egypt and Mesopotamia (and a bit later in Syria) (Tylecote 1976: 9). According to Childe the so-called urban revolution took place at that time (Childe 1952: ch. 7; see also Lamberg-Karlovsky and Sabloff 1979; Masson 1989; Oppenheim 1968; see also Adams 1981; Pollock 2001: 45; Bernbeck and Pollock 2005: 17).

During the **third** phase, 5000–3500 (5300–3700) BP, that is 3000–1500 BCE the agriculture emerges; animal husbandry, crafts and trade are differentiated into separate branches of economy [as reader remembers the third phase of Craft-Agrarian phase we regard simultaneously as the final innovative phase of the Agrarian revolution]. Though, according to our theory, crafts did not determine the development of agricultural revolution, it appears necessary to note that, according to Chubarov's data at the end of the second phase and the beginning of the third a very wide diffusion of major innovations (wheel, plough, pottery wheel, harness [yoke], bronze metallurgy, *etc.*) is observed (Chubarov 1991; see also about plough McNeill 1963: 24–25; Kramer 1965; on bronze metallurgy Tylecote 1976: 9). This was the period when the first states, and later empires, appeared in the Near East. Urbanization also went on reaching new regions. This period ends with a major economic, agrotechnical, and craft upsurge in Egypt at the beginning of the New Kingdom (Vinogradov 2000).

The **fourth** phase (3500–2200 [3700–2500] BP, or 1500–200 BCE) is the period when systems of intensive (including non-irrigation plough) agricultures formed in many parts of the world. We observe an unprecedented flourishing of crafts, cities, trade, formation of new civilizations and other processes that indicate that the new production principle began to approach its maturity. This phase lasts till the formation of new gigantic world states from Rome in the West till China in the East, which later led to major changes in productive forces and other social spheres.

The **fifth** phase (the late 3rd century BCE – early 9th century CE) is the period of the most complete development of the productive forces of the craft-agrarian economy, the period

of flourishing and disintegration of the ancient civilizations and formation of civilizations of a new type (Arab, European *etc.*).

The **sixth** phase (from the 9th century till the first third of the 15th century). At its beginning one can see important changes in the production and other spheres in the Arab-Islamic world and China; in particular, in the second half of the 1st century BC the wide international trade network from the East African Coast to South-East Asia and China developed in the Indian Ocean basin (Bentley 1996). Then we observe the beginning of urban and economic growth in Europe, which finally creates first centers of industry and preconditions for industrial revolution (see also Grinin and Korotayev 'The Origin of Globalization' in the present volume).

3.4. The third formation of the historical process. The Industrial production principle

The first phase of the industrial production principle [as the reader remembers it mean respectively the beginning of the initial phase of the Industrial Revolution]) may be dated to the period lasting from the second third of the 15th century to the late 16th century.⁸ This phase includes those types of activities that were both more open to innovation and capable of accumulating more surplus (trade [Mantu 1937: 61–62; Bernal 1965] and colonial activities [Baks 1986], which had become more and more interwoven since the 16th century) came to the forefront. Besides, at that time, primitive industries (but still industries) developed in certain fields. It is during that period when according to Wallerstein (1974, 1987) the capitalist world-economy was formed.

From the late 16th century to the first third of the 18th century there lasted the **second** phase of the new production principle, a period of growth and development of new sectors that had become dominant in some countries (the Netherlands and England).

The **third** phase of the industrial production principle began in the second third of the 18th century in England. As reader remembers it meant the beginning of the final phase of the Industrial Revolution that led to the development of the machine-based industries and the transition to steam energy. Supplanting handwork with machines took place in cotton textile production that developed in England (Mantu 1937; Berlanstein 1992; Mokyr 1993, 1999; Griffin 2010). Watt's steam engine started to be used in the 1760s and 1770s. A new powerful industry – machine production – had developed. The industrial breakthrough was more or less finalized in England in the 1830s. The successes of industrialization were evident in a number of countries by that time and it was also accompanied by significant demographic transformations (Armengaud 1976; Minghinton 1976: 85–89).

The **fourth** phase (from the 1830s to the late 19th century) is the period of the victory of machine production and its powerful diffusion. The **fifth** phase took place in the late 19th century – the early 20th century up to the world economic crisis of the late 1920s–1930s. During that period there occurred huge changes. The chemical industries experienced vigorous development, a breakthrough was observed in steel production, the extensive

⁸ The point of view that, besides the 18th century industrial revolution, there was also an earlier industrial revolution (or even industrial revolutions) is widely accepted in Western science (Bernal 1965; Braudel 1973, 1982, 1985; Hill 1947; Johnson 1955, *etc.*), but until now within Russia it has quite a few advocates. Still it appears that in the last two decades the idea of marking out Early Modern Period (the end of the 15th – 18th centuries) has attracted a number of supporters. However, these scholars do not associate Early Modern Period with earlier industrial revolution.

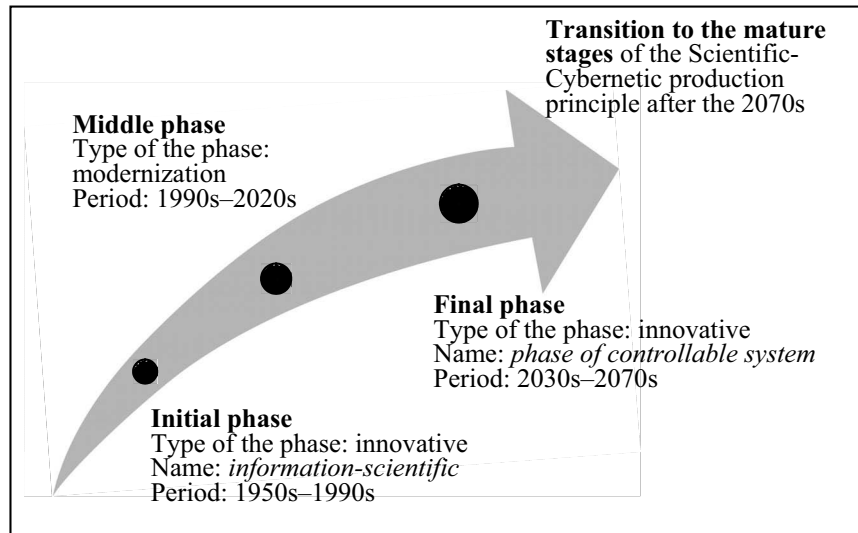
use of electricity (together with oil) gradually began to replace coal. Electrical engines changed both the factories and everyday life. Development of the internal combustion engines led to the wide diffusion of automobiles. The **sixth** phase continued till the mid-20th century. A vigorous intensification of production and the introduction of scientific methods of its organization took place during this period. There was an unprecedented development of standardization and the enlargement of production units. Signs of the forthcoming Information-scientific Revolution became more and more evident.

3.5. The fourth formation of the historical process. The Scientific-Cybernetic production principle and Cybernetic Revolution

The scientific-cybernetic production principle is only at its beginning (see Fig. 2.); only its first phase has been finished and the second phase has just started. Hence, all the calculations of the forthcoming phases' lengths are highly hypothetical. These calculations are presented in Tables 1 and 2 (see Appendix).

The **first** phase of the scientific-cybernetic production principle took place between the 1950s and mid-1990s, when a vigorous development of information technologies and the start of real economic globalization were observed. As the reader should remember, the first phase of production principle corresponds to the initial phase of production revolution. **The production revolution** that began in the 1950s and continues up to the present is sometimes called the 'scientific-technical' revolution (*e.g.*, Benson and Lloyd 1983). However, in any case it would be more appropriate to call it the 'information-scientific' revolution, as it is connected with the transition to scientific methods of production and circulation management. Especially important changes took place in information technologies. In addition, this production revolution had a few other directions: in energy technologies, in synthetic materials production, automation, space exploration, and agriculture. However, its main results are still forthcoming. And as we will show below this revolution can be named the Cybernetic one because the main changes will involve a rapid increase in opportunities to control various processes by means of creating self-regulated autonomous systems or through the impact on the key parameters and elements that are able to launch a necessary process *etc.* Cybernetics is commonly known as a transdisciplinary approach to the study of regulatory systems.

The **second** phase of the Scientific-Cybernetic production principle (= the middle phase of the Cybernetic revolution, see Fig. 2) began in the mid-1990s due to the development and wide diffusion of user-friendly computers, communication technologies, cell phones and so on. It has been going on up to the present.

Fig. 2. Phases of the Cybernetic Revolution

The **third** phase may begin approximately in the 2030s–2040s. It will mean the beginning of the final phase of the Cybernetic revolution that in our view may become the epoch of ‘**controllable system**’, that is, the vast expansion of opportunities to purposefully influence and direct various natural and production processes (see Grinin 2007a, 2012).

For the expected lengths of the **fourth**, **fifth**, and **sixth** phases of the scientific-cybernetic production principle see Table 1 in Appendix. In general, it may end by the end of this century, or by the beginning of the next one.

Instead of a Conclusion. Some Ideas about Cybernetic Revolution

Now let us make a predictive analysis of major changes that the Cybernetic Revolution has already yielded and will bring about. Our forecast is based on the revealed developmental patterns at the final and initial stages of the previous production revolutions and already visible trends of the Cybernetic Revolution.

We suppose that the leading trends of the epoch of controllable systems will be: biotechnologies, human medicine and to a lesser extent nanotechnologies.

The most important characteristics of the Cybernetic Revolution are the following:

1. A qualitative growth of control over systems and processes of various kinds, scales, complexity, and levels. It means an ability to create sustained systems, which can self-regulate without human interference; as well as such systems' capacity to autonomous functioning and adaptation to changes.

Within this leading trend there exist and will appear numerous variants of providing such control and self-regulation, including the influence on the key elements of systems and process steps; a controllable maintenance of the weakest elements of the system by means of resources of the system itself or with minimal interference; a prognosis and prevention of possible failures, probable regeneration of particular, most vulnerable elements *etc.*

2. The determination of optimal operations within particular objectives and tasks (as a logic consequence of the first characteristics).

3. The creation of complex synthesized systems (which can be termed the *transcybernetic* ones) resulting from the development of self-regulation. One can speak about a large diversity of synthesis of principles and materials of different levels, as well as of an active development of systems comprising principles and materials of different levels of systems: inanimate, animate and technical, *etc.*

In particular, there will start a process of creation of biotic (biotechnical) systems (including human organism) which will involve to a different degree principles and materials of animate and inanimate nature functioning on the basis both biological and technological principles, as well as on the more complex biosocial and technological ones.

The group of attributes of task-aware adaptation of materials and system:

4. Individualization as a guideline in the development of technologies and business strategies. Individualization manifests in the development of technologies of mass short-run or individually-tailored production with account of a consumer's particular demands as well as in the creation of goods that adapt to the consumer's desire (given him or her an opportunity to adjust them rather significantly to one's own demands). In the future, the opportunities will grow to choose an individual strategy as the most optimal (here one can also trace the connection with Item 2), in particular to solve certain tasks, to meet the individual's goals, for particular farming lands *etc.* With development of medicine, the orientation to individual peculiarities of human organisms and people's desires will become much more important than in modern economy.

Miniaturization trend; that is a constant decreasing of the size of particles, mechanisms, electronic devices *etc.*

6. The resource and energy saving in any sphere of activity also through the miniaturization of systems, localization of domain of impact *etc.* (here the nanotechnologies come to the fore).

7. The development of the predetermined but previously non-existent properties in chemical, biological and bionic (techno-biological) systems.

Shortly we will discuss some of these criteria.

We suppose that all trends of the Cybernetic Revolution will be tightly interconnected and support each other.

Biotechnology

Biotechnology is one of the most rapidly developing branches of industry. By the 2020s, the global market of biotechnological industries is expected to reach 700 billion dollars. Biotechnology is tightly connected with food, pharmaceutical⁹ and biochemical industries.

In biotechnology production we can see the trends that lead to the formation of self-regulatory systems. This will affect the production processes, which will become more efficient and cost effective. Nowadays, the self-regulation is well traced at the genome level. In gene construction the scientists insert, alongside with a useful gene, special

⁹ For example, the biotechnological way of medicine production gives a huge number of innovate drugs every year (Woollett 2012).

controlling genes-promoters that launch a necessary gene only under certain conditions. In future this technology will develop. A number of gene constructions will be inserted in an organism at once. This will provide flexible response to different changing factors, such as weeds, vermin, drought and others. The genetic engineering allows manipulating genes and expanding an organism's biological properties for specified purposes. Due to huge internet databases and automatization of manipulations with DNA, even today one can select a necessary gene for a plant or an animal and insert it in the organism. Genetic modification can already change a whole population, for example, the mosquitoes carrying the gene of infertility are being introduced into the wild population, spreading the gene, when crossed, and thus reducing the number of insects (Tkachuk *et al.* 2011).

The number of genetically modified organisms grows every year. As a result of completed cybernetic revolution the genetic engineering will be individualized for the sake of the slightest peculiarities. In other words, producers will be able to create a plant or a domestic animal variety in small home laboratories according to their requirements for particular climate and regions. Cloning is an important part of individualization. Nowadays it is well worked-out and employed for plants. With respect to the animal organisms cloning is not that efficient. It is highly improbable that human cloning will develop. One can find much more opportunities for therapeutic cloning when an organism's development is stopped in order to get the stem cells and use them for growing the necessary organs and tissues. In the future this can become an important source of tissues and organs in human medicine.

The biotechnological industry provides a *significant production cost saving*.

Very promising are biofuels, which today accounts for 10 % of the total energy output. Its use may increase by more than 10 times by 2035 (Kopetz 2013). Biotechnology allows producing new eco-friendly materials (*e.g.*, bioplastic). The range of products made from bioplastics is already very wide. In the period from 2000 to 2008, global consumption of biodegradable plastics based on starch, sugar and cellulose increased by 600 % (Ceresana Research 2011).

We will see a very broad invasion of biotechnology in our lives: a power supply system, a variety of materials, medicine, *etc.* We think that in the future it is the biotechnologies that can help developing countries to make a qualitative breakthrough, get cheaper energy, establish low-cost production of pharmaceuticals and nutritional supplements, develop agriculture and increase the standard of life.

Medicine

In the second half of the 20th century, the significance of health care as an economic sector has sharply increased. We suppose that during the Cybernetic Revolution its role will radically grow. The most actively developing branches of medicine are: pharmaceuticals; aesthetic medicine; fight against cureless diseases; implantation; reproductive medicine and gene therapy.

Medicine becomes more and more *individualized*. This is especially obvious in the selection of an individual treatment program for every person by computers and in the field of aesthetic medicine. The wealthier is a society, the larger part of the income people spend on health and beauty. In the nearest decades one can suppose an explosive growth of all types of aesthetic medicine. Individualization will also manifest at the level of gene

therapy by means of which some serious genetic diseases are already treated. In the future every patient will be treated according to his genetic record and the defected genes will be repaired. Bionics will allow expanding human individual properties. The equipment has already been worked out that helps paralyzed people speak, write and even work with computers. One of the criteria for assessing the development of medicine is the production of medicines, their number is steadily increasing. The developed countries invest heavily in the development of drugs (Baker 2013). Pharmaceuticals will become more individualized. Drug production has been steadily increasing. In the future, patients will be prescribed drugs according to the individual characteristics of their organism and transportation of drugs in the body will become so accurate that will require miniscule doses. An important direction of the individual treatment is creation of the artificial immune system (Woollett 2012; Dickert, Hayden and Halikias 2001). One of the promising trends in medicine is the slowing aging at the molecular level (Slagboom, Droog, and Boomsma 1994). Medicine has a direct impact on life expectancy, which in the future may achieve 90–100 years.

Self-regulation in medicine is expressed at different levels. For example, many processes of self-regulation are provided by special biochips implanted in the organs which make it possible to control vital processes. Thus, the treatment can proceed even without human interference. In 2011, the first pancreas transplantation was fully performed by the surgical robot Da Vinci. The surgery required only a seven centimeter incision and three small holes in the abdominal wall. In future such surgeries will become common. Thus, the job of a doctor in its present sense can disappear at all.

The struggle with incurable diseases is the most important branch of medicine. According to World Health Organization in the developed countries the most frequent diseases that lead to death are heart diseases (12.8 % mortality), strokes, and other cerebrovascular diseases (10.8 %), AIDS (3.1 %), cancer (2.4 %), diabetes (2.2 %) and others (WHO 2011). In the future many incurable diseases will respond to treatment. Cancer control progress is associated with early diagnosis and increasing recovery rates. There appear some ideas how to outwit cancer (Marx 2013). However, it is very likely that by the 2030s cancer still will not be defeated. Surely this victory itself can be a powerful impetus for a general breakthrough in medicine.

Energy and resource saving. The most precise diagnostic methods will give an opportunity to define the required concentrations and forms of medicines, thus reducing the patient's expenses and cheapening the treatment. And nanotechnologies will allow transporting the necessary active substances to the sick cells thus minimizing side effects.

Nanotechnology

Nanotechnology is the manipulation with matter on an atomic and molecular scale. Nanotechnology works with materials, devices, and other structures with at least one dimension sized from 1 to 100 nanometres.

Since ancient times the humankind has used nanomaterials, for example, to produce paints, iron and steel.

Nanotechnologies are among the most actively developing economic sectors. Today nanotechnology is a multi-million dollar industry. The sales achieve nearly 20 billion dollars and by 2017 they will probably grow to 49 billion (BCC Research 2012). Current nanotechnologies are used practically everywhere: in medicine, heavy industry,

electronics, and chemical industry *etc.* The fastest economically developing sectors are biomedical, optoelectronics and alternative energy. Despite the substantial progress of nanotechnology in electronics and other industries, a real breakthrough of nanotechnology is likely to happen first in medicine, which will give impetus to the development in other areas. One lays great hopes on nanotechnologies in the sphere of defeating cancer.

Self-regulation in nanotechnologies. A close connection between nanotechnologies and increasing self-regulation of systems is due to the fact that nanotechnology itself is based on the aspiration to make molecules and atoms become ordered in a certain spatial and structural pattern, that is the idea to harness the self-regulatory processes of matter. Many nanotechnological systems are capable *to autonomous control*. One can mention as an example the self-cleaning mechanism of the car glass treated with special polish. The self-cleaning mechanism is based on the so called lotus effect. The surface is modified in such a way that a water drop slips down taking dirt with itself. So for this car glass even some rain water is enough to make it clean.

Individualization in nanotechnologies can be traced in the connection with medicine at the level of biochips created on the biotechnological basis. For example biosensors will be able to monitor the spread of a virus in blood in an online mode (Cavalcanti *et al.* 2008). It is supposed that nanotechnologies can help to change the tilling land technique by means of nanosensors, nanopesticides and a system of centralized water purification. Individualization will be connected with technical devices. Future models of mobile phones, can be able to change the form, size or color according to the individual preferences.

The resource and energy saving. Many nanotechnologies aim at reducing energy consumption as well as at creating alternative energy sources. For example, 'clever glass' for buildings that can react to the changing temperature and light with the respective change in transparency and thermal conductance. This is tightly connected with self-regulation in nanotechnologies. A wide usage of electronic paper can save forests on Earth.

* * *

Finally, one should note that the forthcoming changes may bring about serious ethic issues. The radical changes in human organism may seriously damage such vital aspects as family, gender, and outlook on life. That is why the forecasts of the development of the Cybernetic Revolution are important. They can help to create beforehand some optimal social, legal and other means so that those changes will not surprise and their negative consequences could be minimized. On the whole, the revolution of controllable systems will also involve social systems, so we should work out certain mechanisms of social forecasts and prevention, which will be introduced at least before the mass diffusion of dangerous innovations or forestall their influence.

References

- Adams, R. M. 1981. *Heartland of Cities*. Chicago, IL: University of Chicago Press.
 Alexeev, V. P. 1984. *Formation of Mankind*. Moscow: Politizdat. *In Russian*.
 Alexeev, V. P. 1986. *Ethnogenesis*. Moscow: Vysshaya shkola. *In Russian*.

- Antonov, E. V. 1982.** *Comments on J. Mellaart's book: Ancient Civilizations of the Middle East*. Moscow: Nauka. *In Russian*.
- Armengaud, A. 1976.** Population in Europe 1700–1914. In Cipolla 1976: 22–76.
- Avdusin, D. A. 1989.** *Foundations of Archaeology*. Moscow: Vysshaya shkola. *In Russian*.
- Baker, M. 2013.** Europe Bets on Drug Discovery. *Nature* 494: 20.
- Baks, K. 1986.** *Mineral Wealth of the Earth*. Moscow: Progress. *In Russian*.
- Bar-Yosef, O. 2002.** The Upper Paleolithic Revolution. *Annual Review of Anthropology* 31: 363–393.
- Bar-Yosef, O., and Vandermeersch, B. 1993.** Modern Humans in the Levant. *Scientific American* (April): 94–100.
- BCC Research. 2012.** *Nanotechnology: A Realistic Market Assessment*. URL: <http://www.bccresearch.com/report/nanotechnology-market-applications-products-nan031e.html>.
- Benson, I., and Lloyd, J. 1983.** *New Technology and Industrial Change: The Impact of the Scientific-Technical Revolution on Labour and Industry*. London: Kogan Pages.
- Bentley, J. H. 1996.** Cross-Cultural Interaction and Periodization in World History. *American Historical Review* (June): 749–770.
- Berezkin, Yu. E. 2007a.** *The Myths Occupy America. The Areal Distribution of Folk Motives and Early Migrations to the New World*. Moscow: OGI. *In Russian*.
- Berezkin, Yu. E. 2007b.** On the Structure of History: Time and Spatial Constituents. In Turchin, P. V., Grinin, L. E., Malkov, S. Yu., and Korotayev, A. V. (eds.), *History and Mathematics: Conceptual Space and the Trend for Search* (pp. 88–98). Moscow: LKI/URSS. *In Russian*.
- Berlanstein, L. R. 1992. (Ed.).** *The Industrial Revolution and Work in Nineteenth-Century Europe*. London – New York: Routledge.
- Bernal, J. D. 1965.** *Science in History*. 3rd ed. New York: Hawthorn Books.
- Bernbeck, R., and Pollock, S. 2005.** A Cultural-Historical Framework. In Pollock, S., and Bernbeck, R. (eds.), *Archaeologies of the Middle East: Critical Perspectives* (pp. 11–40). Oxford: Blackwell.
- Boriskovskij, P. I. 1980.** *Ancient History of Mankind*. Moscow: Nauka. *In Russian*.
- Braudel, F. 1973.** *Capitalism and Material Life, 1400–1800*. New York: Harper and Row.
- Braudel, F. 1982.**
- Childe, V. G. 1952.** *New Light on the Most Ancient East*. 4th ed. London: Routledge & Paul.
- Chubarov, V. V. 1991.** Middle East Locomotive: Grow Rates of Technic and Technology Development in the Ancient World. In Korotayev, A. V., and Chubarov, V. V. (eds), *Archaic Society: Main Problems of Development Sociology*. Moscow: Institute of USSR history, USSR Academy of Science. *In Russian*.
- Chuchin-Rusov, A. E. 2002.** *United Field of World Culture. Kijli-concept*. Vol. I. *The Theory of United Field*. Moscow: Progress – Traditsia. *In Russian*.
- Cipolla, C. M. 1976. (Ed.).** *The Industrial Revolution. 1700–1914*. London: Harvester.
- Cohen, M. N. 1977.** *The Food Crisis in Prehistory. Overpopulation and the Origins of Agriculture*. New Haven – London: Yale University Press.

- Cowan, S. W., and Watson, P. J. 1992. (Eds.).** *The Origins of Agriculture*. Washington – London: Smithsonian Institution Press.
- Culotta, E. 1999.** A New Human Ancestor? *Science* 284: 572–573.
- Deopik, D. V. 1977.** *South-East Asia in the World History*. Moscow: Nauka. *In Russian*.
- Dickert, F. L., Hayden, O., and Halikias, K. P. 2001.** Synthetic Receptors as Sensor Coatings for Molecules and Living Cells. *Analyst* 126: 766–771.
- Dietz, F. 1927.** *The Industrial Revolution*. New York: Holt.
- Doluhanov, P. M. 1979.** *Geography of the Stone Age*. Moscow: Nauka. *In Russian*.
- Fainberg, L. A. 1986.** Early Pristine Community of Hunters, Gatherers, Fishermen. In Bromley, Yu. V. (ed.), *History of the Pristine Society. The Epoch of Pristine Patrimonial Community* (pp. 130–235). Moscow: Nauka. *In Russian*.
- Fukuyama, F. 2002.** *Our Posthuman Future: Consequences of the Biotechnology Revolution*. New York: Picador.
- Geyer, M., and Bright, C. 1995.** World History in Global Age. *The American Historical Review* 100(4): 1034–1060.
- Ghosh, O. K. 1964.** Some Theories of Universal History. *Comparative Studies in Society and History* 7(1): 1–20.
- Gibbons, A. Y. 1997.** Chromosome Shows that Adam Was an African. *Science* 278: 804–805.
- Griffin, E. 2010.** *Short History of the British Industrial Revolution*. New York: Palgrave Macmillan.
- Grigoriev, G. P. 1969.** The Pristine Society and its Culture in the Mousterian and the Beginning of Late Paleolithic. In Gerasimov, I. P. (ed.), *Nature and Development of the Pristine Society* (pp. 196–215). Moscow: Nauka. *In Russian*.
- Grinin, L. E. 2003.** *Productive Forces and Historical Process*. Volgograd: Uchitel. *In Russian*.
- Grinin, L. E. 2007a.** Production Revolutions and Periodization of History: A Comparative and Theoretic-Mathematical Approach. *Social Evolution & History* 6(2): 75–120.
- Grinin, L. E. 2007b.** Production Revolutions and the Periodization of History. *Herald of the Russian Academy of Sciences* 77(2): 150–156.
- Grinin, L. E. 2009.** *State and Historical Process. The Political Cut of Historical Process*. 2nd ed. Moscow: URSS. *In Russian*.
- Grinin, L. E. 2012.** *Macrohistory and Globalization*. Volgograd: Uchitel.
- Grinin, L. E. 2013.** The Dynamics of Kondratieff Waves in the Light of the Production Revolutions Theory. In Grinin, L. E., Korotayev, A. V., and Malkov, S. Yu. (eds.), *Kondratieff Waves: The Spectrum of Ideas* (pp. 31–83). Volgograd: Uchitel Publishing House. *In Russian*.
- Grinin, L. E., Herrmann, P., Korotayev, A. V., and Tausch, A. 2010. (Eds.).** *History & Mathematics: Processes and Models of Global Dynamics*. Volgograd: Uchitel Publishing House.
- Grinin, L. E., Korotayev, A. V., and Malkov, S. Yu. 2010.** A Mathematical Model of Juglar Cycles and the Current Global Crisis. In Grinin, L., Herrmann, P., Korotayev, A., and Tausch, A. (eds.), *History & Mathematics: Processes and Models of Global Dynamics* (pp. 138–187). Volgograd: Uchitel.

- Grinin, L. E., de Munck, V. C., and Korotayev, A. V. 2006. (Eds.).** *History & Mathematics: Analyzing and Modeling Global Development*. Moscow: KomKniga.
- Guliaev, V. I. 1972.** *Ancient Civilizations of Mesoamerica*. Moscow: Nauka. In Russian.
- Hall, F. 1986.** The Origin and Development of Agriculture. In Masson, V. M. (ed.), *Ancient Civilizations of the Orient* (pp. 201–204). Tashkent: FAN. In Russian.
- Harlan, D. R. 1986.** Resource Base of Major Vegetable Cultures of Plateau of Iran and Neighbouring Regions. In Masson, V. M. (ed.), *Ancient Civilizations of the Orient* (pp. 199–201). Tashkent: FAN. In Russian.
- Harris, D., and Hillman, G. 1989.** An Evolutionary Continuum of People – Plant Interaction. *Foraging and Farming. The Evolution of Plant Exploitation* (pp. 11–27). London: Unwin Hyman.
- Henderson, W. O. 1961.** *The Industrial Revolution on the Continent: Germany, France, Russia, 1800–1914*. [London]: F. Cass.
- Hill, K. 1947.** *The English Revolution*. Moscow: Inostrannaya literatura. In Russian.
- Holden, C. 1998.** No Last Word on Language Origins. *Science* 282: 1455–1458.
- Hotinskij, N. A. 1989.** The Landscape and Climatic Changes in the Late Glaciation Age on the USSR Territory. In Velichko, A. A., Gurtovaya, Ye. Ye., and Faustova, M. A. (eds.), *Paleoclimate and Glaciation in the Pleistocene* (pp. 39–46). Moscow: Nauka. In Russian.
- Ingold, T. 1980.** *Hunters, Pastoralists, and Ranchers: Reindeer Economies and Their Transformations*. Cambridge, UK: Cambridge University Press.
- Ingold, T. 2002.** On the Distinction between Evolution and History. *Social Evolution & History* 1(1): 5–24.
- Johnson, A. H. 1955.** *Europe in the Sixteenth Century, 1494–1598*. London: Rivingtons.
- Kapitza, S. P. 2004.** On the Acceleration of Historical Time. *Novaya i noveishaya istoria* 6: 3–16. In Russian.
- Kapitza, S. P. 2006.** On the Acceleration of Historical Time. In Grinin, L. E., Korotayev, A. V., and Malkov, S. Yu. (eds.), *History and Mathematics: The Problems of Periodization of Historical Macroprocesses* (pp. 12–30). Moscow: KomKniga.
- Kapitza, S. P., Kurdjumov, S. P., and Malinetskij, G. G. 1997.** *Complexity Studies and Future Forecasts*. Moscow: Nauka. In Russian.
- Kaufman, D. 1999.** *Archeological Perspectives on the Origins of Modern Humans. A View from Levant*. Westport, CT: Bergin & Garvey.
- Klima, B. 2003.** The Period of Homo Sapiens of the Modern Type before Starting Food Production (the Productive Economy). In *History of the Humankind*. Vol. 1. *The Premordial Time and Beginnings of Civilizations* (pp. 198–207). Moscow: UNESCO. In Russian.
- Knowles, L. C. A. 1937.** *The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century*. London: Routledge; New York: Dutton.
- Kopetz, H. 2013.** Renewable Resources: Build a Biomass Energy Market. *Nature* 494(7435): 29–31. doi: 10.1038/494029a.
- Koronovskij, N. V., and Yakushova, A. F. 1991.** *The Fundamentals of Geology*. Moscow: Vysshaya Shkola. In Russian.
- Korotayev, A. V., and Grinin, L. E. 2012.** Kondratieff Waves in the World System Perspective. In Grinin, L. E., Devezas, T. C., and Korotayev, A. V. (eds.), *Kondratieff Waves. Dimensions and Prospects at the Dawn of the 21st Century. Yearbook* (pp. 23–64). Volgograd: Uchitel.

- Kramer, S. N. 1965.** *History Starts in Shumer*. Moscow: Nauka. *In Russian*.
- Lamberg-Karlovsky, C. C., and Sabloff, J. A. 1979.** *Ancient Civilizations. The Near East and Mesoamerica*. Menlo Park: Benjamin/Cummings Publishing.
- Lambert, D. 1991.** *The Prehistoric Man. A Cambridge Guide*. Leningrad: Nedra. *In Russian*.
- Lieberman, S. 1972. (Ed.).** *Europe and the Industrial Revolution*. Cambridge, MA: Schenkman.
- Lips, J. E. 1956.** *The Origin of Things*. New York: Fawcett.
- Manning, P. 1996.** The Problem of Interaction of World History. *The American Historical Review* 101(3): 771–782.
- Mantu, P. 1937.** *The Industrial Revolution of the 18th Century in Britain*. Moscow: SotsEgIz. *In Russian*.
- Markov, G. Ye. 1979.** *History of Economy and Material Culture in Primitive Communal and Early Class Society*. Moscow: MSU. *In Russian*.
- Marks, A. E. 1993.** The Early Upper Paleolithic: The View from the Levant. In Knecht, H., Pike-Tay, A., and White, R. (eds.), *Before Lascaux: The Complete Record of the Early Upper Paleolithic* (pp. 5–22). Boca Raton: CRC Press.
- Marx, V. 2013.** Tracking Metastasis and Tricking Cancer. *Nature* 494: 131–136. URL: <http://www.nature.com/nature/journal/v494/n7435/full/494131a.html>.
- Masson, V. M. 1967.** The Pristine Agriculture. In Blavatsky, V. D., and Nikitin, A. V. (eds.), *The Emergence and Development of Agriculture* (pp. 5–32). Moscow: Nauka. *In Russian*.
- Masson, V. M. 1989.** *The First Civilizations*. Leningrad: Nauka. *In Russian*.
- Matjushin, G. N. 1972.** *At the Cradle of History*. Moscow: Prosveschenie. *In Russian*.
- McNeill, W. H. 1963.** *The Rise of the West; A History of the Human Community*. Chicago, IL: University of Chicago Press.
- Mellaart, J. 1975.** *The Neolithic of the Near East*. London: Thames and Hudson.
- Mellaart, J. 1982.** The Most Ancient Civilizations of the Near East. Moscow: Nauka. *In Russian*.
- Mellars, P., and Stringer, C. 1989. (Eds.).** *The Human Revolution: Behavioural and Biological Perspectives on the Origins of Modern Humans*. Princeton, NJ: Princeton University Press.
- Minghinton, W. 1976.** Patterns of Demand, 1750–1914. In Cipolla 1976: 77–186.
- Mochanov, Yu. L. 1977.** *The Most Ancient Periods of the Human Settlement of the North-Eastern Asia*. Novosibirsk: Nauka. *In Russian*.
- Mokyr, J. 1985.** *The Economics of the Industrial Revolution*. London: George Allen & Unwin.
- Mokyr, J. 1993. (Ed.).** *The British Industrial Revolution: An Economic Perspective*. Boulder, CO: Westview Press.
- Mokyr, J. 1999.** *The British Industrial Revolution: An Economic Perspective*. 2nd ed. Boulder, CO: Westview Press.
- More, C. 2000.** *Understanding the Industrial Revolution*. London: Routledge.
- Oppenheim, L. A. 1968.** *Ancient Mesopotamia. Portrait of a Dead Civilization*. Chicago – London: The University of Chicago Press.

- Pääbo, S. 1995.** The Y-Chromosome and the Origin of All of Us (Men). *Science* 268: 1141–1142.
- Philipson, M. 1962. (Ed.).** *Automation: Implications for the Future*. New York: Vintage.
- Phyllis, D. 1965.** *The First Industrial Revolution*. Cambridge: University Press.
- Pollock, S. 2001.** *Ancient Mesopotamia*. Cambridge: Cambridge University Press.
- Pomper, Ph. 1995.** World History and its Critics. *History and Theory* 34(2): 1–7.
- Prido, T. 1979.** *The Cro-Magnon Man*. Moscow: Mir. *In Russian*.
- Reed, Ch. A. 1977. (Ed.).** *Origins of Agriculture*. The Hague: Mouton.
- Rickert, H. 1911.** *Die Philosophie des Lebens*. Tübingen: Mohr.
- Rindos, D. 1984.** *The Origins of Agriculture: An Evolutionary Perspective*. Orlando, CA: Academic Press.
- Sergeeva, V. G. 1983.** The Issues of Occupation of America and Transcontinental Contacts in the Works of Juan Comas. In Bromley, Yu. V. (ed.), *The Ways of Development of Foreign Ethnology* (pp. 138–151). Moscow: Nauka. *In Russian*.
- Shea, J. J. 2007.** Behavioral Differences between Middle and Upper Paleolithic Homo Sapiens in the East Mediterranean Levant: The Role of Intraspecific Competition and Dispersal from Africa. *Journal of Anthropological Research* 63: 449–488.
- Shnirel'man, V. A. 1989.** *The Emergence of the Productive Economy*. Moscow: Nauka. *In Russian*.
- Slagboom, P. E. S., Droog, S., and Boomsma, D. I. 1994.** Genetic Determination of Telomere Size in Humans: A Twin Study of Three Age Groups. *American Journal of Human Genetics* 55: 876–882.
- Smith, Ph. E. L. 1976.** *Food Production and its Consequences*. Menlo Park, etc.: Cumming Publishing Company.
- Snooks, G. D. 1996.** *The Dynamic Society. Exploring the Sources of Global Change*. London – New York: Routledge.
- Snooks, G. D. 1998.** *The Laws of History*. London – New York: Routledge.
- Snooks, G. D. 2002.** Uncovering the Laws of Global History. *Social Evolution & History* 4(1): 25–53.
- Stearns, P. N. 1993.** Interpreting the Industrial Revolution. In Adams, M. (ed.), *Islamic and European Expansion. The Forging of a Global Order* (pp. 199–242). Philadelphia, PA: Temple University Press.
- Stearns, P. N. 1998. (Ed.).** *The Industrial Revolution in the World History*. 2nd ed. Boulder, CO: Westview.
- Sterling, B. 2005.** *Future has Already Started. What is Awaiting for Us in the 21st Century?* Ekaterinburg: U-Faktoria. *In Russian*.
- Stringer, C. B. 1990.** The Emergence of Modern Humans. *Scientific American* (December): 68–74.
- Sylvester, E., and Klotz, L. C. 1983.** *The Gene Age: Genetic Engineering and the Next Industrial Revolution*. New York: Scribner.

- Tkachuk, A. P., Kim, M. V., Savitsky, V. Yu., and Savitsky, M. Yu. 2011.** The Prospects of Using Transgenic Insects in Biocontrol Programs. *Journal of General Biology* 72(2): 93–110. *In Russian.*
- Toynbee, A. 1927 [1884].** *Lectures on the Industrial Revolution of the Eighteenth Century in England: Popular Addresses, Notes, and Other Fragments.* London: Rivingtons.
- Toynbee, A. 1956 [1884].** *The Industrial Revolution.* Boston MA: Beacon Press.
- Tylecote, R. F. 1976.** *A History of Metallurgy.* London: The Metal Society.
- Turchin, P., Grinin, L. E., de Munck, V. C., and Korotayev, A. V. 2006. (Eds.).** *History & Mathematics: Historical Dynamics and Development of Complex Societies.* Moscow: KomKniga.
- Velichko, A. A. 1989.** The Correlation of the Climatic Changes in High and Low Latitudes of the Earth in Late Pleistocene and Holocene. In Velichko, A. A., and Gurtovaya, E. E. (eds.), *Paleoclimates and Glaciations in Pleistocene* (pp. 5–19). Moscow: Nauka. *In Russian.*
- Vinogradov, I. V. 2000.** New Kingdom in Egypt and Late Egypt. In Yakobson, V. A. (ed.), *History of the East. Vol. 1. The East in Ancient Times* (pp. 370–432). Moscow: Vostochnaya literatura. *In Russian.*
- Wallerstein, I. 1974, 1980, 1988.** *The Modern World-System.* 3 vols. New York: Academic Press.
- Wallerstein, I. 1987.** *World-Systems Analysis. Social Theory Today.* Cambridge: Polity Press.
- White, T. D., Asfaw, B., DeGusta, D., Gillbert, H., Richards, G. D., Suwa, G., and Howell, F. C. 2003.** Pleistocene *Homo sapiens* from Middle Awash, Ethiopia. *Nature* 423: 742–747.
- WHO 2011.** The 10 Leading Causes of Death by Broad Income Group (2008). *Fact sheet* 310. URL: <http://www.who.int/mediacentre/factsheets/fs310/en/index.html>
- Woollett, G. R. 2012.** Innovation in Biotechnology: Current and Future States. *Clinical pharmacology and Therapeutics* 91(1): 17–20.
- Wymer, J. 1982.** *The Paleolithic Age.* London – Sydney: Croom Helm.
- Yaryghin, V. N., Vasilyeva, V. I., Volkov, I. N., and Sinelschikova, V. V. 1999.** *Biology.* Moscow: Vysshaya Shkola. *In Russian.*
- Yasamanov, N. A. 1985.** *Ancient Climates of the Earth.* Leningrad: Gidrometeoizdat. *In Russian.*
- Zhdanko, A. V. 1999.** Letter to Editors. Notes about Primitive History (Contemporary Data of Paleoanthropology and Paleoarchaeology Concerning the Origin of Homo Sapiens). *Filosofiya i obschestvo* (5): 175–177. *In Russian.*
- Zimmer, C. 2003.** Great Mysteries of Human Evolution. *Discover* 24(9): 34–44.
- Zubov, A. A. 1963.** *A Human Being Starts to Settle his Planet.* Moscow: Geografia. *In Russian.*

APPENDIX**Mathematical Interpretation of Historical Process**

With regard to social disciplines, a question continually arises: are mathematical methods suitable for analyzing historical and social processes? Obviously, we should not absolutize the differences between fields of knowledge, but the division of sciences into two opposite types, made by W. Windelband and H. Rickert, is still valid. As is known, they singled out sciences involving *nomothetic methods*, *i.e.*, looking for general laws and generalizing phenomena, and those applying *idiographic methods*, *i.e.*, describing individual and unique events and objects. Rickert attributed history to the second type. In his opinion, history always aims at picturing an isolated and more or less wide course of development in all its uniqueness and individuality (Rickert 1911: 219).

However, since the number of objects and problems investigated and solved by precise methods is growing rapidly, we may assume that, with time, historical knowledge will also be analyzed by some branches of mathematics.

Thus, the problem remains debatable. Nevertheless, rational attempts to use mathematical methods in theoretical or applied trends of the humanities are on the whole positive. Yet, they 'dry up' the soul of history to some extent, but at the same time, they promote self-discipline and self-testing of thoughts, ideas, and concepts of many specialists in the humanities, who, unfortunately, often do not bother to find any methods of testing their conclusions. In addition, this could somewhat reduce the polysemy of the scientific language of the humanities. R. Carnap in his *Philosophical Foundations of Physics* (Carnap 1966) wrote that, even in physics, the use of terms from ordinary language (as the notion of *law*) for an accurate and nonambiguous expression of ideas complicates proper understanding. However, physicists, as well as other representatives of natural sciences, long ago agreed on fundamentals (such as units of measurement and symbols). As for the humanities, which analyze social phenomena, the same objects sometimes have up to ten meanings and hundreds of definitions. Perhaps the very necessity to formalize the humanities will lead at last to certain conventions and the ordering of terminology. Nevertheless, even today the use of mathematics may help in searching for a common field of research.

Can we after all construct any mathematical models for such a complex subject of inquiry as the historical process? The answer to this question is obvious: yes, it is quite possible when examining countable objects.

However? when we speak about some global general theories, like macroperiodization of the world historical process, any figures, cycles, diagrams and coefficients, of course, cannot prove too much by themselves. Especially, if the respective analysis includes ancient periods for which all the figures are likely to be too much approximate and unreliable. Thus, for general theories covering immense time spans and space, the main proves are a good empirical basis, logics, internal consistency and productivity of theoretical constructions; that is, a theory's ability to explain the facts better than other theories do. On the other hand, any theory is better when it is supported by more arguments. Mathematical proofs can be rather convincing (when they are relevant, of course). This is especially relevant with respect to those aspects that are more liable to mathematical analysis, for example, those connected with demography.

In this paper we have chosen such an aspect that is liable to mathematical analysis and quite suitable for it. This is the *temporal* aspect of history. Its suitability for mathematical analysis is connected with the following: though it is quite possible to speak about the tendency of historical time toward acceleration, the astronomic time remains the same. Thus, within this study we have a sort of common denominator that helps to understand how the ‘numerator’ changes. Hence, we believe that for the analysis of periodization of history the application of mathematical methods is not only possible, but it is also rather productive.

Now we can start our mathematical analysis of the proposed periodization. Mathematical methods are quite widely used in historical research, but, unfortunately, mathematical studies of historical periodization are very few indeed.¹⁰ However, it is worth mentioning that there have been published several issues of the almanac with a telling title – *History and Mathematics* (Grinin, de Munck, and Korotayev 2006; Turchin, Grinin, de Munck, and Korotayev 2006; Grinin, Herrmann, Korotayev, and Tausch 2010). In the meantime the discovery of mathematical regularities within an existing periodization may serve as a confirmation of its productivity and as a basis for tentative forecasts. *Time* as a parameter of historical development is quite suitable for mathematical analysis, for example, economic and demographic historians study actively temporal cycles of various lengths (about Juglar and Kondratieff cycles see Korotayev and Grinin 2012; Grinin, Korotayev, and Malkov 2010). Cycles used as a basis for this periodization are not different in any principal way from the other temporal cycles with regard to the possibility of being subject to mathematical analysis.

Table 1 (‘Chronology of Production Principle Phases’) presents dates for all the phases of all the production principles. However, it should be taken into account that in order to make chronology tractable all the dates are approximated even more than the ones used in the text above. Table 2 (‘Production Principles and Their Phase Lengths’) presents the absolute lengths of the phases in thousands of years.

¹⁰ It appears reasonable to mention here the works by Chuchin-Rusov (2002) and Kapitza (2004, 2006). Some ideas about the detection of mathematical regularities were expressed by Igor Dyakonov. In particular, he wrote the following: ‘There is no doubt that the historical process shows symptoms of exponential acceleration. From the emergence of *Homo Sapiens* to the end of Phase I, no less than 30,000 years passed; Phase II lasted about 7,000 years; Phase III – about 2,000, Phase IV – 1,500, Phase V – about 1,000, Phase VI – about 300 years, Phase VII – just over 100 years; the duration of Phase VIII cannot yet be ascertained. If we draw up a graph, these Phases show a curve of negative exponential development’ (Dyakonov 1999: 348). However, Dyakonov did not publish the graph itself. Snooks suggests a diagram called ‘The Great Steps of Human Progress’ (Snooks 1996: 403; 1998: 208; 2002: 53), which in some sense can be considered as a sort of historical periodization, but this is rather an illustrative scheme for teaching purposes without any explicit mathematical apparatus behind it.

Table 1. Chronology of production principle phases (figures before brackets correspond to absolute datings (BP); figures in brackets correspond to years BCE. Bold figures indicate phase lengths (in thousands of years)

<i>Production principle</i>	<i>1st phase</i>	<i>2nd phase</i>	<i>3rd phase</i>	<i>4th phase</i>	<i>5th phase</i>	<i>6th phase</i>	<i>Overall for production principle</i>
1. Hunter-Gatherer	40 000–30 000 (38 000–28 000 BCE) 10	30 000–22 000 (28 000–20 000 BCE) 8	22 000–17 000 (20 000–15 000 BCE) 5	17 000–14 000 (15 000–12 000 BCE) 3	14 000–11 500 (12 000–9500 BCE) 2.5	11 500–10 000 (9500–8000 BCE) 1.5	40 000–10 000 (38 000–8000 BCE) 30
2. Craft-Agrarian	10 000–7300 (8000–5300 BCE) 2.7	7300–5000 (5300–3000 BCE) 2.3	5000–3500 (3000–1500 BCE) 1.5	3500–2200 (1500–200 BCE) 1.3	2200–1200 (200–800 CE) 1.0	800–1430 CE 0.6	10 000–570 (8000 BCE – 1430 CE) 9.4
3. Industrial	1430–1600 0.17	1600–1730 0.13	1730–1830 0.1	1830–1890 0.06	1890–1929 0.04	1929–1955 0.025	1430–1955 0.525
4. Scientific-Cybernetic	1955–2000 (1955–1995)* 0.04–0.045	2000–2040 (1995–2030) 0.035–0.04	2040–2070 (2030–2055) 0.025–0.03	2070–2090 (2055–2070) 0.015–0.02	2090–2105 (2070–2080) 0.01–0.015	2105–2115 (2080–2090) 0.01	1955–2115 (2090) [forecast] 0.135–0.160

Note: In this line figures in brackets indicate the shorter estimates of phases of the Scientific-Cybernetic production principle (the fourth formation). Starting from the second column of this row we give our estimates of the expected lengths of the information-scientific production principle phases.

Table 2. Production principles and their phase lengths (in thousands of years)

<i>Production principle</i>	<i>1st phase</i>	<i>2nd phase</i>	<i>3rd phase</i>	<i>4th phase</i>	<i>5th phase</i>	<i>6th phase</i>	<i>Overall for production principle</i>
1. Hunter-Gatherer	10	8	5	3	2.5	1.5	30
2. Craft-Agrarian	2.7	2.3	1.5	1.3	1.0	0.6	9.4
3. Industrial	0.17	0.13	0.1	0.06	0.04	0.025	0.525
4. Scientific-Cybernetic	0.04–0.045	0.035–0.04*	0.025–0.03	0.015–0.02	0.01–0.015	0.01	0.135–0.160

* This line indicates our estimates of the expected lengths of the Scientific-Cybernetic production principle phases.

Table 3 ('Ratio of Each Phase [and Phase Combination] Length to the Total Length of Respective Production Principle [%%]') presents results of our calculations of the ratio of each phase's length to the length of the respective production principle using a rather simple methodology.¹¹ Table 4 ('Comparison of Phase Length Ratios for Each Production

¹¹ The absolute length of a phase (or a sum of the lengths of two or three phases) is divided by the full length of the respective production principle. For example, if the length of the hunter-gatherer production principle is 30,000 years, the length of its first phase is 10,000, the one of the second is 8,000, the duration of the third is 5,000,

Principle [%%]') employs an analogous methodology to compare lengths of phases (and combinations of phases) within one production principle. For example, for the hunter-gatherer production principle the ratio of the first phase length (10,000 years) to the second (8,000 years) equals 125 %; whereas the ratio of the second phase to the third (5,000 years) is 160 %. In the meantime the ratio of the sum of the first and the second phases' lengths to the sum of the third and the fourth (3,000 years) phases equals 225 %. Tables 3 and 4 also present the average rates for all the production principles.

Table 3. Ratio of each phase (and phase combination) length to the total length of respective production principle (%%)

<i>Production principle</i>	1	2	3	4	5	6	1-2	3-4	5-6	1-3	4-6
1. Hunter-Gatherer	33.3	26.7	16.7	10	8.3	5	60	26.7	13.3	76.7	23.3
2. Craft-Agrarian	28.7	24.5	16.0	13.8	10.6	6.4	53.2	29.8	17	69.1	30.9
3. Industrial	32.4	24.8	19	11.4	7.6	4.8	57.1	30.5	12.4	76.2	23.8
4. Scientific-Cybernetic	28.1 (29.6)*	25 (25.9)	18.8 (18.5)	12.5 (11.1)	9.4 (7.4)	6.3 (7.4)	53.1 (55.6)	31.3 (29.6)	15.6 (14.8)	71.9 (74.1)	28.1 (25.9)
Mean	30.6**	25.3	17.6	11.9	9	5.6	55.9	29.6	14.6	73.5	26.5

* In this line figures in brackets indicate the shorter estimates of phases of the Scientific-Cybernetic production principle (the fourth formation).

** The calculation of mean took into account only one version of the information-scientific production principle evolution (that is figures before brackets).

Table 4. Comparison of phase length ratios for each production principle (%%)

<i>Production principle</i>	1:2	2:3	3:4	4:5	5:6	(1+2): (3+4)	(3+4): (5+6)	(1+2+3): (4+5+6)
1. Hunter-Gatherer	125	160	166.7	120	166.7	225	200	328.6
2. Craft-Agrarian	117.4	153.3	115.4	130	166.7	178.6	175	224.1
3. Industrial	130.8	130	166.7	150	160	187.5	246.2	320
4. Scientific-Cybernetic	112.5 (114.3)	133.3 (140)	150 (166.7)	133.3 (150)	150 (100)	170 (187.5)	200 (200)	255.5 (285.7)
Mean*	121.4	144.2	149.7	133.3	160.9	190.3	205.3	282.1

* The calculation of mean took into account only one version of the Scientific-Cybernetic production principle evolution (that is figures before brackets).

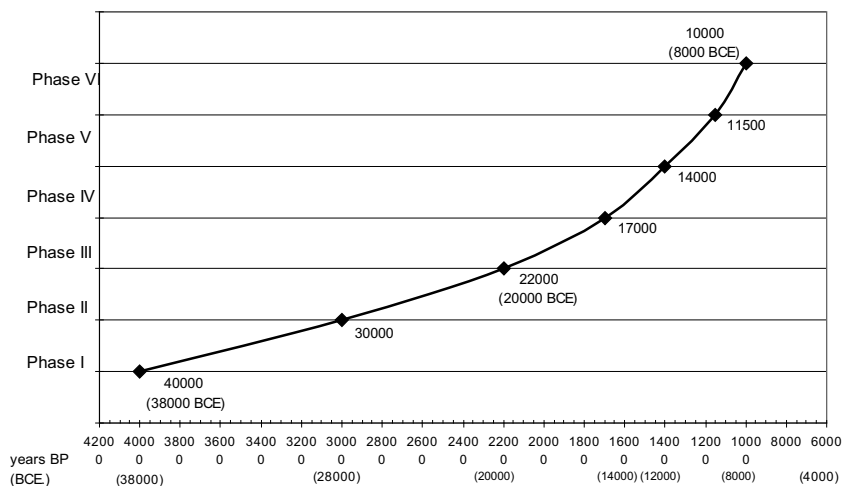
Thus, the proposed periodization is based on the idea of recurrent developmental cycles (each of them includes six phases); however, each subsequent cycle is shorter than the previous one due to the acceleration of historical development. No doubt that these are recurrent cycles, because within each cycle in some respect development follows the same

then the ratio of the first phase length to the total production principle length will be 33,3 %; the ratio of the sum of the first and the second phases' lengths to the total production principle length will be 60 %; and the ratio of the sum of the first, the second, and the third phases' lengths to the total production principle length will be 76,7 %.

pattern: every phase within every cycle plays a functionally similar role; what is more, the proportions of the lengths of the phases and their combinations remain approximately the same (see Tables 3 and 4). All this is convincingly supported by the above mentioned calculations, according to which with the change of production principles stable proportions of the lengths of phases and their combinations remain intact.

In general, our mathematical analysis represented in diagrams and tables indicates the following points: a) evolution of each production principle in time has recurrent features, as is seen in Diagrams 1–4; b) there are stable mathematical proportions between lengths of phases and phase combinations within each production principle (Tables 3 and 4); c) the cycle analysis clearly indicates that the development speed increases sharply just as a result of production revolutions (see Diagram 5); d) if we calibrate the Y-axis of the diagram,¹² the curve of historical process acquires a hyperbolic (Diagram 6) rather than exponential shape (as in Diagrams 1–4), which indicates that we are dealing here with a blow-up regime (Kapitza, Kurdjumov, and Malinetskij 1997).

Diagram 1. Hunter-Gatherer production principle



¹² Within the calibrated scale the changes from one principle of production to another are considered as changes by an order of magnitude, whereas changes within a principle of production are regarded as changes by units within the respective order of magnitude. Such a calibration appears highly justified, as it does not appear reasonable to lay off the same value at the same scale both for the transition from one principle of production to another (e.g., for the Agrarian Revolution), and for a change within one principle of production (e.g., for the development of specialized intensive gathering). Indeed, for example, the former shift increased the carrying capacity of the Earth by 1–2 orders of magnitude, whereas the latter led to the increase of carrying capacity by 2–3 times at best.

Diagram 2. Craft-Agrarian production principle

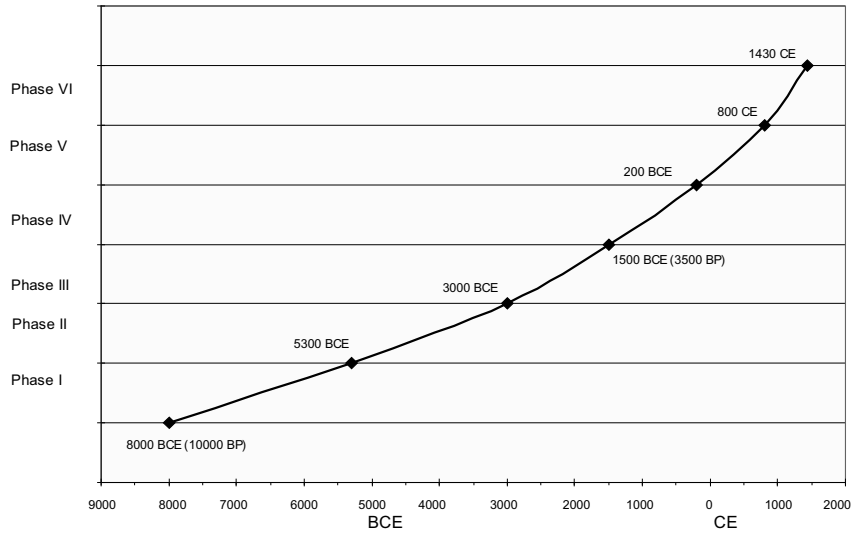


Diagram 3. Industrial production principle

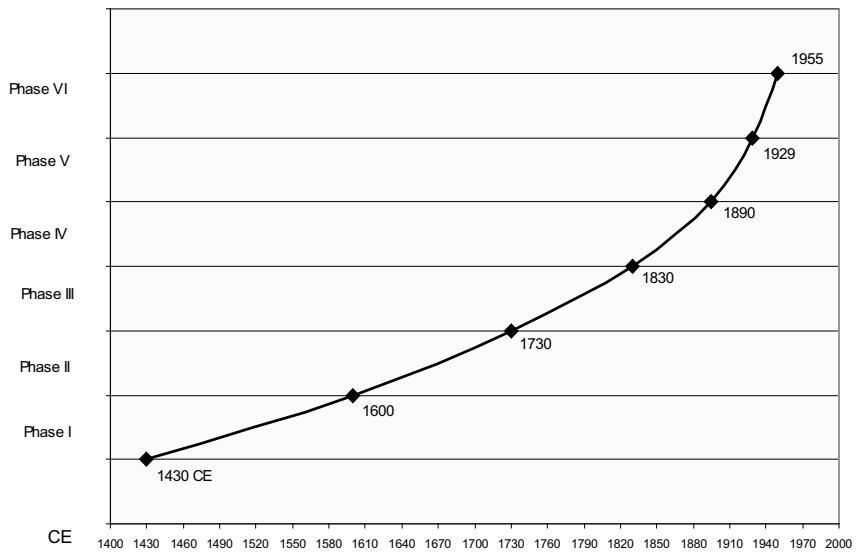
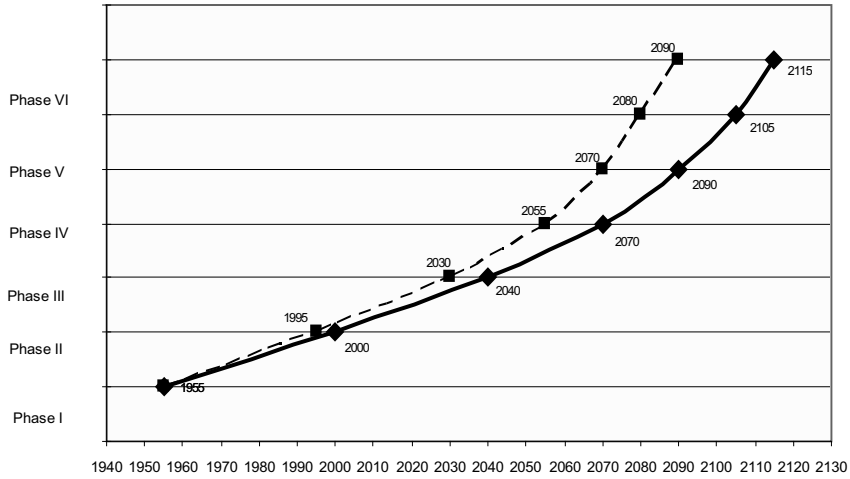


Diagram 4. Scientific-Cybernetic production principle



Note: the broken line indicates the forecast version for the expected development of the information-scientific production principle corresponding to dates in brackets in the line of Scientific-Cybernetic Production Principle in Table 1.

Diagram 5. Evolution of historical process in time

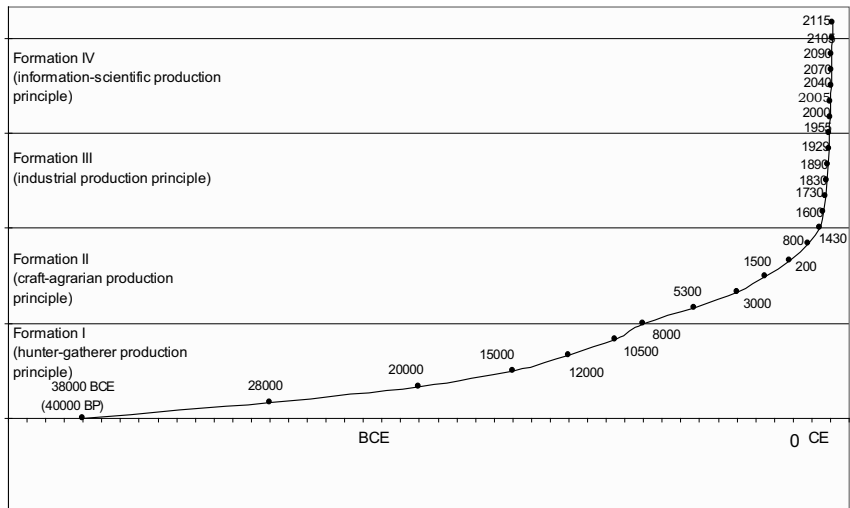
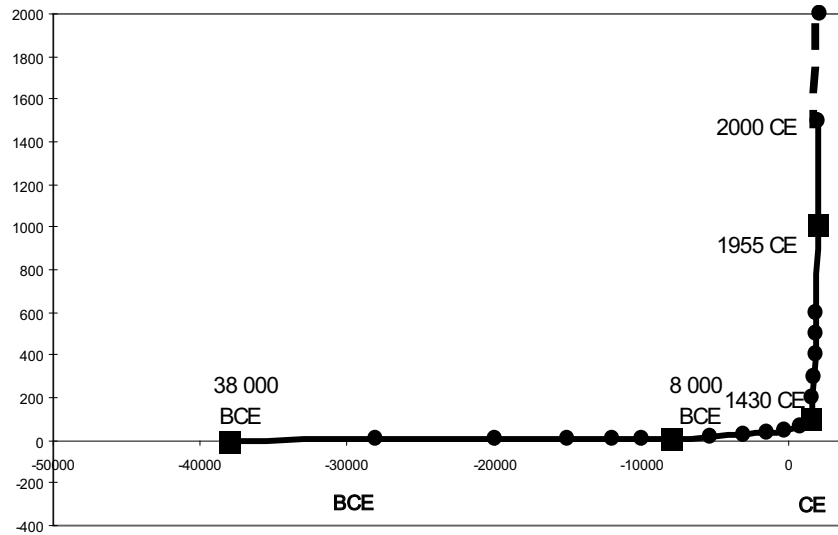


Diagram 6. Hyperbolic model of historical process dynamics

The analysis of stable proportions of production principle cycles makes it possible to propose some tentative forecasts (as mentioned above, we base on such forecasts to estimate the lengths of the remaining phases of the Scientific-Cybernetic production principle).

Spanish Issue in the Global Confrontation of the Great Powers on the Threshold of the Cold War

Alexander A. Sagomonyan

In the present article the author examines in detail the so-called Spanish issue which is presently little known but still deserves more attention as it had no analogues in the post-war Europe. In 1945–1947, many countries' newspapers in Europe and America used to write about the situation in the Francoist Spain and around it, the leading politicians and diplomats analyzed it in their notes and memorandums, public figures spoke in support of Spanish democratic forces, against Franco, with anti-Francoist rallies held in major cities. Eventually, a persistent struggle around Spain developed within the just founded United Nations Organization.

Keywords: *the Spanish issue, Franco regime, the Cold War, the Civil War in Spain, guerrilla movement.*

The Cold War, the struggle of the USSR and the USA for the expansion of their influence in the world actually began right after the end of the World War II, with its main epicenters being moved and multiplied; however, one way or another, it actually covered every aspect of the international relations. At the very initial stage of the post-war confrontation between the East and West, one of such aspects – not paramount, but appreciable enough – was the Spanish issue. This subject is presently little known, although in 1945–1947, many countries' newspapers in Europe and America used to write about the situation in Franco's Spain and around it, the leading politicians and diplomats analyzed it in their notes and memorandums, public figures spoke in support of Spanish democratic forces, against Franco, with anti-Francoist rallies held in major cities. Eventually, a persistent struggle around Spain developed within the just founded United Nations Organization.

The so-called Spanish issue was really complex, ambiguous, and had no analogues in the post-war Europe. Spain, on the one hand, was for many years a friendly state of Germany and Italy, assisting them in the period of military operations, whereas the regime itself formed by General Franco after the Civil War, was considered fascist. On the other hand, however, the country formally maintained neutrality, and towards the end of World War II, it showed more and more flexibility in its foreign policy.

A wide interest in the Spanish issue was further determined by the fact that it seemed to revive the theme of the Civil War in Spain, its results and the defeat of the antifascist camp – all that found large response throughout the world at that time; now, however, it cannot but sound in a new way. After the defeat of Germany and Italy, the question of elimination of their 'servant' Franco and the transfer of power to a democratic government

was widely considered to be natural. It was indeed what the majority of activists in the Spanish emigration of many thousands hoped for. Nevertheless, there were no formal reasons for an external force intervention in the Spanish affairs. The USA governments and Great Britain quite persistently rejected such a scenario, although condemning the Franco regime as such, and favoring its 'peaceful modification' (see Edwards 1999: 46–48, 64–66 ff.).

The Soviet Union, whose role during the Spanish Civil War is well-known, and which kept maintaining close ties with the Spanish Communist Party, was in a more resolute mood. The USSR would be rather interested, in fact, in 'the restoration of historical justice' in relation to the defeated and the winners in the Spanish Civil War. Besides, Spanish 'volunteer' 'Blue Division' was fighting on the Eastern front, that is against Moscow, Franco Spain was a war participant and Hitler's ally.¹ (From his part, Franco considered communism, personified by Stalin's empire, to be enemy, while calling on the Western countries to launch a crusade against it).

The problem of the attitude to Franco's Spain and its political future was one of the factors that divided the recent allies-winners; their open and secret antagonism was inflaming around it, as well as in other cases, new behavior models were developed in the post-war struggle between the two systems (see Johnson 2006).

Moscow was well aware of the persisting attempts to unleash a guerrilla war in Spain; moreover, for some time Soviet leaders encouraged leaders of the CPS to intensify actions in this direction. Enrique Lister, one of the leaders of the guerrilla struggle, member of the CPS Central Committee (who was in emigration in the USSR) described in his memoirs that Joseph Stalin had certain ideas about the 'desirable future' for Spain. In mid-October 1944, he had a two-hour conversation on this subject with George Dimitrov, a former head of the Comintern, and then in charge of the International Information Department of the Communist Party of the Soviet Union (CPSU) Central Committee. According to him, Stalin's ideas could be rendered as follows:

- a) 'to upset plans of Western imperialists, wishing to keep Franco at power after the military defeat of fascism';
- b) to force 'leaders of Spanish socialists, anarchists and republicans to abandon their policy of passive waiting' for the help from outside;
- c) 'to form a government ... that could speak on behalf of the Spanish people ... (or Committee of Liberation) ...';
- d) 'and finally, this representation of the Spanish democracy should be supported by the national movement, the basic expression of which could only be – considering the situation in Spain – the guerrilla struggle' (Lister 1983: 28; Arasa 1984: 254–255).

The same problems were raised during Stalin's meeting (with participation of Georgy Malenkov and Lavrentiy Beria) with Dolores Ibarruri, the Secretary General of the Communist Party of Spain, in February 1945, on the eve of her departure from the USSR for France. (After the liberation of France, forces of the Spanish opposition, including the armed groups, began to concentrate in its southern regions, on the border with Spain).

¹ Materials concerning the 'Blue Division' actions were carefully gathered and kept in archives, its commander Munos Grandes was declared a war criminal by the Extraordinary Commission for Investigation of Acts of Atrocity by Fascist Invaders in 1944. See Russian State Military Archive (further on – RGVA). F. 1425 (Documents on Spain, 1923–1945. Op. 2. D. 46. L. 108). Still, the USSR did not declare war on Spain.

The Soviet leaders declared that the USSR was ready to undertake the delivery of arms to the Spanish groups deployed in the south of France and in Spain. The issue of the country's future after the overthrow of the Franco regime was also discussed (Ibarruri 1988: 102–103; Korotkov *et al.* 1996: 94). According to Ibarruri, Stalin firmly promised help, having summarized it as follows: 'You can rely on us. The Spanish antifascist fighters are our allies' (Ibarruri 1988: 102–103). Thus, the Soviet leader expressed interest in the settlement of the 'Spanish issue' according to his scenario, that is in the revision of results of the Civil War in Spain, and, for this purpose, he considered it necessary to use, firstly, his own international authority, and secondly, the armed formations of the republican opposition.

By that time, the Spanish fighting groups, concentrated in the south of France, were already able to show themselves. They were composed of former fighters of the Spanish Republican Army who crossed the French border in 1939, were interned, and later fought on the side of the French Resistance. Their leaders, communists in the first place, encouraged by an atmosphere of general enthusiasm after the liberation of France, decided to carry out a major offensive operation on the territory of Spain. In October 1944, a formation of several thousand people entered the Aran Valley. They were supposed to establish a stable front in the north of Catalonia, to seize a larger city and to set up a government there; after that it would be possible to seek the recognition of that government by the countries of the anti-Hitler coalition. The insurgents hoped that their actions would provoke mass actions all over the country, which would grow into a national uprising (Sorel 1970: 56; Carrillo 1975: 123). Those plans were doomed to fail. The operation in the Aran Valley, unprepared both in the military and political aspects, ended up with a complete defeat of the guerrilla corps and the retreat of its remnants to the territory of France.

Victor Alba describes those events as follows:

In autumn of 1944, the Supreme Junta of the National Union founded by communists had put forward the slogan 'Long Live National Uprising!' In order to substantiate this idea, it was claimed that it was inspired by Stalin who gave the order to intrude into Spain. Nobody knows how he conveyed the order and who heard it. Many communists, however, believed it. After long years of Stalin's silence about Spain, they were encouraged by the fact that he had honored them with an order to act (Alba 1979: 273).

Lopez Tovar, a communist, one of the leaders of the operation in the Aran Valley, asserted as follows: 'I believe that Stalin had no relation to it [the operation]. At that time, he was facing such big problems compared to which ours were too little' (Arasa 1984: 253). Indeed, one cannot but agree with this.

Within the same period, Santiago Carrillo, the head of the CPS youth organization, who moved to Oran (Northern Africa), a territory occupied by the Americans, was preparing a group of sixty men for landing in Malaga where they intended to set up a guerrilla base. Although the tactics of Carrillo's group were different, the same goal was pursued: to aggravate the situation in order to make allies interfere. Dolores Ibarruri who was still staying in the USSR, resolutely opposed to the planned operation since the risk was too great, whereas the success was doubtful.² Apparently, Moscow already drafted its own

² See Ibarruri 1988: 97–98; Carrillo 1976: 91–92; Russian State Archive for Social and Political History (further on – RGASPI). F. 495 (Comintern). Op. 74. D. 240. L. 124.

program of actions. Carrillo was ordered to move to the south of France, to Toulouse, where he joined the leading group of the Communist Party (having, nevertheless, sent 'prepared comrades' to Spain before it).³

In his report submitted to the International Information Department of the CPSU(B) Central Committee in February 1945, Carrillo told that about eight thousand people participated in the operation in the Aran Valley (in fact, it was a series of operations). They carried out 'the order conveyed by the delegation in Spain to party comrades, signed by M.' (Jesús Monson. – *A. S.*). The order set the following tasks:

... to establish a jumping-off place of the greatest possible extent on the Spanish territory and to gain a footing on it ... In the course of the implementation of this action ... to direct our reserves there, while organizing and arming all new Spanish divisions which will hold this front. This jumping-off place ... should be provided with sufficient quantities of arms, ammunition, foodstuffs and equipment from the other side of the border.⁴

It was envisaged to develop a whole series of 'supporting acts of sabotage and terrorism throughout the Spanish territory at the greatest possible scale.

Carrillo saw the main negative impact of this operation in the fact that 'months of September, October, and a part of November were practically lost due to it, when it was possible to penetrate into Spain *for conducting a real guerrilla struggle, while engaging plenty of people and military materials*' (my emphasis. – *A. S.*).⁵ It seemed that particularly the tactics of 'classical' guerrilla actions were also supported by Moscow, since the last quoted formulation of the report was doubtlessly meant to be understood and approved by the addressee. Some facts testify that the Soviet leadership was actually ready to support the expansion of the guerrilla struggle in Spain, but only after the end of war against Germany, after respective financial and political preparations, and, as the most favorable alternative, relying on the at least indirectly shown consent by the allies (Stalin probably tried to achieve it in Potsdam).

Soon it was decided that all Spanish communist leaders should leave Moscow for France. At that time, Georgi Dimitrov informed Stalin that, on Ibarri's request, he submitted an inquiry to Joseph Broz Tito:

regarding an eventual sending of Spanish comrades Modesto (Russian surname is Morozov Georgi Georgievich), Lister (Russian surname is Lisitsyn Eduard Eduardovich), and Cordon (Russian surname is Kuznetsov Anton Antonovich) to Yugoslavia and their temporary engagement in the People's Liberation Army. Comrade Tito responded with consent. ... In that case Comrades Modesto, Lister and Cordon will have an opportunity to move closer to Spain after a while to work for the Spanish Communist Party.⁶

Having stayed for several months with Tito, Lister and Modesto arrived in Paris in February 1945 (Cordon stayed in Yugoslavia for one more year).

After that, the CPS started to move small guerrilla groups to Spain (from France and Northern Africa) which dispersed all over the country's territory with an assignment to

³ Russian State Archive for Social and Political History. F. 495. Op. 74. D. 240. L. 132.

⁴ RGASPI. F. 17 (Department for Foreign Policy CC CPSU(B)). Op. 128. D. 41. L. 14–15.

⁵ RGASPI. F. 17 (Department for Foreign Policy CC CPSU(B)). Op. 128. D. 41. L. 16.

⁶ RGASPI. F. 495. Op. 74. D. 243. L. 3.

consolidate all active anti-Franco elements. The transfer of those groups was continuing throughout 1945. They carried out minor actions, but those actions were counted in hundreds. The report on the organization of guerrilla activities during that period was also submitted to the CPSU Central Committee.⁷

Accordingly, a wave of reprisals was also growing all over the country. Communists, for good reason, began calling themselves ‘a party of the shot and the guerrillas’. Objectively, at that time, there were no conditions in Spain for the development of a mass insurgent struggle. In fact, the main guarantee of its success was the support by the population, the rural in particular, but the people of the country, exhausted by the recent Civil War and terror, were weary for peace at any cost.

It is unlikely that organizers of the struggle would make such sacrifices unless they relied on a wide international response and support from the outside, on intensifying the global public opinion, on the unacceptability of the existing regime in Spain for the emerging world community.

The Soviet leadership was the first to make an attempt to formulate and raise the Spanish issue before the leaders of world powers. At the Potsdam Conference, Stalin proposed to consider ‘the issue of the regime in Spain’. The Soviet draft resolution on this issue claimed that the Franco regime posed ‘the most serious threat to the freedom-loving nations in Europe’, recommended to break off any relations with the government of Franco, as well as ‘to support democratic forces of Spain and to enable Spanish people to establish a regime that would correspond to its will’. This draft, however, was not adopted. Churchill, in no circumstances, agreed even to discuss the Soviet proposal. In the Anglo-American camp, there was no doubt that the issue was a procommunist government and the attempts to establish it in the power in Spain would lead to the resuming of the Civil War.

Nevertheless, the following wording was incorporated in the final document of the conference: ‘...three governments ... will not support the application for affiliation [with the United Nations], submitted by the present Spanish government which, being established with support of the Axis powers, does not possess, in view of its origin, its character, its activities, and its close ties with aggressor states, the qualities required for such membership’ (Gromyko *et al.* 1984: 334). Certainly, it was not the question of any intervention in the Spanish affairs, or actions against Franco, though the unequivocal condemnation of his regime infused hopes into the Spanish opposition. But the main thing was that the resolution, while declaring Franco an ‘outlaw’, installed a certain political and moral barrier on the way of the eventual normalization of relations between his government and Western democracies. For the Soviet side, it was a step, a small one though, toward the promotion of its policy in the Spanish direction.

Franco, from his part, began to declare even more often that his friendship with the ‘Axis’ countries had been forced by necessity to resist communism. He undertook some cosmetic renewal of the facade of his regime, while waiting for the moment when the ‘monstrous anomaly’ – an alliance of Western democracies with the Soviet Union – would be ended. The Spanish dictator claimed that the international criticism of his regime were intrigues of communists directed at the destruction of the country, and pressure of the

⁷ RGASPI. F. 17. Op. 128. D. 932. L. 9–28.

republican emigration. In Western capitals, they more and more tended to believe that the Soviet Union were rather interested in 'detonating' the Civil War in Spain which would bring communists to power.

The CPS really persisted in the expansion of the guerrilla movement in the country, however, it is impossible to assert, that it did it, exclusively following the will of Moscow. Among Spanish republicans, not just communists, there were thousands of people set irreconcilably towards Francoism and ready to devote themselves to the armed struggle against it. At present, no specific data are available concerning the scale of the Soviet help to insurgents. According to indirect data, it was not too large. It is known that Spanish communists regularly submitted reports on their activities to the CPSU Central Committee and that financial assets were allocated to them, as well as to other 'fraternal parties' (Sagomonyan 1996: 230–234).

According to the practice developed at the final stage of the war, it was necessary to present quite an authoritative and legitimate body to the world community – 'a government in exile' which could take the power after the elimination of the dictatorial regime. And in the autumn of 1945, a coalition republican government led by Jose Giral was actually established in Mexico, where there were many Spanish political emigrants. In early 1946, it arrived to Europe where it tried to strengthen its positions amidst a political situation getting more and more complicated. Having failed to achieve support from both the USA and Great Britain, it started to make radical statements – having, probably, decided that it could only rely on the USSR. And soon, Santiago Carrillo, a CPS representative, became the member of that government.

The weakness of that government was obvious. Firstly, it represented only the republican camp, while excluding the cooperation with much more authoritative figures of the monarchic spectrum. And secondly, it was confronted by the most influential part of the republican opposition as such which backed the Spanish Socialist Workers' Party (SSWP) and its leader Indalecio Prieto. He was reluctant to support a government that was prepared to cooperate with communists in any way, thus having no chances to be recognized by Western democracies.

In the meantime, the Spanish issue found an increasing international response. During the last months of 1945, with the end of military actions in the Far East, and of World War II, an international campaign against the Franco regime, the 'last relict of fascism', started developing more widely in many countries of the world, particularly in France. Ministers and members of parliament – representatives of Left-wing parties, Trade Unions, various committees, mass-media, demanded to break off diplomatic relations between their countries and Spain, to declare the economic blockade. Martinez Lillo, a historian, expert on the Spanish-French relations, claimed that at that time the USSR 'intensified its involvement in the Spanish issue, while putting pressure on the French diplomacy through ministers – members of the FCP, insisting that Paris should find its policy in the relation to Franco' (Tusel *et al.* 2000: 331).

And still, only few governments were inclined to take specific measures against Franco. Playing their role here were both the doubts about the efficiency of such measures and the lack of successful experience of their implementation. First of all, however, it was a fear of the eventual 'second edition' of the Civil War in Spain, the rise of a hotbed of international

tension where a collision between Western powers and the Soviet Union might occur. Besides, many states actively opposed the violation of the principle of non-interference in internal affairs, not wishing to set a dangerous precedent of 'interventionism'. It was, however, symptomatic that Armour, the American Ambassador, was recalled from Madrid right in the end of November, with just a diplomat in a rank of the Charge d'Affaires left there.

On February 3, 1946 George Kennan, the Charge d'Affaires of the USA in Moscow (who soon became known as the ideologist of the American policy of 'containment'), sent a message to Burns, the Secretary of State, in which he reviewed the basis of the 'Spanish' policy pursued by the Soviet Union. In his opinion, this policy was a result of events of the Civil War and World War II, and one could hardly disagree with it. The overthrow of the republican government of Spain by the Francoists, sending the 'Blue Division' to the Russian front (involved in the destruction and plunder of the Great Catherine Palace at Tsarskoe Selo, 'possibly, the finest of Russian historical monuments') determined a hostile attitude of Moscow toward the Franco regime and the wish to remove it. The latter seemed to be necessary also by virtue of political and strategic interests. The Soviet Union aspired to the establishment of the procommunist government in Spain in order to support Communist Parties in Italy and in France, penetrations into Latin America and Morocco from this key springboard. (It should be noted that Kennan obviously adds uncompromising stand and 'range' to the position of the USSR). And strategically, Spain maintained control over the western Mediterranean.

Kennan further asserted that in order to achieve its goals, the Kremlin could neither rely on its military power (since it would require the engagement of air and naval forces the USSR was obviously lacking), nor on the weak anti-Francoist opposition inside Spain, not to mention the unpopular CPS. Therefore, its tactics, according to the American diplomat, consisted in the mobilization of the world public opinion, and then using it to influence Western governments. The Soviet influence in such mass organizations as the World Federation of Trade Unions and the International Women's Federation was particularly tangible. The establishment of a moderate West-oriented transition government in Spain would contradict the Soviet interests. Seeking the application of strict sanctions against Franco, Moscow expected that, given the destabilization and disorders in the country, the organization and discipline of the Communist Party would allow it to take the situation under its control. Kennan believed that Russia's interests in Spain would inevitably collide with interests of Great Britain and the USA (US Department of State 1970: 1033–1036). The note circulated for a long time at the Department of State and was also submitted to the Foreign Office.

This document is of particular interest if one recollects that a well-known 'Long Telegram' by Kennan, evaluating the Soviet geopolitical claims in general and putting forward the concept of 'containment', was already sent from Moscow on February 22. It further paid attention to the Iberian Peninsula: 'If Spain gets under the communist control, the author warned, the issue of the Soviet base on Gibraltar could be solved' (Department of State 1970: 678). Having identified in his 'preliminary' message to the State Department the largest possible limits of Soviet interest in the Spanish affairs, the American analyst quasi-paved the way for his far-reaching conclusions concerning the complete lack of prospects of a 'normal' dialogue with Moscow.

Thus, in early 1946, the issue of Spain's future started taking a broad international sounding: it was a controversial transition period in history, when other problems of the post-war world order did not yet grow ripe completely and were not brought to the forefront.

And in February 1946, against that particular background, the execution of Cristino Garcia, a guerrilla commander, in the recent past a hero of the French Resistance, and of his nine comrades was announced in Spain. Soon after that, 37 socialists were sentenced to long terms of imprisonment for an attempt to revive party structures inside the country. Executions and reprisals were the usual practice by the Francoist regime; however, when expecting looks of the world community were chained to it, it was an undisguised challenge.

The execution of guerrillas found a wide and quite long response in many countries, in the USSR in the first place. For the Soviet press, that event became an excuse for new sharp accusations of the Spanish dictatorship and those *circles* in 'some countries' which aspired 'to maintain the last fascist hotbed in Europe' (the matter did not yet concern *governments* of those countries). During the subsequent few weeks, the *Pravda* newspaper published *daily* the news about various protest actions (mainly organized by Trade Unions) all over the world against the 'fascist terror' and 'bloody regime' in Spain, as well as articles, sketches and feuilletons on the Spanish theme.

The French government, under the pressure of the Left-wing parties which hugely gained in influence, as well as of Trade Unions, made the decision to close border with Spain and to terminate any economic relations with it. It also proposed to discuss the Spanish issue at the UN Security Council.

The USA and Great Britain were, however, not interested in the involvement of the Soviet Union, as a member of the Security Council, in such discussions. It would surely manage to gain political and propagandistic benefits. In London they came to a conclusion that the French initiative was in many respects inspired by 'Soviet agents' who counted on eventual incidents on the French-Spanish border which would provoke a military conflict and force the great powers to interfere (Portero 1989: 147–148). British politicians argued that the situation in Spain was an internal affair of the sovereign state, and did not want to set a precedent of its discussion at the Security Council: it contained neither such an aspect as a controversial problem between two countries, nor an obvious threat to peace and security, as required by the UN Charter.

The solution was that three Western powers came up with their own declaration condemning the policy of Francoism and confirming their unwillingness to maintain 'full-scale and heartfelt relations with it' (March 4, 1946). It contained the following cautious clause: 'There is no intention to interfere in internal affairs of Spain. The Spanish people should eventually determine their destiny'. The hope was expressed that the 'leading patriotic and liberally minded forces of Spain would soon find means to achieve a peaceful retirement of Franco' with the consequent establishment of some 'provisional government'.⁸ The document guaranteed the recognition and help to the future government on the part of Western powers; however, there was no mentioning regarding their assistance of any kind in terms of the overthrow of dictatorship.

⁸ UN. Security Council. Subcommittee for Spanish Issue. New York, 1946. P. 8–9.

Thus, the Tripartite declaration pursued, not in the last instance, the goal to block the involvement of the USSR in Spanish affairs, to prevent possible strengthening of the Soviet influence. Symptomatically, it turned up a day prior to Winston Churchill's well-known speech in Fulton from which Franco could realize that his prospects in the emerging new world order were not too bad.

Soon after that, on March 9, a big program article (unsigned) was published in the *Pravda* newspaper, titled 'On Liquidation of Fascist Regime in Spain' with both, a comprehensive evaluation of the last Anglo-American-French declaration by the Kremlin, and the vision of the Spanish issue as a whole by the Soviet leadership. The Archive of Russian Federation Foreign Policy contains a documentary proof that the author of that article was Vyacheslav Molotov. His note (in handwriting) addressed to Stalin, read as follows: 'I have sent the enclosed article about Spain to *Pravda* for publishing ... Are there any objections or amendments?' And a brief decision by the leader: 'Possible. St.'⁹

A controversy with the stance by Western countries began already from the first phrases, namely from the statement that 'the fascist regime actually *maintains the status of the Civil War*' in Spain. Later, this too 'courageous' thesis was not promoted in the Soviet propaganda, but the second essentially important point was literally repeated in the following months in all statements on the Spanish issue by Soviet politicians and diplomats: the Franco regime '*poses a threat to the global peace and security*' (emphasis added. – A. S.). It, certainly, should become the main argument for submitting this issue to the UN Security Council. Concerning the declaration dated March 4, it was pointed out that it 'is a certain step forward from the point of view of criticism and condemnation' of the Francoism, being at the same time 'completely insufficient, as it leaves open the question of liquidating the fascist regime in Spain'.

In the author's view, 'it should be the question of efficient actions aimed at the overthrow of Franco', not of new calls and persuasions. He made quite pointed remarks concerning the principle of 'non-interference' in Spain's affairs which 'both, in the past and at present mostly suits Franco himself. ... It became a common slogan for Franco and his foreign patrons'.

The contents and level of this publication were obviously indicative of the fact that Moscow was about to begin a new, active and decisive round of exploring the situation around Spain. Moreover, in addition to the attempts to build up the international pressure it also intended to act through other channels.

An evidence of the latter was the message by Bonsal, the US Charge d'Affaires in Spain, sent to the Secretary of State on March 8, 1946:

The Soviet military mission led by colonel Lapshin stayed in Paris for some time. In the USSR, they are afraid that the USA and Great Britain seek that the foreign and economic policy of Spain was oriented at them. The Soviet Union aspires to upset plans of Western democracies and with this purpose it engaged powerful means to enter Spain. Among those means is the use of the disciplined French Communist Party and Spanish emigrants in France. Recently, the influence of Moscow on French communists and Spanish refugees

⁹ Archive of RF Foreign Policy (further on – AVP RF). F. 06 (Secretariat of V. M. Molotov). Op. 8. File 34. D. 536. L. 2.

became quite obvious. Captain Novikov and lieutenant Xilitzin (Kislitsyn? – *A. S.*), members of the Soviet military mission in Paris, are in permanent contact with Spanish emigrants. The first operates in the department of Arjezh and tries to organize the shipment of illegal cargoes with weapons and ammunition to Spain. The other is in Nancy where he deals with the transportation of similar cargoes by sea. Passionaria, the leader of Spanish communists who has lived in Russia for several years, constantly visits the Soviet Embassy and sends the received orders to other Spanish groups ... (US Department of State 1969: 1047–1048).

It should, however, be noted that the forces, mentioned by the author as actually engaged by Moscow, were apparently disproportionate to the goal he named – ‘to upset plans of Western democracies’.

Dolores Ibarruri also informed about the interaction between Spanish communists and FCP in her letter to the CPSU Central Committee in February 1946: ‘...I have suggested that the leadership of the French Communist Party should approach other communist parties with a proposal to agree on the coordination of actions in the matter of rendering assistance to the Spanish people. The French comrades have approved my proposal and authorized comrade Marty to deal with the organization of this campaign’. The FCP itself, as Ibarruri emphasized, ‘is presently rendering an appreciable help to the Spanish Communist Party in every respect’.¹⁰

After the Tripartite Declaration, it took France some time to revoke its proposal concerning the submission of the Spanish issue to the Security Council, despite a negative stance by London and Washington. Only the Soviet Union declared its full support: the message of agreement was delivered on March 8, 1946 through Bogomolov, Ambassador in Paris (Rozantseva 1984: 74).

In the Russian Federation Archive of Foreign Policy, there is a letter by Andrei Gromyko to Vyacheslav Molotov, People's Commissar of Foreign Affairs, sent from Washington on March 11. The Soviet Representative to the United Nations proposed the wording of the possible version of the Security Council's resolution on Spain. ‘At present, it is not quite clear yet whether the French government would raise this issue at one of the next sessions of the Security Council in view of the publication of the known Anglo-French-American Declaration... It should, however, be assumed that the French will raise this issue at the Council, as they are already sufficiently engaged in this regard, and it will not be so easy for them to recede from the position taken up earlier’. While expecting that the Soviet draft would be unacceptable for the British and that they might turn it down, Gromyko expressed the view that such a draft should, nevertheless, be submitted for the consideration by the Council ‘in order to fix our stance on this issue. Politically, it would be surely favorable for us. Let British and others pull back and compromise themselves in the eyes of public opinion’. It should be noted that the Soviet diplomat particularly considered the British, not the Americans as his main opponents.

He also assumed that ‘*our partners*’ (quite so for the time being. – *A. S.*) would offer a resolution in the spirit of the Tripartite declaration, then it would be necessary ‘to use all opportunities to strengthen the content of the resolution in the direction desirable for us’. And further he asserted: ‘Our tactics should be reduced to the fact that the Security Council

¹⁰ RGASPI. F. 17. Op. 128. D. 963. L. 12, 13.

adopts a resolution even if it lacks political firmness', since not to take the decision at all, being limited just to an exchange of opinions 'would be politically unprofitable to us'.¹¹ Leaping ahead, it may be stated that when it came to the discussion of the Spanish issue at the Security Council, Gromyko had to assert a much more radical stance there.

Gromyko's draft envisaged to call upon all countries, both members and non-members of the United Nations, to sever diplomatic relations with Spain as a measure aimed at the elimination of the Franco regime. Three items were proposed as a substantiation: the regime in Spain that had come to power with the support of the German and Italian fascism, was not compatible with principles of the UN Charter; Franco had granted asylum to German war criminals; the Spanish regime constituted a threat to the peaceful existence of peoples.¹²

Thus, both a wide international anti-Francoist campaign supported by the Soviet Union, persistence in the promotion of the Spanish issue at the Security Council, and an obvious intensification of the help to Spanish guerrillas became links of one chain. Everything pointed to the fact that by that time, Moscow developed a certain plan of action for which full implementation the whole range of favorable conditions was, however, required. But even in the absence of a successful influence on the situation in Spain itself, this country represented major interest as a trump in the political confrontation with the West under conditions of the established 'Cold Peace'.

The Tripartite declaration by the USA, Great Britain and France received one more peculiar response from the Eastern side of the 'Iron Curtain', connected with the fact that the item on the 'provisional government' meant the disregard of the republican 'authority' already existing in exile. And exactly a month later, when communist Santiago Carrillo went into the Giral's government, the first recognition of this government followed: the corresponding statement was made by Poland, it happened on April 5, 1946. On April 7, Romania broke off its relations with the Franco regime. On April 13, Yugoslavia announced the official recognition of republican Spain. At the end of the month, Bulgaria broke off the diplomatic relations with Franco, and in July, the republican government was recognized by Hungary.

As to the USSR, it never recognized republican institutions in exile and even spoke about such a possibility. The most complex, accruing like a snowball scope of international problems of that period demanded a carefully verified balance of containment and resoluteness. When some months later Giral, on his request, met with Molotov in Paris, the latter stated as follows: 'Do not ask me about the recognition of your government by the Soviet Union, we have no such a possibility. All socialist countries have already recognized you, and this is all we could do' (Tunon de Lara *et al.* 1976: 212).

Simultaneously, the Soviet Union made a resolute attempt to pinpoint the Spanish issue at the UN, acting this time through its ally – Poland. The matter was that right in the beginning of 1946, a Polish representative went into the UN Security Council for two years as a non-permanent member. The representative was quite an extraordinary person – Oscar Lange, a prominent economist, who used to live about 12 years in the West, professor of the Chicago University, and later a member of the Central Committee

¹¹ AVP RF. F. 06. Op. 8. File 34. D. 533. L. 1–2.

¹² AVP RF. F. 06. Op. 8. File 34. D. 533. L. 3–4.

of the Polish United Workers' Party, member of the Academy (Palyga 1986: 86). He was one of a few outstanding emigrants, non-Communists, who agreed to cooperate with the USSR in forming a new Polish coalition government. Lange visited the Soviet Union in spring and autumn of 1944, met with Stalin and Molotov¹³, participated in the discussion of the Polish issue during the visit to Moscow by Churchill and Mikolaichik, Prime-Minister of the Polish government in exile (Sierocki 1989: 148–154, 183–186). His anti-fascist, anti-Francoist beliefs were quite sincere. In a word, it was an extremely advantageous figure in terms of promoting 'independent democratic' initiatives.

In early April, the Polish government sent a letter addressed to the UN Secretary General proposing to take up the Spanish issue on the agenda of the Security Council. Not wishing to put themselves in an ambiguous situation, the USA and Great Britain agreed to do it.

On April 17, 1946, Lange addressed the Security Council proposing to break off relations with the regime of general Franco as *causing a threat to the international peace* (in case of the recognition by members of the Council, it would be possible to apply corresponding sanctions against Spain). He claimed that Spain had a big army, while building up its forces on the French border, *etc.*, but the main thing was that Nazis hiding in Spain were engaged in the development of 'new kinds of weapons' (*i. e.*, nuclear bomb). Gromyko, representative of the USSR, supported and supplemented the Polish colleague; however, he had no great number of supporters. The camp of their opponents was headed by a delegate from Great Britain: he did not agree to recognize a threat to peace in Franco's present actions, while turning down a number of allegations as unfounded assumptions. His main objection consisted in the fact that the UN Charter does not grant the right to the interference in internal affairs of another state. After an impartial exchange of opinions, it was decided to submit the Spanish issue for the consideration of a Special Subcommittee composed of five persons and headed by a representative of Australia (Leonart and Castiella 1978: 81–86).

The report by the Special Subcommittee was presented on May 31, 1946. Its conclusions had a dual character. On the one hand, it acknowledged that the Franco regime had gained a foothold with the help of the 'Axis' countries, that it was of fascist nature, kept supporting Nazi war criminals, that executions and reprisals of political opponents occurred in Spain, *etc.* However, the Subcommittee was not in a position to recommend the Security Council to interfere in Spain's affairs, as Franco had neither committed any act of aggression, nor threatened the international peace, although posing a 'potential threat'. In view of this fact, it was proposed to submit the issue to the General Assembly, while recommending it to call on all members of the United Nations to break off any relations with Spain.¹⁴

In June, the report submitted by Subcommittee was discussed at the sessions of the Security Council. The discussion found expression in disputes full of dramatic nature and, eventually, in an irreconcilable collision between the Soviet-Polish and Western 'blocks'. Gromyko argued that all charges against Franco were absolutely proved, and that the Security Council itself should immediately take a decision on sanctions, while

¹³ In the 'Record Book of Persons Received by the First General Secretary' was stated that Lange was received by Joseph Stalin (together with Molotov) on May 17, 1944. The talk lasted for more than two hours (Korotkov *et al.* 1996: 76).

¹⁴ UN. Security Council. Official Reports. 1st Year, 1st Series, No. 2. New York, 1946. P. 183–184.

otherwise risking to undermine its prestige. Even his most zealous supporters – delegates from Poland and France – declared that they were ready to accept the Subcommittee's resolution, despite serious objections, since it advanced the cause of condemnation of Francoism and was supported by the majority of the Council. However, during the voting, Gromyko, practically alone, rejected the resolution, while using the veto right. He reacted in the same way to all other proposals 'threatening' with the submission of an issue to the General Assembly where, as it might be expected, many members would show a due 'vigilance' regarding the interference in internal affairs of another state.

The Australian delegate even has stated as follows: 'Mr. Gromyko should realize that his "no" cannot be applied to each of the submitted proposals, until only his own proposal is left! ... He has removed the majority...'¹⁵

The final resolution of the Council just contained a provision that the Security Council 'keeps monitoring the situation in Spain and leaves it on the list of matters, being under its consideration, in order to be ready to take necessary measures at any time'. All the same, the USSR managed to achieve a temporary blocking of submitting the issue to the General Assembly. But essentially, it meant the lack of any appreciable result of the whole half a year anti-Francoist epic.

However, the attention to the Spanish affairs did not as yet relax in Moscow, which was, in particular, testified by a 'top secret' document considered by the Ministry of Foreign Affairs in August-September, 1946. The author of the document, while referring to the fact that in France there were many Spanish emigrants, active republican organizations connected with the underground, *etc.*, proposed 'to allot a task on the Embassy in France to gather various information regarding Spain for the USSR Ministry of Foreign Affairs and to maintain ties with Spanish republican and democratic organizations'. The gathering of information was probably done earlier (through other departments), but now it was planned to organize this activity at a new level: 'to send a skilled diplomatic officer to Paris for dealing with Spanish affairs at the Embassy'. The last decision on the document, by Molotov, with the instruction to draft a nominee was dated September 4.¹⁶

In December 1946, the Spanish issue was, nevertheless, considered by the UN General Assembly. It was included into the agenda on the basis of a written reference by the delegations of Belgium, Czechoslovakia, Denmark, Norway and Venezuela to the UN Secretary General¹⁷. But in order to make the discussion itself possible, it was necessary to resolve such a formality, as the removal of the Spanish issue from the agenda of the Security Council. Here, as it is known, the key was in hands of the Soviet representative.

It should be mentioned that initially, there was no agreement of opinion among the Soviet diplomats concerning the expediency of such a step. It was testified by an 'Inquiry on the Spanish Issue' dated October 29, 1946, kept in the UN referent office fund of the RF Archive of Foreign Policy. It informed that Jose Giral, head of the Spanish republican government, approached Molotov with the request to remove the Spanish issue from the agenda of the Council so that it could be considered by the General Assembly. 'Giral's request is invoked by the fact, reported the author Roshchin, head of Department for the UN Affairs of the Ministry of Foreign Affairs, that he hopes to collect two thirds of

¹⁵ UN. Security Council. Official Reports. 1st Year, 1st Series, No. 2. New York, 1946. P. 221–241.

¹⁶ AVP RF. F. 06. Op. 8. D. 534. File 34. L. 16–17.

¹⁷ United Nations. General Assembly. First Committee. Summary Records of Meetings, Nov. 2. – Dec. 13, 1946. Lake Success (New York), [n.d.]. Annexes. P. 352–353.

voices in the Assembly in favor of the recommendation for the UN members to break off diplomatic relations with Franco ... Comrade Molotov (telegram number 933, dated 14. X.46) proposed to satisfy Giral's request ... having at the same time asked for the opinion by Comrade Gromyko regarding this issue. Comrade Gromyko was ill-disposed toward such a proposal, while in turn asking to refrain from the voting in case any country would put forward [such] proposal ...¹⁸ As we can see, it was not the question of imposing the veto in Gromyko's answer though, he merely opposed the removal of the issue namely by the initiative of the USSR. His main argument was that it would be a sign of changing the Soviet line regarding the Spanish issue; besides, he doubted the favorable outcome of voting at the General Assembly expected by Giral.¹⁹

On October 30, Oscar Lange accordingly proposed to the Security Council to remove the Spanish issue from the agenda of the Council and 'to submit all reports and documents on this issue to the General Assembly'. The Polish draft resolution met no objections on the part of Gromyko, having been accepted unanimously²⁰. Probably, the reason for such a step was, apart from Giral's request, the encouraging beginning of the Assembly's plenary sessions: many UN member countries were obviously in favor of taking tough measures against Franco.

The consideration of the issue at the General Assembly was acute, but without the previous heat, the opposing sides were obviously declined toward a compromise, without claims to achieve the impossible. As a result, a resolution was adopted on December 12, once again condemning the regime of Franco. This time, it called on all countries to recall their ambassadors from Madrid (without formally breaking off the diplomatic relations). The key item of the resolution read as follows: 'Unless a government is established within a reasonable time that would legalize the freedom of speech, religion, assemblies, hold elections...', the Security Council was recommended 'to consider the ways of changing such a situation'.²¹ It was no question of any economic or military sanctions against Spain, there was nobody's obvious, even the Soviet, genuine determination to act behind the taken decision. Thus, one year and a half of the involvement in the Spanish situation showed the unrealistic nature of both, Anglo-American appeals and declarations, and the Soviet expectations of 'detonating' mass anti-Francoist riots combined with the campaign to exercise the international pressure.

If the May report by the Subcommittee on the Spanish issue to the UN Security Council and the resolution proposed to it, basically represented a compromise version, the Soviet Union, at the very nonce, did not place its stake on the compromise, instead, it attempted to use a chance of a radical settlement of the Spanish issue. It was the reason for the extremely hard line by Soviet representative at the Security Council. Probably, there was still a hope to enlist sympathies of hesitating Americans showing readiness to go further than the British in their anti-Francoist statements, to act as advocates of democracy, *etc.* However, the 'balanced' position of the USA (to be exact, the lack of the final distinctness of the strategic course as yet), and the traditional British pragmatism turned out to be unshakable. Already by the end of 1946, the Soviet Union had to see for itself the futility

¹⁸ AVP RF. F. 433 (UN Referent Office). Op. 1. File 1. D. 19 (1946). L. 50.

¹⁹ AVP RF. F. 433 (UN Referent Office). Op. 1. File 1. D. 19 (1946). L. 50.

²⁰ UN. Security Council. Report to UN Secretary-General for a period from July 1946 to June 1947, New York, 1947. P. 11.

²¹ UN. General Assembly. Official Reports. 1st Session. New York, 1946. P. 254, 265.

of its efforts to crush the Francoism by means of international pressure in a form that would give advantage to Moscow. Probably, since that moment, the USSR began to be gradually reconciled to the lot that Spain would remain in the area of the political military influence of the West. Spain was not included into the sphere of USSR's prime interests, that was why its insistence in this issue was short and quite relative.

At the same time, the resolution dated December 12, 1946 was one of the last political compromises achieved between 'East' and 'West' on the eve of launching the 'Cold War'. The session of the UN General Assembly revealed the readiness and ability to achieve coordinated decisions in a series of most complicated multilateral negotiations. Thereby, the question of influence of those decisions on the developments in Spain itself receded to the background. The resolution became a peculiar, though not too high, 'peak' of joint efforts in the Spanish direction by the Soviet Union and Western countries. But almost immediately, a short-term and rather problematic rapprochement was replaced by fast divergence of the sides, more and more deep aggravation of relations between them.

Intentions of Moscow concerning Spain, originating from the analysis of the actual international situation, changed essentially. There are data (from Franco's personal archive) that attempts to establish contacts between Moscow and official Madrid were made right in that period. The issue were several confidential meetings which took place in late 1946 – early 1947 between a Spanish diplomat (Secretary of the Spanish Embassy in France) and a certain businessman, Swiss citizen, who was an 'authorized representative' of the Soviet side (Suarez Fernandes 1986: 17–30). He conveyed a proposal to enter negotiations in order to achieve agreements between Spain and the USSR in economic and political areas. The Soviet side showed particular interest in the 'repatriation of Russian deserters'; in exchange, they promised the Spaniards to stop accusations of the Francoist regime by the Soviet propaganda, to stop the pressure on the emigration, to remove a threat of external intervention in the Spanish affairs, etc.

The Spanish diplomat received instructions to continue negotiations from Carrero Blanco in person, the than right hand of Franco. They concerned conditions on which the relations with the USSR could be improved: Moscow's abandonment of protecting Spanish political refugees; granting of guarantees to Spain not to interfere in internal affairs, and to 'inflate hotbeds of internal conflicts'; repatriation of all Spaniards, 'who stay on the territory of the USSR against their will' (Suarez Fernandes 1986: 20).

Those negotiations were short-cut rather quickly. The last meeting took place in April 1947, after the well-known speech by Truman describing the new American foreign policy doctrine. At the meeting it was pointed out that the favorable moment to establish contacts was missed. Probably, an echo of these (or any others) confidential contacts was the TASS statement published in the *Pravda* newspaper on May 5, 1947. The TASS denied the statement by the Stockholm newspaper *Svenska Morgenbladet*, informing that 'negotiations were held in Tangier and Buenos Aires for already several months between the USSR and Francoist Spain concerning the conclusion of the pact of friendship'; those statements referred to as the foolish fiction were circulated with the purpose of disinformation of the public opinion.

The international climate became really tougher, with the division of Europe promptly coming to an end. Spain should become one of major strategic border lines of 'containment' of the communist expansion. An American military mission, and then

an official American representative were soon sent to Madrid to grant a large loan. The Soviet Union speeded up the establishment of its own system of security on the nearest borders, having left the Spanish boil in the rear of the Western zone of responsibility and occasionally using this sensitive topic in the inflaming political and ideological antagonism. Following the logic of its interests, Moscow, at a certain stage, started to point the edge of 'the Spanish issue' more resolutely against its Western antagonists. And soon after that, Spain was practically completely dropped out of the sphere of its interests for long years.

Seeing the hopelessness of both, the struggle of Spanish guerrillas, and the international pressure upon the Franco regime, the Soviet leadership resolutely drew the line under its Spanish policy. On August 5, 1948, a meeting of CPS leaders Ibarri, Carrillo and Anton with Stalin (Korotkov *et al.* 1997) took place at the Kremlin where it was clearly indicated to them that it was necessary to close up the guerrilla movement and to look for new tactics. According to Carrillo's memoirs, Stalin told that under the new conditions, it was necessary for Spanish communists to develop the work in legal mass organizations, in Francoist Trade Unions in the first place. Henceforth, he advised to use guerrilla groups as security guards for the party leadership, and for the maintenance of underground contacts between cities. Dolores Ibarri recollected that they had tried to object, had spoken about successes of the guerrilla struggle, that workers would not understand them, *etc.*, but in response Stalin had called them 'leftists'. After that meeting heads of the CPS agreed that their position concerning the issue of struggle against Francoism was too leftist, having soon afterward taken the decision to close up the guerrilla movement (Carrillo 1975: 124–125; 1976: 96–98; Ibarri 1988: 146).

Dmitri Volkogonov, who had in one's time got the access to the Archive of the RF President, also informed about the same meeting. He confirmed that, actually, the Stalin's main idea was that communists should 'penetrate everywhere'; besides, the CPS was offered a 'help', amounting to 600 thousand US dollars.²²

Gradually, all attempts to boost the Spanish issue at the UN also came to naught (one of the last unsuccessful and frankly propagandistic initiatives was in May 1949, when the Polish delegation had asked the General Assembly to adopt the resolution actually directed against the USA and Great Britain which 'contributed to the strengthening of the fascist regime in Spain'). The resolution on Spain adopted in December 1946, was already cancelled in 1950. In the world, passions already ran high around absolutely other problems ...

References

- Alba, V. 1979.** *El Partido Comunista en Espana*. Barcelona: Planeta.
- Arasa, D. 1984.** *Anos 40: los maquis y el PCE*. Barcelona: Arcos Vergara.
- Carrillo, S. 1975.** *Mañana España*. Paris: Ebro.
- Carrillo, S. 1976.** *Dialogue on Spain with Regis Debray and Max Gallo*. London: Lawrence & Wishart.
- US Department of State. 1969.** *Foreign Relations of the United States. Diplomatic Papers. 1946*. Vol. 5. *The British Commonwealth; Western and Central Europe*. Washington, DC: GPO.

²² Volkogonov 1995: 239; Archive of Russian Federation President. F. 45. Op. 1. D. 38. L. 105–114.

- US Department of State. 1970.** *Foreign Relations of the United States. Diplomatic Papers. 1946.* Vol. 2. *Council of Foreign Ministers.* Washington, DC: GPO.
- Edwards, J. 1999.** *Anglo-American Relations and the Franco Question. 1945–1955.* Oxford: Clarendon Press.
- Gromyko, A. A., Zemskov, I. N. et al. 1984. (Eds.).** *The Soviet Union at International Conferences during the World War II Period. 1941–1945. Collection of Documents.* 6 vols. Vol. 6. *Berlin (Potsdam) Conferences of the Heads of Three Alien States – USSR, USA and Great Britain (July 17 – August 2, 1945).* Moscow: Politizdat. *In Russian.*
- Johnson, E. 2006.** Early Indications of Freeze: Greece, Spain and the United Nations, 1946–47. *Cold War History* 6(1): 43–61.
- Ibarruri, D. 1988.** *Memories.* 2 vols. Moscow: Politizdat. *In Russian.*
- Korotkov, A. V., Chernev, A. D., and Chernobaev, A. A. 1996.** The Visitors of the Kremlin Office of Josef Stalin. Record Books, Notes of the Visitors Accepted by the Chief Secretary. 1924–1953. Continuation. *Istoricheskij Archiv* 4: 66–131. *In Russian.*
- Korotkov, A. V., Chernev, A. D., and Chernobaev, A. A. 1997.** The Visitors of the Kremlin Office of Josef Stalin. Record Books, Notes of the Visitors Accepted by the Chief Secretary. 1924–1953. Conclusion. *Istoricheskij Archiv* 1: 66–131. *In Russian.*
- Lister, E. 1983.** *Asi destruyo Carrillo el PCE.* Barcelona: Planeta.
- Lleonart, A. J., and Castiella, F. M. 1978.** *Espana y ONU (1945–1946).* Madrid: Consejo Superior de Investigaciones Científicas.
- Palyga, E. 1986.** *Dyplomacja Polski Ludowej. 1944–1984.* Warszawa: Instytut Wydawniczy Związków Zawodowych.
- Portero, F. 1989.** *Franco aislado: la cuestión española (1945–1950).* Madrid: Aguilar.
- Rozantseva, N. A. 1984.** *France in UNO. 1945–1980.* Moscow. *In Russian.*
- Sagomonyan, A. A. 1996.** The Guerilla Struggle in Spain in the 1940s. *New Archive Data. Novaja i novejšaja istorija* 1: 230–234.
- Sierocki, T. 1989.** *Oscar Lange.* Warszawa: Książka i Wiedza.
- Sorel, A. 1970.** *Guerrilla española del siglo XX.* Paris: Librairie du Globe.
- Suárez Fernández, L. 1986.** *Franco y la URSS.* Madrid: Rialp.
- Tunon de Lara, M., Marichal, J., Giral, F. et al. 1976.** *El Exilio Español de 1939. Documentos.* Vol. 2. *Guerra y Política.* Madrid: Taurus.
- Tusel, J., Aviles, J., and Pardo, R. 2000. (Eds.).** *La política exterior de España en el siglo XX.* Madrid: Biblioteca Nueva.
- Volkogonov, D. 1995.** *Seven Chiefs.* Vol. 1. Moscow: Novosti. *In Russian.*

Part II. GLOBALISTICS, GLOBAL STUDIES, AND GLOBAL PROCESSES

Global Studies in Modern Science

Ilya V. Ilyin and Arkadi D. Ursul

The authors consider it necessary to determine the status of Globalistics and the place of the scientific exploration of global processes in modern science, to build a common vision and estimate the prospects for Global Studies. Irrespective of either a narrow or broad definition of the subject, Globalistics is assumed to be only a part of a broader scientific field – Global Studies, as well as a part of the general process of globalizing science. It is shown that to change the subject field of Globalistics as well as of Global Studies (that expand that field) one needs not only historical, but also evolutionary vision both of the already studied global processes and of new challengers for the same ‘role’, including global natural processes.

It is shown that Vladimir I. Vernadsky conducted a pioneer research in Global Studies, and many of his ideas extended to a planetary scale. One can speak about his anticipation of a special – that is a global – stage and development trend in science in general, as well as of his anticipation of the age of globalization in human history. Vernadsky's idea of the ‘planetary’ character of scientific thought has already acquired a specific shape both in the global processes taking place in the world and their understanding, and in anticipation of future social and socio-natural evolutionary processes.

Keywords: *globalization, Globalistics, Global Studies, global knowledge, global education, global processes, global evolutionism, historical approach, Evolutionary Globalistics.*

Global Stage in the Development of Science

The research in global processes was a logic scientific response to the global challenges of the late 20th and early 21st centuries. The comprehension of the important role of globalization, global problems and other planetary-scale phenomena, as well as understanding of the prospects of further expansion of cumulative global activities became an important milestone in the elaboration of scientific paradigm and scientific worldview. Earlier the augmentation of scientific knowledge occurred most effectively within certain scientific disciplines through further differentiation and specialization. But today as one can observe in the majority of scientific disciplines, including Global Studies, the leading position is taken both by the interdisciplinary knowledge synthesis and the synthesis process between fundamental and applied studies, forming and extending the integration

Globalistics and Globalization Studies 2013 146–165

and globalization waves throughout the science and education spheres. However, Global Studies become a leader of current scientific and educational process not only because of their integrative and general scientific potential, but also because they become a new important constituent of the present-day scientific worldview as well as due to a number of other fundamental circumstances, which together have significantly boosted the growth of the scientific knowledge on the global scale.

Notwithstanding the rapid and spontaneous development of studies of global processes and the emergence of a corresponding type of education in the world, a justified concept and strategy for their further theoretical and practical development have not been defined yet. Currently, the notions and subject fields of Globalistics and Global Studies have not been defined, as well as the essence and prospects of the globalization phenomenon and, in particular, globalization of science and education. Besides, the relations between the newly emerging Global Studies branches and traditional disciplines have not been identified and evaluated either. In this connection, it has become necessary to develop a common concept of the global phenomena in contemporary science and estimate the prospects for the development of Globalistics and Global Studies.

When speaking about the origins of Global Studies, it is not often recalled that global ideas in many branches of knowledge belong to Vernadsky. Meanwhile, the studies of global and planetary processes have originated from Vernadsky to a considerable extent, whereas Vernadsky attributed much importance to science in terms of creating the 'sphere of human thought' (*noosphere*). In addition, the formation of the sphere of 'human thought' starts when the scientific ideas reach the global and even universal scale. Vernadsky constantly emphasized this idea in his works: 'Under the influence of the scientific ideas and human labor, biosphere is transformed into *noosphere*. Humankind, logically moving over a period of a million years or so with ever increasing pace, inhabits the whole planet, separates and moves away from other living beings as a new unprecedented geological force' (Vernadsky 1991). When globalization of science (currently, that notion is quite often used) is considered, most publications refer to the academic mobility, 'brain drain', the planet-scale knowledge expansion, publications and citations, applying of new emerging information technologies, international cooperation and formation of international scientific organizations (quite often aimed at solving global problems), which contribute to international and global expansion of science. However, hereby we will not consider these 'activity-based', often generally sociological or science-based aspects, which generally confirm the establishment of the scientific thought as a 'planetary phenomenon' (Allakhverdyan *et al.* 2009; Kozhanov 2010). It makes sense to consider the aspect of globalization of science, which is connected with Global Studies development that is insufficiently studied in recent publications on the Globalistics-related issues.

Many scientific fields get a global dimension mostly under the influence of Globalistics and Global Studies. However, not only Globalistics, but other Global Studies also generate global knowledge and contribute to the increasing globalization of science. Globalization of science manifests itself in the emergence of global characteristics and features, which during the 'pre-globalization period' were absent or not perceived (as, for instance, they did not use the word 'globalization' for the issues which Vernadsky spoke about although one can hardly deny today that was the point).

At the same time, one should not reduce the scientist's impact on science on the global scale just to his pioneer research in Global Studies, and that many of his ideas extended to a planetary scale. Perhaps, it is possible to speak about his anticipation of a special – global – stage and general development trend of science, the age of globalization in history of humankind. Vernadsky's idea on the 'planetary' nature of scientific thought has already acquired its specific shape both in the global processes taking place in the world and their understanding, and in anticipation of future social and socio-natural evolutionary processes.

The formation of Globalistics in Russian literature is often dated from the end of the 1960s till the beginning of the 1970s. As A. I. Kostin notes, that period was characterized by a profound study of two global issues of modern times – the space exploration and environmental protection (Kostin 2003; 2005: 21). This does not mean that other issues which later were called global were in no way covered in the academic literature. They were just not perceived as global issues connected with each other, although some of them were studied by the scientists, following mondialism – the ideology and movement, aimed at the transition from the current variety of forms of the planet's human population practices to the unified globally managed world. In addition, in order to maintain the international peace and safety, the United Nations Organization was created in 1945, aimed at solving the global problem of war and peace.

As one can see, at least three above-mentioned global issues were already studied and perceived from the middle of the last century, but they were analyzed separately from each other, although their universal and planetary status was obvious. There were well-known reasons and circumstances for understanding the problem of war and peace, while for the research of space exploration that was the launch of the first satellite and the first man in space by the USSR. The problem of environmental protection was driven by the first UN Conference on the Human Environment that took place in Stockholm in 1972. As regards the issue of space exploration, the time of its first evaluation can be shifted from the end of the 1960s to the middle or even the early 20th century, when the works on philosophical aspects of space exploration first appeared in the world literature (Ursul 1964; Faddeyev 1964).

However, that is not the main point, but rather that the start of formation of Globalistics can be shifted even to the first half of the last century. It was particularly during that period of time, in the second half of the 1930s, that the global process, which we currently consider to be globalization, started to be investigated, but was not yet denoted by the term 'globalization'. Thus, Vernadsky put forward the following ideas: 'For the first time in the history of the Earth, the human being colonized its whole surface and humankind became a single totality in the life of the Earth' (Vernadsky 1991: 240). In his book the scholar gives the same facts and arguments, as the contemporary scientists do, indicating the humankind endeavour to its unity and integrity. In fact, it is the globalization process that is being researched hereby. But if the term 'globalization' was not used, can we argue that Vernadsky started to study the globalization process much earlier than the scientists of the late 20th century? What is more important: the introduction of a term or investigation of the process itself? Apparently, the latter is more important, but there are also proponents of the linguistics contribution to the problem, who consider that globalization started from the last decades of the 20th century.

When reading Vernadsky's work 'Scientific Thought and Scientific Work as the Geological Force in Biosphere' (Vernadsky 1991: 13–190), one comes to realize that the scientist considers, in fact, the same issues that we usually come across in many works on Global Studies, in particular, the globalization issues (though in Vernadsky's works the terms 'global' and 'globalization' were not used). Instead, he uses the term 'planetary', sometimes 'universal', which has almost the same meaning in his works. The scientist believed that

for the first time in the history of mankind we are in the situation of the *unified historical process, fully embracing the whole planet's biosphere*. The complex historical processes have just completed, which continuously and autonomously had been going on during the life-span of several generations, and which eventually... in the 20th century led to the creation of *the unified and inextricably interconnected entity*... And, perhaps, the most importantly is that the material and solid connectivity of the humankind and its culture is rapidly and inevitably deepening and strengthening... The increase in the universality, connectivity of all human societies is continuously growing and becoming obvious almost every year... (Vernadsky 1991: 82)

From the very beginning the scientist developed in his works the concept of the *noosphere* within the planetary-wide perception as a worldview of noospheric globalism, according to which globalization and noosphere formation ideas appeared to be combined in a peculiar integral form of worldview. In his scientific works, Vernadsky was several decades ahead in the perception of global processes in society and science, which enables us to consider him not only one of the founders of global world perception (nobody would argue this fact), but even the founder of Global Studies (Ilyin and Ursul 2012).

Later, in the second half of the 20th century, the global processes perception originated in the studies of global issues, while in the last decades – it manifested in the study of the globalization processes. That even became the basis to determine 'Globalistics' as 'an interdisciplinary branch of scientific studies, aimed at identification of the essence of globalization, the causes of its emergence and development trends, as well as the analysis of its positive and negative implications' (Chumakov 2012: 5).

In recent years, starting from the publication of the monograph *Evolutionary Globalistics* (Ilyin and Ursul 2009), we are inclined to indicate the beginning of the next development stage of Globalistics and Global Studies, which concern not only globalization and global issues but the whole range of global processes (including natural planetary-scale processes). As a result, globalization of the whole science is accelerating. That stage could be nominally called 'evolutionary', but since it has only started, it makes sense to wait for a more adequate name for it.

The globalization of science primarily manifests itself in the emergence and development of Globalistics and Global Studies in the broadest sense. Their impact on the other part of the scientific knowledge constitutes a significant part of the globalization of science, however not to such a considerable degree yet. However, it is not the only component of the science globalization process: indeed, the 'global seedlings' in any particular scientific discipline or issue can spontaneously appear regardless of the application of the results of the performed global research, and cannot lead to the emergence of global trends

within the fields of research. Thereby, science can be gradually 'saturated' with some, perhaps, not yet significant global knowledge, which will not lead to significant transformations similar to the origin of a new global discipline.

One can also point that an obvious process of scientific knowledge globalization is taking place, when, for instance, 'global' is somehow added to the already existing sciences (disciplines) either in the form of a branch within Globalistics, or the term 'global' is placed before the name of the branch of science. Economics which becomes *Global Economics* typifies here and also generalizes those new phenomena that have emerged in the world economy within the last decades and will continue to occur under the influence of globalization and other global processes.

Perhaps, in the near future we will witness the emergence of Global Political Science that will appear in addition to Political Globalistics, included in the subject matter of Globalistics (Ursul and Ilyin 2010). Here the major factor is the dominant impact of either Globalistics or Political Science. Another example is Geopolitics which is not included in Globalistics (although it is closely connected with it), but which is already obtaining the global character (and even claims for the cosmic continuation). This is the development path that will be taken by many scientific disciplines under the influence of the 'global attractor' of growing knowledge. Within a short period of time we will witness that many established and traditional disciplines will get 'global' addition to their names, as it has already happened with the 'cosmic' addition under the influence of space exploration and development of astronomy. Thanks to Globalistics, an increasing number of scientific fields become globally oriented and are included in the scope of Global Studies, enriching and expanding them. Some of them can still be included in Globalistics and will enlarge it, while others can remain outside the Globalistics purview and enrich Global Studies. The further evolution of Global Studies will occur both due to the 'globalization' of the currently existing scientific disciplines and fields, as well as the Globalistics development together with other fields of scientific inquiry that will be globalized to a certain extent.

The Expansion of the Subject Field of Globalistics

As it has been stated above, until recently in Russian academic literature Globalistics has been most commonly defined as an interdisciplinary and integrative field of scientific inquiry, focused on the identification of the essence of globalization and global issues, causes of their formation, laws and trends in their development, encouraging the positive implications and mitigation of the negative implications, aimed at maintaining the humankind survival and biosphere preservation (that notion was included in the first international encyclopaedia on Globalistics: Mazour and Chumakov 2003: 199).

However, in a recent article, one of the authors of the above stated definition has already defined Globalistics as '*the interdisciplinary field of scientific studies, focused on the identification of the essence of globalization, causes of its emergence and development trends, as well as the analysis of its positive and negative implications*' (Chumakov 2012: 5). So global problems are not mentioned any more, since they are considered the implications of the centuries-long natural and historical process of globalization and its consequent result. *One can quite agree with the statement that globalization gives rise to global problems, should the literature provide arguments in favour of their unambigu-*

ous cause-and-effect relationships. That would be the way, if globalization was the sole global process causing global problems. However, in our opinion, there are other global processes (some of them will be mentioned further on), and thus, mere logical reasoning does not allow supposing that global issues are caused solely by globalization.

There exists a broader approach. For instance, Ulrich Beck argues that global problems originate in the non-linear character of the world development (Beck 2001: 23–26). One can generally agree with that statement: the emergence of global issues is the result of the humankind overall historical development in which globalization played a certain role. The question is whether globalization was the only and the major factor. However, it will be not so easy to determine which global problems result from the preceding globalization processes and which – from other global processes and the worldwide process of civilization development. Besides, such an approach does not seem to be a proper way of research. That is why it seems logical to use the definitions of Globalistics which present it as an investigation of humankind in its planetary-wide entirety (Cheshkov 1998: 129; Fedotov 1999: 20; Ursul 2008). We consider this approach to interpreting Globalistics as quite promising; however, one should add here the issues concerning the interactions between civilization and nature.

It is worth noting the facts demonstrating that global issues originate not only from globalization (if we consider that globalization started just several centuries ago, as for instance, within the Europe-centric approach – with the geographic discoveries). If we consider the earlier humankind history, we will be able to find the processes similar to the global issues occurring as early as in the Palaeolithic and during the transition from the Palaeolithic to the Mesolithic and Neolithic. One can consider that global issues in a somewhat different form appeared earlier at the times as well, when globalization was not present yet in the sense it is currently understood by the scientists.

Vernadsky discusses these processes and speaks about mastering fire, one of the natural forces, and he calls it ‘a great discovery’ and even ‘a planetary revolution’ conducted by a man. According to the scientist, this discovery was made, in one or two places and slowly spread among people. Thus, mastering fire gradually became planetary-scale and helped humankind to survive during the Ice Age (Vernadsky 1991: 136).

The second planetary-scale process that Vernadsky highlights is the transition from hunting and gathering to food production. It is doubtful whether the transition to the Neolithic (the Agro-neolithic revolution) can be considered as the globalization process, although such a point of view exists. However, there is no doubt that this is a peculiar global-systemic and socio-natural process of humankind development, covering thousands of years.

Before the transition to the food production, the hunter-gatherer economy was extensively spreading across the planet. At that point there occurred an economic ‘clash’ between the mode of subsistence and the local-regional conditions, which are essentially global restrictions manifested in each ecosystem of the planet (depending on the biodiversity of the area the hunters and gatherers needed dozens of square kilometres to supply subsistence). It led to global crisis of this primary economic mode and of the type of life support at the planetary scale.

Hereby one can clearly observe the spatial expansion of that economic mode that was extensive in its nature with the trend of the hunter-gatherer bands getting closer from

the geographic standpoint. However, the extensive development of that economic pattern encountered not only local, but also global implications and constraints. They were caused partly by the extirpation of the megafauna as the major source of protein-rich food, as well as by its possible disappearance due to the changed natural climatic and ecological conditions.

The clash of the hunter-gather economy with the above-mentioned local-global (glocal) constraints resulted in the planetary-wide food-related crisis during the Upper Palaeolithic period and a significant decrease in the planet's population (approximately by the order of magnitude¹). The continuation of that extensive type of economy could result in the extinction of forming humankind and objectively required the transition to a principally new way of interacting with the nature, enabling survival of population in various areas of the planet.

It was just at that period of time that the global crisis not only in terms of the type of economy (hunting and gathering) occurred, but actually, in terms of humankind's existence as well; it can be rather compared with the emerging set of current global problems, which also predict either the collapse or a transition again to a new socio-natural economic mode and simultaneously – the survival of civilization. Solving the planetary-wide problems of the higher Palaeolithic led to the formation of the productive economy as a conceptually new process and the deployment of a number of humankind development trends that were later perceived as the globalization processes. As we can see, something similar to the current global processes had already occurred during the ancient history, and now the humankind virtually faces the similar problem of survival and of the formation of a new economic type as well as securing its own safe existence on the planet.

Globalistics can be perceived not only as a multi- and interdisciplinary, integrative and general field of science, but as a currently expanding global practical activity (in particular, following Vernadsky's ideas, as the geologic activity), aimed at the mentioned promotion of positive implications and mitigation of the negative ones of those processes as regards the humans and biosphere. In this connection, in a broad perspective Globalistics is considered not only in the scientific and research aspect, but also as a social and activity-based aspect. It 'embraces' global issues, processes and systems as objective phenomena which it not only studies, but to which it is directly relevant via subject-practical global activity. Thus, Globalistics as a scientific thought and its manifestation in the global activity contributes to the global (universal) evolution.

Since Globalistics can be interpreted not only as a scientific field, but also as a sphere of human activities, taking or already having the planetary-wide scale, in that sense it is similar to informatics and space science whose intensive development somewhat preceded the development of the phenomenon under study in the present paper. Besides, those branches of scientific inquiry also brought about such trends as advancement of information and space technologies, as well as the development of corresponding industrial and economic networks. However, here we will speak only about the scientific aspect of Globalistics, and not issues of global economic, political, legal or some other activities, since many currently existing practices have been developing their global dimensions.

¹ One of such global natural catastrophes took place approximately 75 thousand years ago, when the eruption of Toba super-volcano in Indonesia resulted in the drastic (by no less than an order of magnitude) decrease in the number of the human predecessors.

With respect to the further analysis it is important to note that the formation of Globalistics is also connected with the development of the planetary-scale scientific studies and with the trend of globalization of science.

The position of Globalistics in the system of scientific knowledge and at the level of the scientific worldview has not been defined clearly enough. We can only welcome the attempts to solve this problem, which are covered in the article by Alexander Chumakov and a number of other works (*e.g.*, Cheshkov 2005). In our opinion, Globalistics is the major subject field, a certain 'core' of the of Global Studies area, which is called 'Global Studies' in English-language literature. Although in the Russian-language literature that word combination is translated as *глобалистика* ('Globalistics'), we are convinced that it has been appropriate only at the initial stage of 'comparison' of the Russian and foreign research in the similar or adjacent fields of research.

If we reduce the subject field of Globalistics to globalization alone or add global issues hereto as well, then other global phenomena inherently included in Globalistics, will prove to be included in the subject field of Global Studies. Here we meet an unidentified and not always evident difference between Globalistics and Global Studies: as currently nobody can provide an unequivocal definition of Globalistics then all other global processes will be included in the purview of Global Studies. By the way, Globalistics in that sense is also included in Global Studies. That is why the task of identifying its subject field as differing from that of Global Studies, appears to be not so fundamentally important, as it seemed earlier (although it remains necessary).

Currently, it is difficult to state, whether one should equal Globalistics with Global Studies, as it quite often happens. Time will show whether it is a right choice, but even today one can argue that Global Studies are much broader than Globalistics, at least because Globalistics (in particular, in terms of its narrow definitions) does not and will not comprise a number of fields of those studies.

Globalistics is an interdisciplinary and integrative field of the scientific knowledge, which acting as a certain 'global attractor' has already started to engage various other disciplines, thus expanding its subject field. In that sense, Globalistics, even if it focuses only on the phenomenon of globalization, will any way continue to expand its subject field through the interactions with other disciplines. In addition, it has been empirically proved that on the interfaces between a number of scientific areas there have appeared the historical, political, information, legal, cosmic and other forms (branches) of Globalistics, which expand its discipline-specific field, and it seems that this process is just about to involve the most fields of scientific knowledge.

That expansion is still characterized by undefined limits, but it is evident that Globalistics cannot embrace the full scope of science, even at the stage of its ever increasing globalization. Global Studies go beyond the limits of Globalistics and generally involve many, if not all, scientific fields (*a priori* excluding only those having a fundamentally local or regional character). Globalistics may follow the path of the space sciences that have been significantly expanded as a result of the practical space exploration, but at the same time it gave rise to the formation of quite a large number of scientific fields with the 'cosmic addition' – cosmic physics, cosmic biology and medicine, *etc.*, which is considered as the science 'cosmization' process.

That is why alongside with the further development of Globalistics, the globalization of scientific knowledge has started, impacting an ever increasing number of disciplines. Anyway, it seems possible that the majority of scientific fields will still avoid 'giving away' their fields of Global Studies in favour of the subject field of Globalistics, as has already happened with the global economics (the name 'economic Globalistics' is not used just for that reason). Even 'legal Globalistics' that has already obtained its name, will probably change its name to 'global jurisprudence' or continue Global Studies in that area (Ursul 2012a). Along with 'political Globalistics', the term 'global politics' is used, especially in foreign literature (Anheier and Juergensmeyer 2012).

That is the way how two closely interdependent but anyway different processes are occurring – globalization of knowledge (within the process of the broadly perceived Global Studies) and the formation of global knowledge, mainly due to the development of Globalistics as such (Ursul 2011a). It has been often noted in the literature that in the last two decades Globalistics switched to the research in globalization, paying less attention to the study of the global issues. Besides, if earlier the subject field of Globalistics included only the research in global issues (Dubnov 1991–1992), now most scientists focus their research mainly on globalization. While other global phenomena within the subject field of Globalistics receive insufficient attention, anyway it seems that global issues and globalization constitute the main subject of research in Globalistics.

Meanwhile, when Globalistics was still associated with the research in global issues, globalization was also developing, although in different forms. The global process, which we currently consider as 'globalization', has also been represented to a certain extent in the scientific literature (including Vernadsky's works), however, that process was not yet identified as 'globalization'. And this refers not only to Vernadsky, but to other scientists as well, for instance, Fernand Braudel and Immanuel Wallerstein studied the same process within their own approaches.

However, there also exists quite a strong connection to the term 'globalization'. From that 'terminological point of view' it is often considered that the term was coined by Roland Robertson², who used it for the first time in 1983. He used the term 'globality' in the title of one of his articles, later he analyzed and explained the notion of 'globalization', and then, in 1992 he developed a holistic conception presented in a special study (Robertson 1983, 1992).

If we now reduce Globalistics only to the globalization research, it is quite possible that after a while one or several global processes will start that will draw the most scientists' attention, and then there will be a need to redefine the notion of Globalistics. Otherwise, as it has already been stated above, all other global processes should be shifted to the subject field of Global Studies.

Within current discussions on globalization, most scientists focus their attention on the social aspect, considering that globalization represents a mega-trend towards the unification of humankind and the civilization global entity (Granin 2008). However, the imminent threat of anthropological and ecological catastrophe has demonstrated the simultaneous necessity to solve the full range of social and socio-natural problems as well as to develop

² In this connection, it seems appropriate to state that one of this article's authors used the term 'globalization' in a different context before Robertson (see, e.g., Ursul 1981: 204).

the co-evolutionary relations between the society and environment, *i.e.* humanity's future integration must be combined with ecological safety at the planetary scale. From this perspective, globalization is a global process of humanity's integration and, simultaneously, the formation of the co-evolutionary relations with nature, which can be realized through the global transition to sustainable commitment to noosphere.

The notions of 'globalization', 'globalism', 'Global Studies', and 'Globalistics' derive from the term 'global'. Meanwhile, it is important to note that there exist various interpretations of the term 'global' (Ilyin *et al.* 2012). The work within various areas of Global Studies results in both globalization of science, as well as in the creation of a particular form of scientific-interdisciplinary knowledge, which it is reasonable to call the global knowledge, that is the knowledge that reflects all global processes and systems existing and developing on the Earth within the framework of the planetary-wide unity and evolutionary significance.

Evolutionary Aspect of Global Studies

Vernadsky, who was at the origin of Global Studies, primarily studied natural (mainly geological) planetary (that is global processes), as they are currently named, which until recently have been missing in the scientific discourse in the current research in global phenomena. We also suggest including global natural processes in the field of Globalistics, and that corresponds to Vernadsky's ideas (although, perhaps, it is more relevant to Global Studies in the broad sense). Should one include these processes in Global Studies, and, in particular, in Globalistics? Or should they remain, as before, within the sphere of natural sciences, for instance, of Earth sciences? And should Globalistics limit to only social and humanitarian research?

The issue of inclusion of the global natural processes in the scope of Globalistics escaped scientists' attention for a long time, since many of them were actually engaged in the sphere of social and humanitarian knowledge, especially due to an extensive research in globalization processes. Global Studies should take a certain account of the global natural processes, as their impact on the society's (and vice versa) development is evident. And if they are introduced into Globalistics or Global Studies, they should be introduced not in the form in which they are considered in Earth sciences, but rather in connection with the mutual influence with the humans and humankind.

In principle, the whole range of the existing global processes (and the global systems they form) can be now subdivided into three groups: social, socio-natural and natural processes, which emerge, develop and manifest themselves on the planetary-wide scale (that classification differs from the classification of the global issues). The given classification of the global processes provides a clearly defined evolutionary approach: first, the global processes were natural, then with the development of social stage of evolution there appeared social and socio-natural processes, which Vernadsky considered as the geological anthropogenic process. The application of the evolutionary approach in Globalistics contributes to the formation of the new trend or even of a new stage in the development of Global Studies, which has already been named Evolutionary Globalistics (Ilyin and Ursul 2009).

If the evolutionary approach is applied to Global Studies, there will be a need to provide a more grounded and definite answer to the question regarding the expediency of including natural global processes in Globalistics. Perhaps, it makes sense to include global natural processes only into the subject field of Global Studies in their broad interpretation. However, since they have already been included in Evolutionary Globalistics, they will continue to be represented in that field, even if in the course of time Globalistics appears to be an interdisciplinary but at the same time social and humanitarian knowledge. However, irrespective of these prospects, in principle, it is necessary to determine how the global processes evolve, starting from the global natural processes. The issue is not only in the mutual influence between people and planetary processes, but also the way in which an inanimate nature in its globality resulted in the biological and later in social evolution. Is there certain continuity in the evolution of global processes?

In fact, until the emergence of Evolutionary Globalistics many natural and other global processes were not treated as proper global phenomena, included in the subject field of Globalistics. Within the purview of then significantly differentiated science, those were considered as the subject of only natural scientists' research. In fact, in its fully developed form globalism as a worldview system with prevalence of the planetary-wide characteristics and constraints, has been formulated rather recently in terms of historical time, and not during the Axial Age, when there existed solely 'seeds' of many worldview approaches. However, as with the application of the evolutionary approach to Globalistics there takes place a synthesis of globalism and evolutionism, therefore it was extremely important at first to expand the 'nomenclature' of global processes, at the same time identifying their role in the humankind's further life-sustaining activities.

In the second half of the last century within the process of the global mentality formation there appeared such a worldview-related phenomenon, as globalism, which has a significant and even a determinant influence on Global Studies as well as on the education sector. Globalism is generally understood as the worldview, based on the perception of the Earth as an entirety and the humankind as an interconnected world community, having a common destiny and responsibility for the planet's future. Globalism is a way to view the world, which humankind inhabits, as the global world with prevailing planetary-wide characteristics, including the time-spatial ones. Such a broad perception of globalism stems from the Vernadsky's scientific works.

On the one hand, globalism as a systemic and planetary-wide worldview, significantly expands the time-space features of social and socio-natural interactions to cover the scope of the Earth's biosphere. However, on the other hand, that expansion is limited by the planetary (biosphere-related) constraints, which put an objective limit for the further expansion of social and socio-natural processes and assume their 'contraction' and attaining the holistic nature within the scope of the biosphere (excluding the possibilities for the further cosmic expansion that is still associated with large difficulties). Besides, quite often the spatial, temporal or other constraints presented by the natural factors, are not even mentioned in the works on Global Studies.

Meanwhile, the forming global world attains its entity not only under the influence of the human activities, but also of the natural – global constraints and specific features. The global world appears holistic, although constrained by the socio-natural interactions

on the planet, influencing and even determining all the other processes on the planet. The most evident constraints include not only geographical constraints, defining the limits to further extensive development, but also the exhaustible character of natural resources and global ecological threat, *etc.* Those also include the constraints of temporal nature, associated with spatial constraints, quite often providing the time-related limits to the development of particular processes on the Earth, including the existence of humankind.

Eschatological topics are abundant in pseudoscientific and scientific literature, as well as in mass media (Ursul A. and Ursul T. 2013). Besides, the global warming or the hypothetical forthcoming Little Ice Age are not the only future threats to the planet caused by natural processes. The Earth is expected to be threatened, for instance, by volcanic activity, since the seismic activity is increasing, the main danger will be posed not so much by the volcanoes but by the super-volcanoes (more than two dozens of them are known on the planet with quite rare eruptions [approximately one per 100,000 years]), as well as the danger posed by asteroids and comets. In the late 19th and early 20th centuries Konstantin Tsiolkovsky drew attention to those constraints; he proposed to eliminate them by means of inventing a rocket as a transportation vehicle for the cosmic exploration.

Karl Jaspers (1994) was probably the first among the philosophers who focused on these constraints. The philosopher perceived those constraints manifested via particular terrestrial catastrophes that currently draw attention of the environmental scientists and other experts who are concerned about environmental degradation and depletion of natural resources. According to the German philosopher, natural resource depletion represents the major threat to our planet's future and he believes that: 'carelessness, with which the limited raw materials reserves are used, any way provides a chance to assume the possibility or probability of the full depletion of these reserves in the future' (Jaspers 1994: 159). However, that issue has currently faded into insignificance relative to the necessity to preserve the environment as the natural basis for life and intelligence in the biosphere. Besides, Jaspers speaks not only about the possibility of natural resources depletion, but also the coming cooling down of the Earth, 'which will result in the life decline' (Jaspers 1994: 413).

Globalization, global issues and other global processes closely connected with the cosmic processes emerged exactly due to the spatial spherical form and, consequently, circularity of our planet as a celestial body, global limitation of the globe and its biosphere in which human activities are unfolding. Globalization and a number of other socio-natural global processes have been already 'predetermined' by the natural characteristics of the globe. Globalization proved to be caused by the natural characteristics and peculiarities of the biosphere and even by the cosmic features of the planet as a celestial body. That has defined the spatial-natural specific features of all global processes, including globalization and global issues.

That specific feature of globalism as a particular world perception is not always understood in full. The trends which are expanding and connecting society's fragments are quite often emphasized, although the emerging restrictions and limits turn out to be inherently connected with that spatial-temporal expansion. The spatial aspect of globalism was the first one to be realized. At some point, the Club of Rome put forward a 'spatial-territorial' slogan – 'think globally, act locally' – which some scientists consider almost fundamental

in modern Globalistics (Leybin 2003). Meanwhile, that ‘principle of Globalistics’ already in its brief representation contains an evident contradiction and, in fact, a ‘spatial gap’ between thinking and acting.

Much earlier, Vernadsky noted that the human as ‘the planet inhabitant’

must think and act within the new aspect, not only within the aspect of an individual, family or kin, states or their alliances, but also within the planetary aspect. As any living being, he can think and act within the planetary aspect only in the field of life – the *biosphere*, within a particular planetary cover with which he is inextricably, consistently connected and which he cannot leave. His existence is its function. He takes it with him everywhere he goes (Vernadsky 1991: 28).

As we can see, the scientist realized the role of humankind as the global factor of development but did not divide thinking and practical activities into local and planetary spatial components.

However, in addition to the spatial one, the temporal aspect of global thinking plays an important role as well (Ursul 2012b). When considering the globalism notion it is hardly possible to confine oneself only to the spatial aspect, what in fact happened ‘by default’. Such a ‘spatial-based’ world perception within the framework of globalism breaks the actual interrelations of space and time (Vernadsky always objected this point) in thinking and activity. It is important to identify the specific features of the global worldview. Besides, as it has already been stated above, in terms of temporal aspect one can see that the temporal range, as well as the perspective of the global processes perception (concerning both the past and the future) will be expanded significantly, and the non-linear nature and system interactions between the periods (moduses) of the time will be taken into account as well. The expansion of the perception horizon concerns both the past and the future, not to mention the present, but at the same time there is a necessity to focus on the futurization process, which generates the emergence of the advance mechanisms in all spheres of activity (Ursul 2012c).

The globalization (along with futurization) of the time is less evident than globalization of space, but due to the essential interdependence between space and time, the latter acquires new characteristics, which are not so significant for the ‘pre-global’ world perception. The global approach enables to perceive the humankind future not as a simple and continuing expansion of the Oecumene, but rather introduces fundamentally new non-linear adjustments in the prospects of the evolutionary processes, involving humans.

Although Global Studies included the historical dynamics (the origin and development of global knowledge is sometimes considered as the historical Globalistics) (Ionov 2001; Shestova 2011) nevertheless, the purposeful application of the evolutionary-related perceptions as regards the research in the global processes was not of the focused and systemic nature. In part it was connected with the fact that the subject field of Globalistics was limited by the on-going, that is mainly contemporary social and historical processes (and the focus on globalization), which were not considered (and even sometimes negated) to include the long-term mega-trends and evolutionary retrospectives and perspectives. However, the expansion of the subject field of Globalistics and Global Studies has

required the evolutionary perception of both the currently studied global processes, as well as the new candidates to the same 'role'.

Evolutionary Globalistics (Global Studies) as a form of scientific knowledge is developing as a conceptual interdisciplinary approach to the study of the global processes and systems in the evolutionary perspective and, primarily, on the basis of the results obtained within the research in global (universal) evolutionism. In this connection, it is necessary to note the correlation between historical and evolutionary approaches in Globalistics. Historical Globalistics appears to be rather as a description and, to a certain degree, a factual-temporal reflection of the world dynamics of the human existence, while Evolutionary Globalistics can be considered as the study of the evolution and co-evolution of global processes and of their systemic-synergetic phenomenon – the global development.

Leonid Grinin argues that 'in contrast to the historical method, the evolutionary method of the processes and phenomena analysis considers not the full scope of temporal changes, but rather solely the most important, qualitative changes and transformations (reorganizations), and estimates the directions of such changes, for instance, if they provide for an increase or decrease; a new evolutionary level or a phenomenon similar to the biological adaptive radiation; if the historical-genetic link can be traced, or if it is not possible to ascertain such a connection' (Grinin 2011: 106). The evolutionary approach also differs from the logical one, which is opposed to the historical method.

The historical approach, as an olden one in comparison with the evolutionary approach, is considered more as the description and, to a certain degree, the comprehension of the existential-processional dynamics of human existence. At first, within its scope it did not extend to the nature-related aspects. The evolutionary perceptions were 'entwined' into the historical approach to a certain degree, but they are not emphasized, and those are still to be singled out within the process of creation the picture of the process under study. However, the situation is changing, and if History as a science covers the nature, it will not be the history of the society, but at least, the socio-natural history.

The term 'history' is ambivalent: in its ontological meaning, history is considered as the chronological sequence of already completed events of the human society's global existence. Within epistemological perspective, history is the science dealing with the phenomenon of the human and humankind, all types and forms of human activities that have taken place in time and space of historical process. History is considered as the science about the past: the historical phenomena that are of interest within the history science are, primarily, the events that have happened before, facts, processes (Learning... 2011). However, the historian deals not with the past per se, but rather with the information it left it in the present, which he then analyses, meanwhile the accumulation of information within the material forms constitutes the progress in history (Medushevskaya 2010: 72; Medushevsky 2009).

History as a science appears as a collective memory about the past of the humankind; it performs the function of retaining the knowledge about the civilization and culture. Historians also believe that the retrospective study of the historical process enables to understand humankind's current situations, which is essential for the evaluation of the prospects and place in the universe, its destiny, ways and methods to enable the survival and subsequent development.

Science studies historical processes which to some extent contain information about the evolution of the subject (and of the object) of the research. In addition, the historical approach to a particular degree provides the research into the processes of the emergence, development, maturity, deterioration and collapse of the studied phenomena. The past, in one way or another, objectively always (or almost always) comprises evolution, understood as the development in the broadest sense. However, from the theoretical view, they are not always reflected adequately enough. There have existed a point of view which considered the historical process either as a progress or a regress or a cyclical process – quite recently one have to discard that viewpoint. It became clear that history contains a larger range of development pathways and trends than it was considered by the proponents of humankind's unilinear movement in time.

Historical and evolutionary processes are quite often inextricably connected within History as a science and one can hardly separate them; thus, such a division depends on the objectives of the research performed. When the historical process is considered from the evolutionary standpoint, the focus is on the results of the actual development process, that is, as a rule, on the progress or regress of the object under study.

Today the majority of scientists follow the idea, which has already been stated above, that increasing deterioration-regressive trends are clearly determined in the historical process, anticipating in that way or another 'the end of history'. If we take it not as an allegory, but rather as a possible tragic end of the humankind existence, that, in particular, will mean the coming of the time, when humankind history ends, and, consequently, there will be no historians afterwards (if not to consider the possibility of the existence of their extra-terrestrial colleagues).

The efforts to resist the further deterioration of humankind (*e.g.*, in the form of implementing the global sustainable development strategy) suggest rejecting the perception of the future as a chaotic and linear continuation of the human history. There appears a new perception of the future that does not fit the traditional historical schemes and requires introducing new ideas and approaches with a fundamental evolutionary content into the history science. The purported 'long-term history' can now be considered as a particular futurological 'normative evolution' of the whole human civilization, whose strategic objective will be to sustain life in the natural environment.

Thus, the traditional linear representation of history as a chaotic process is not viable any more, as in order to continue history one should not only describe the events that have happened, but also develop the 'required' future to enable the survival of civilization. The history will continue to focus on humankind's existential-processional dynamics, but will have to take a larger account of the desirable evolutionary direction of the genesis process. The perception of our common safe and sustainable global future will most likely play the central role in this 'evolutionary revolution' in History. History as a science, starting from a certain point, will have to account for the past and the present, considering also the humankind's future destiny – on the worldwide and then cosmic scale. History will be globalized, becoming at least Global History and also will extrapolate not only through the space, but also the time, that is it will be futurized, providing its historical forecasts for the scientific basis of humankind's survival strategies. There will be a necessity to identify negative and positive features of the past in order to strengthen some of them and mitigate

the others, as well as to identify new capabilities for the polyfurcation of the evolutionary-historical development pathways, optimizing the progress trajectories on the way to the desired safe future.

However, one can hardly include the described above ‘long-term history’ in the conventional historical science, including its global version, as the latter deals with the facts and reflection of the events that already took place. The future is devoid of such facts and truths and is considered solely in the form of predictions, forecasts and probable scenarios of the unfolding process under study. However, that gives opportunities to work out the desired (normative) evolution of those processes from the present on the basis of the results, obtained within the virtual investigation of the future. The absence of the ‘factual foundations’ in the ‘futurological history’ (‘historical futurology’) is associated with such a positive factor, as an ability to build the future, providing it with the normative features to a particular degree. This means that when studying the future, the evolutionary approach in its ‘normative-requirement’ variation is represented in a more effective and prominent way and becomes the scientific-historical approach only when a particular future scenario is realized.

Consequently, the study of the future will virtually remain within the purview of the evolutionary approach, while the past and the present of global processes will continue to be the purview of the historical approach in its generally accepted perception. That is why, in order to apprehend the future we will abstain from using the term ‘universal’ or ‘global’ history, generally attributing these notions to the past and the present. Unlike other authors, who make no distinction (or equate) history and evolution, we will focus on the issue of evolution, when referring to the future, although the historians have already been significantly concerned with the emergence of historical forecasts.

The humankind should take concerted efforts to overcome any given global crisis caused by negative global issues and processes. The deteriorative and regressive character of the implications of chaotic evolution of the global issues requires solving them in order to turn the vector of global development to the trajectory of progressive development (or, as it became known more than two decades ago, to the trajectory of sustainable development as a new type of development, preserving the civilization and biosphere). But that requires the formation of a new type of governance – the global governance (Weber 2009; Chumakov 2010; Ilyin 2011). The evolutionary perception of global processes is a natural step in their apprehension; that approach enables their more effective application to maintain global activities and, in particular, global governance.

The evolution of global processes as forms of global development provides a clear picture of the interaction between progressive and regressive processes and trends in the world development. One of the objectives of forming Globalistics (in particular, its applied investigations) will be to identify these evolution trends as global processes in order to provide recommendations about the implementation of effective measures, focused on the mitigation of negative (regressive) implications and promotion of positive (progressive) trends.

When focusing on the study of global development as an evolution of global processes, the latter can and should be considered within a broader temporal interval – accounting not only for those occurring at the present moment, but also those having occurred

in the past and emerging in the future. When we consider a broad spatial-temporal scale, it is possible to identify certain directed changes of the whole range of global processes, mainly as a result of humankind's aggregate activities and the unfolding of the social (socio-natural) stage of the planetary evolution. That value-based ranging is worthwhile not only for the further research, but, in particular, for the practical global-wide activities, as the world community's aggregate activities, focused on searching for solutions to global issues and identifying the positive orientation of other global processes that will eventually determine the destiny of the civilization and biosphere.

With respect to the concerted application of axiological and evolutionary approaches within Global Studies, global processes can be identified as progressive, regressive, or cyclical. The evolutionary vector of global processes forms the conjoint-resultant direction of global development. When developing global activity, it is important to arrange it in such a way that promotes the positive trends in global development and mitigate the negative ones with a focus on the preservation of civilization and biosphere and their coevolution. The transition to the coevolutionary safe and progressive type of planetary evolution can considerably change the character of anthropogenic activities, optimizing it in the anti-entropic direction, as there is a need to take actions preventing the deterioration of the capabilities to meet the vitally important needs of the present and future generations. These prospects can be realized in the process of subsequent global transition to the sustainable socio-natural development.

That refers to the possibility of development of Evolutionary Globalistics as one of the fields of Globalistics or, perhaps, in an even broader perspective – of Global Studies in all their aspects, as well as to the formation of a new stage of development of global knowledge itself. Perhaps, Evolutionary Globalistics will at first develop as one of the branches of Globalistics, along with other branches of Global Studies. However, as the necessity to apply the evolutionary approach within Global Studies becomes clear, the latter will be 'filled' with new development-related ideas, and it is quite possible that these will start a new – 'evolutionary' – stage in the development of global knowledge (as it has already happened in biology).

The evolutionary approach within Global Studies can be considered as a tool for the study of the evolution and coevolution of global processes, as well as of their systemic-synergetic phenomenon – the global development. In this connection, from the temporal perspective there is an ongoing process of the formation of various branches within the scope of Globalistics, in particular, the formation of Paleo-Globalistics and Futuro-Globalistics, along with the currently existing Globalistics (Global Studies of the present), which is actively discussed in the literature but not only from the temporal perspective, but also from others, for instance, the spatial one (Ursul 2010, 2011b).

Conclusions

The further elaboration of Globalistics and Global Studies is characterized not only by scientific, but also by educational and methodological aspects. The scientific and research aspect consists in providing a more profound understanding, development and long-term forecasts of the most effective approaches within the development of Global Studies, and, in particular, Globalistics as a new and fundamental field of interdisciplinary studies, in-

fluencing the general process of globalization of science. The educational aspect is connected with the scientific and research aspect and is focused on the introduction of new knowledge obtained within the conducted research in the training process, firstly, at the Faculty of Global Studies at Moscow State University and other educational departments of the University. This results both in the development of curricula (e.g., Evolutionary Globalistics that is already taught at the Faculty), and in the formation of 'global components' within the already taught conventional courses, creating the links of the subjects and their research methods with global knowledge. This also refers to the establishment of its own educational standards in the field of the most effective application of global processes, which provides the Moscow State University, as the Russian university of the future, with fundamentally new integrative and interdisciplinary development opportunities, diverging to a particular degree from the conventional disciplinary vision of science and education.

With the establishment of the integrated scientific and educational system focused on the development of new global knowledge and its effective usage within the educational processes, the Faculty of Global Studies (Moscow State University) will become the leading development centre not only with respect to Global Studies, but also the leader of education of a new type that is already known as the global education. This also refers to the further globalization of the scientific-educational environment not only within the Faculty of Global Studies, but also within the Moscow State University and the wide spread of these 'global trends' among other higher educational establishments and academic institutions of Russia and, primarily, in the CIS countries. That will promote the recruitment of new foreign and national experts and involvement of higher educational institutions, focused on the research in global issues and contribute to the increasing efficiency of the scientific and educational processes in Russia, as well as an optimal coordination of development trends in Russian and worldwide science and education with the relevant global trends.

References

- Allakhverdyan, A. G., Semyonova, N. N., and Yurkevich, A. V. 2009. (Eds.). *Science under Conditions of Globalization*. Moscow: Logos. In Russian.
- Anheier, H. K. and Juergensmeyer, M. 2012. (Eds.). *Encyclopedia of Global Studies*. Santa Barbara, CA: University of California.
- Beck, U. 2001. *What is Globalization? The Mistakes of Globalism – the Responses to the Globalization*. Moscow: Progress Traditsiya. In Russian.
- Cheshkov, M. A. 1998. Globalistics: The Subject, Problems and Perspectives. *Obschestvennyie nauki i sovremennost* 2: 129–139. In Russian.
- Cheshkov, M. A. 2005. *Globalistics as Science. Essays on Theory and Categories*. Moscow. In Russian.
- Chumakov, A. N. 2010. Global World: the Problem of Management. *Vek globalizatsii* 2: 3–15. In Russian.
- Chumakov, A. N. 2012. Global Studies in the System of Modern Scientific Knowledge. *Voprosy Filosofii* 7: 3–16. In Russian.
- Dubnov, A. V. 1991–1992. *Globalistics*. Novosibirsk. In Russian.

- Faddeyev, E. T. 1964.** Some Philosophical Problems of Space Exploration. *Dialectic Materialism and Issues of Natural Sciences*. Moscow: Moscow State University. In Russian.
- Fedotov, A. P. 1999.** *Introduction to Globalistics: Science Outlines about Modern World*. Moscow. In Russian.
- Granin, Yu. D. 2008.** Globalization or Westernization? *Voprosy filosofii* 2: 3–15. In Russian.
- Grinin, L. E. 2011.** Evolution: Cosmic, Biological, Social – Potentiality of a Single Paradigm. In Abylgaziev, I. I., and Ilyin, I. V. (eds.), *Globalistics as a Field of Scientific Research and Teaching*. Vol. 5. Moscow. In Russian.
- Ilyin, I. V. 2011.** Forming of Global Political Processes and Global Management. *Vestnik Moskovskogo universiteta*. Vol. 12: *Politicheskie nauki* 1. In Russian.
- Ilyin, I. V., and Ursul, A. D. 2009.** *Evolutionary Globalistics (Concept of Evolution of Global Processes)*. Moscow: Moscow State University. In Russian.
- Ilyin, I. V., Ursul, A. D. 2012.** Globalistics and Global Studies: the Problems of Methodology. *Vestnik MGU imeni Lomonosova*. Vol. 27. Globalistics and Geopolitics № 1–2. In Russian.
- Ilyin, I. V., Ursul, A. D., and Ursul, T. A. 2012.** *Global Evolutionism: Ideas, Problems, Hypotheses*. Moscow: Moscow State University. In Russian.
- Ionov, I. N. 2001.** Historical Globalistics: Subject and Method. *Obschestvennye nauki i sovremennost* 4: 123–137. In Russian.
- Jaspers, K. 1994.** *The Origin and Goal of History*. Moscow: Politizdat. In Russian.
- Kostin, A. I. 2005.** *Ecopolitics and Global Studies*. Moscow: Aspekt Press. In Russian.
- Kostin, A. I. 2003.** Global Studies Formation. In Mazour, I. I., Chumakov, A. N. (eds.), *Globalistics: Encyclopaedia*. Moscow: Raduga. In Russian.
- Kozhanov, A. A. 2010.** The Concept ‘Globalization of Science’ as a Subject and Instrument of Sociological Research. In Devyatko, I. F., and Fomina, V. N. (eds.), *Globalization and Social Institutes: Sociological Approach* (pp. 227–240). Moscow: Nauka. In Russian.
- Learning about Past in Modern Culture. 2011.** Panel Discussions Materials. *Voprosy filosofii* 8: 3–45. In Russian.
- Leybin, V. M. 2003.** To Think Globally, To Act Locally. In Mazour, I. I., Chumakov, A. N., (eds.), *Globalistics: Encyclopedia* (pp. 643–644). Moscow: Raduga.
- Mazour, I. I., and Chumakov, A. N. 2003. (Eds.).** *Globalistics: Encyclopaedia*. Moscow: Raduga. In Russian.
- Medushevskaya, O. M. 2010.** Cognitive-Informational Theory in Sociology of History and Anthropology. *Sotsiologicheskiye issledovaniya* 11: 63–73. In Russian.
- Medushevsky, A. N. 2009.** Cognitive-Informational Theory in Modern Humanitarian Knowledge. *Rossiyskaya istoriya* 4: 3–22. In Russian.
- Robertson, R. 1983.** Interpreting Globality. *World realities and International Studies*. Glenside, PN: Pennsylvania University Press.
- Robertson, R. 1992.** *Globalization: Social Theory and Global Culture*. London: Sage.
- Shestova, T. L. 2011.** *Global Historicism and Its Role in the Development of Society Knowledge*. Moscow. In Russian.

- Ursul, A. D. 1964.** *Some Philosophical Issues of Space Exploration*. Moscow: Znaniye. In Russian.
- Ursul, A. D. 1981.** *Philosophy and Integrative-General Scientific Processes*. Moscow. In Russian.
- Ursul, A. D. 2008.** Globalization, Safety and Sustainable Development. *Vek Globalizatsii* 1: 17–22. In Russian.
- Ursul, A. D. 2010.** Formation of Cosmo-Global Studies. *Filosofiya i kultura* 11. In Russian.
- Ursul, A. D. 2011a.** *Global Knowledge and Global Education (Evolutionary Approach)*. Lecture. Krasnoyarsk: SFU. In Russian.
- Ursul, A. D. 2011b.** Cosmo-Global Studies in Terms of Information Hypothesis of Exploring the World. In Abylgaziev, I. I., and Ilyin, I. V. (eds.), *Globalistics as a Field of Scientific Research and Teaching*. Vol. 5. Moscow. In Russian.
- Ursul, A. D. 2012a.** Globalization of Right and Global Right: Conceptual-Methodological Problems. *Pravo i Politika* 8: 1284–1297. In Russian.
- Ursul, A. D. 2012b.** Formation of Global Thinking: Spatial Temporal Perspective. *Prostranstvo i Vremya* 3. In Russian.
- Ursul, A. D. 2012c.** Phenomena of Futurization and Advanced Reflection. *Filosofia i kultura* 10: 33–45. In Russian.
- Ursul, A. D., and Ilyin, I. V. 2010.** Global Studies and Political Sciences: Formation of Evolutionary Approach. *Pravo i politika* 2: 2097–2105. In Russian.
- Ursul, A. D., and Ursul, T. A. 2013.** The Future of Mankind: Apocalypse or Further Evolution? *Politika i obschestvo* 2. In press.
- Vernadsky, V. I. 1991.** *Scientific Thought as a Planetary Phenomenon*. Moscow: Nauka. In Russian.
- Weber, A. B. 2009.** Modern World and the Problem of Global Management. *Vek Globalizatsii* 1: 3–15. In Russian.

Categories, Models and Forecast of the Global Configuration

Olga G. Leonova

The article discusses some theoretical aspects of the forming configuration of the global world and describes the notions of 'pole', 'center of power', 'hierarchy' and 'framework' with respect to the global world, as well as reveals its three-level structure. The forecast is given with respect to the possible models of the global world and cycles of development of global political system. The Shanghai Cooperation Organization is examined in terms of its possible claim to the status of the center of power of the global world.

Keywords: *pole, center of power, multipolar, polycentric, the hierarchical level, models of the global world, cycles of development of the global world system, the Shanghai Cooperation Organization.*

Accelerating and deepening processes of globalization result in qualitative changes of the world structure. This finds its expression in the emergence of new categories to characterize that structure. However, those categories have not yet obtained an institutionalized status.

Thus, 'a pole' and 'a center of power' are essential categories of Political Globalistics which are still to be institutionalized and clearly defined.

In the encyclopedia *Global Studies* (Mazour, Chumakov, and Gay 2006), a rather short entry contains the following definition: 'Multipolar world is an imaginary geopolitical structure of the world governed in a balanced manner by several poles of power and might'.

Encyclopedias and dictionaries often describe the notion of 'a pole' with a certain characteristic of unidimensionality (a geographic pole, the Northern (Southern) pole, a magnetic pole, an equilibrium pole, *etc.*) with a single typologically dominant feature. Therefore, we suggest that the following types of poles should be distinguished: a military pole, an economic pole, a political pole, and a civilization pole. Each of those poles has its own characteristics, which, in their turn, may be used as criteria to attribute a country to a particular category.

An economic pole. Its status is determined by an array of the following factors: high GDP; economic efficiency; development of market relations; high investment activity within a country and general investment attractiveness of a region; a developed social and economic infrastructure; achieving of the best possible standards and quality of life under the circumstances; policies oriented towards innovations and high technologies; a balanced social, ecological and economic system within the country; assurance of sustainable and balanced reproduction of social, economic, resource and ecological potentials of a region; high competitiveness of a region in the world system.

Currently, the 'G-7' countries, as well as rapidly developing countries of the Asian-Pacific Region and BRICS can be considered as economic poles.

A political pole. Membership of the UN Security Council is considered as a crucial requirement for a country to qualify for the status of a political pole. Besides, one can distinguish the following characteristics of a political pole: ability to control a vast geopolitical space, abundant opportunities to retain influence over such a territory, evident indicators of political self-sufficiency.

The basic requirement for the maintenance of a political pole is a stable political situation within the country combined with its sustainable development, provided by the optimal quantity of controlled territory, including certain key (geostrategic) areas. The political pole is characterized by such essential features as political orientations and vectors of nation-building within the country, and also by the country's territory size and population. The vast territory rich in natural resources and large population numbers should be considered as prerequisites for a country to become a political pole, to which other countries will gravitate, and around which other nations and countries will group in order to gain economic benefits or adapt the political environment and follow that country.

A military pole. The nuclear-weapon states are usually considered as military poles. The possession of nuclear weapons provides opportunities of intensive impact on other countries and on international relations system due to the mere existence of nuclear weapons and threat of its use, to the demonstration of political will and the authorities' determination to conduct armed conflicts if necessary. However, even the fact of possession of such powerful weapons does not reflect to a full scale the notion of 'a military pole'. It is a number of statutes (the military doctrine, the national security doctrine, the country's foreign policy concept, the official statements and actions of the country political leadership, the public opinion towards possible military force, *etc.*), institutions and environments that define the military force as the state's major political tool that qualifies a country as a military pole.

Such nuclear weapons countries as India, China, Pakistan, North Korea, *etc.* can be also considered as military poles.

A civilization pole is a country or a group of countries that has a distinctly evident civilization identity and a powerful potential for social and cultural influence on other countries. A civilization pole can be represented by a group of countries that have common cultural and genetic codes within a single civilization matrix. Western Europe, China, India, Japan, Iran, Turkey and other countries with a distinctly prominent national identity and national project can certainly be called civilization poles of the world system.

Taken together, all the above mentioned factors may prove to have a many-sided and significant influence on the position, rating, authority and power of a state in the multipolar world. When most features of economic, political, military and may be civilization poles can be found in a single state or in a macro-regional formation then we can define the respective entity as a center of power. In the contemporary world system, there are a few macro-regional associations that have been rapidly increasing their material, economic and political resources and will qualify for the status of a center of power in the nearest future.

Contenders for the status of a center of power are countries that have consolidated their resources and are on the way to establishing an economic, political and military strategic union.

To the contenders claiming to become a center of power, one can attribute regional integration-focused associations, such as MERCOSUR (Common Market of the Southern Cone), ASEAN, CCASG (Cooperation Council for the Arab States of the Gulf), South African Development Community, *etc.* They all qualify for the status of a center of power, but due to a complex character of integration processes and a number of issues arising in this connection, none of them has managed to reach the level of a full-scale economic and political alliance.

Unions and blocks claiming the status of a center of power (ASEAN, UNASUR, BRICS, and the CIS) are still at the stage of mainly economic integration, while the political integration encounters considerable objective and subjective obstacles.

In this context, the notion of the 'unipolar world' seems to be insufficiently precise. In the contemporary global world system one can find numerous heterogeneous poles: military, economic, and civilization ones. That is why nowadays we can already claim the existence of the multipolar world. However, there is only one power that has managed to combine the characteristics of the most poles – the USA. It is the USA that is a center of power in the modern world system and a global leader. That is why, it would be more precise to denote the modern world system as a monocentric one. However, with the account of the well-established traditions and widely used speech patterns, we shall rather use the terms 'pole' and 'unipolar world'.

There is no doubt that the European Union exhibits the properties of economic, military and civilization poles. However, its status as a center of power in the world system depends on the degree of independence of domestic politics and foreign policy decision-making from the USA. The recognition of the European Union as a center of power allows speaking about the existence of a bicentric (but at the same time a multipolar) model of the world system.

With the advancing globalization processes, with the emergence of new poles and contenders to centers of power, it is possible to forecast that the future configuration is bound to become the one of the polycentric world.

Thus, the world system has its hierarchy of actors including: centers of power, contenders to the status of a center of power, economic, political, military and civilization poles.

The *rivalry* among the structural elements of the globalizing world for the place in the hierarchy will determine the evolvement of political processes and future scenario of the world system development.

Even today it is evident that the future configuration of the world system will be:

- multipolar, with a considerable number of poles (economic, military, civilization, and, to a lesser degree, political ones, since the political independence and self-sustainability can be hardly achieved within the global polycentric world);

- polycentric. It will have several centers of power represented by the USA and other global structures (the EU, UNASUR, probably ASEAN, BRICS or the Eurasian Union).

Thus, the future structure of the multipolar world can be described as a configuration of the following structural elements:

- *the first hierarchy level*: the centers of power within the multipolar world: the USA, the EU, China;

– *the second hierarchy level*: macroregions with a high economic integration and a rather prominent political component which claim to become the centers of power of the multipolar world in the future. Here one can mention macroregions, led by the organizations, such as ASEAN, UNASUR, CCASG (Cooperation Council for the Arab States of the Gulf), South African Development Community, *etc.*;

– *the third hierarchy level*: Japan, Russia, India, Brazil, South Korea, Singapore, Australia, Turkey, Malaysia, Chili and other countries. Even today these countries can be considered the economic, political or military poles of the multipolar world.

Thus, we can distinguish **three models of the world system**: the unipolar, bipolar and multipolar world.

There is a certain discrepancy between the notions of ‘multipolar’ and ‘polycentric’ world. The term ‘multipolar’ is more widespread today and is extrapolated to the future configuration of the world system.

However, today the world is already multipolar, as there exist economic (rapidly developing countries with high economic indicators), military (countries at least having nuclear weapons at their disposal) and civilization poles (countries with a distinct civilization identity).

The term ‘polycentric’ world seems to be a more logical definition of the future structure of the world system – the world containing several centers of power, each combining several types of poles.

The relationships between structural elements of the world system can be associated with the market competition phenomenon. Thus, the market competition mechanism can be extrapolated (with certain reservations and the account of corresponding correlatives) to the environment on the global political market. For instance, such a significant correlative is represented by the subjective factor of global political processes that has a more prominent character on the political market in comparison with the economic market.

First, the rivalries between global actors of the same ‘league’ seem to be inevitable.

The competition between global actors seems to be an effective trigger for deepening of integrative processes both at the regional level, as well as at the level of the inter-state associations, such as ASEAN.

The aspirations to retain the achieved status in the global hierarchy, to secure the country's own political and economic niche, to outstrip a competitor, to keep pace with the general rates of globalization processes – all these are vigorous drivers for further intensification of integration and alliance-focused relations by means of signed treaties and the creation of supra-national governance bodies. It also mobilizes the potential of political elite and business communities within the countries and promotes understanding of the necessity and even inevitability to partially sacrifice the country's authority, tactical economic interests and even partially its sovereignty in order to achieve strategic, and in all respects, ‘global’ objectives.

Second, the variety of the leading actors and their positions in the world system leads to the emergence and automatic maintenance of competitive environment.

Due to its nature, the multipolar and polycentric global system gives rise to competition, which makes it possible to consider the global competition principle as inherent to this system and its natural and inevitable attribute.

Thus, a regional power / regional leader can encounter competition on the part of other countries which are 'axial' within the given region. Several regional powers/leaders can face plenty of competition with each other, with countries-poles of the world system or with contenders to the status of a center of power.

Such competitive practices manifest in the competition for sales markets and for the spheres of political influence and can result in the involvement of new members in one's orbit or 'drawing' countries from one alliance (block) to another.

The evolvement of global processes, their essence and development vector are largely determined by competition among the players in the global arena, their attempts to maintain and affirm their status in the global hierarchy, the claims to a higher ranking also through the actions (*i.e.* a system of economic, political, military and ideological measures) aimed at involving new allies and members to its own block.

Using the notions, it is possible to endeavor at forecasting the future configuration of the world system. However, one should bear in mind that a forecast is rather a suggestion about a possibility, than the future itself. A forecast does not predetermine any event, but rather informs of it.

One can expect that the competitive rivalries between structural elements of the world system will lead to the cyclic alterations of the world system models.

Those models are represented by the unipolar world, bipolar world and multipolar world (the widespread and conventional terms). However, as has been stated above, it seems to be more accurate to apply the notions of the monocentric, bicentric and polycentric world.

Yakunin, Bagdasaryan, Kulikov and Sulakshin in their book 'Variation and Cyclic Regularity of the Humankind Global Development' (Yakunin *et al.* 2009: 289–307) proposed and substantiated the concept of cyclic development through the description of the pendulum cyclic regularity in the context of discreet and conservative modernization models. The concept of the cyclic pendulum is of fundamental nature, which enables to extrapolate it to the world system.

The competition mechanism will make the world system models alternate.

The bicentric world can be considered as an equilibrium point. The international system balance was disturbed with the end of the 'Cold War' period, the collapse of the USSR and its disintegration. The bicentric world was substituted by the monocentric world with the USA as a global hegemon. Today this model demonstrates clear signs of crisis, which is much spoken about.

The phase of the monocentric world will change to the bicentric world – evidently with the USA and China as its centers. (The European Union will also be a center of power, but within the system of international relations it generally aligns with the USA).

Within a certain period of time (which is different for individual international actors) the contenders to the center-of-power status within the world system will be able to strengthen their positions and build up their own alliances and blocks. That is why the phase of the bicentric world will change to the polycentric world.

This will be the first cycle of the global world system's development. Among the major actors of the cycle one can, probably, mention: ASEAN, Arab World (Islamic Caliphate),

‘Great Turan’ (Turkey’s geopolitical project based on the pan-Turkism ideology); UNASUR and others.

The competitive rivalries will gradually reveal leaders and outsiders among those centers of power. The stage of the multipolar world will come to its end. The ‘pendulum’ will start its reverse motion and the global system will again strive to recover the balance within the framework of a bicentric world model. The pendulum movement in the direction of the bicentric world will indicate the beginning of the second cycle of the global system’s development.

What countries or centers of power will be the future leading tandem within the bicentric world in the second cycle? There is no doubt that the USA will remain one of the two actors and one of the winners in competitive rivalries within the multipolar world will oppose the USA.

That situation can be presented as follows. The USA versus X1, or X2, or X3, or X4, *etc.*, where X1 is China, X2 is Russia, X3 is ASEAN, X4 is UNASUR, X5 is the project ‘Arab World’ (Islamic Caliphate), X6 is the project ‘Great Turan’.

However, the history repeats itself, and according to the famous statement, ‘Bolivar cannot carry double’, the pendulum will once again start moving to the monocentric world. One of the two global players will consolidate the status of a hegemon and the global world leader.

In order to extricate the global world from a static state, in addition to the internal factors (competition) there should be an external trigger or ‘exogenous penetrations’. A global scale catastrophe – an international conflict, an ecological or space catastrophe, a global financial and economic crisis, *etc.* – can become such an external trigger.

The stagnation of the self-contained system inevitably leads to a crisis of the monocentric world which becomes a watershed for changing the global system movement vector. The global leader’s monopoly triggers the mechanism of self-destruction of the unipolar world and drives the forces which initiate the reverse movement of the global pendulum. The cycle pattern ‘bicentric world – monocentric world – bicentric world – polycentric world’ will repeat again and again.

Within that cycle the model of ‘the bicentric world’ should be regarded as a situation of the system’s maximum possible stability. The models of ‘monocentric world’ and ‘polycentric world’ should be regarded as the maximum amplitudes of the global pendulum movements. Upon reaching the maximum amplitude, the global pendulum starts to reverse, changing the vector of the global system development to the opposite one.

Such an approach enables to identify the development cycles of the world system, to forecast the vector of its transformation, to develop the strategy for a country’s adaptation to the world system, and identify the most effective geopolitical priorities.

In general, the cycles of pendulum oscillations of the global system should be considered as a historically and subjectively determined phenomenon.

The Shanghai Cooperation Organization (SCO) has a great potential to become such a center of power in the future.

There is a certain historical background for the creation of the Shanghai Cooperation Organization. The SCO’s predecessor was the so-called ‘Shanghai Five’ (Russia,

Kazakhstan, Kyrgyzstan, China, and Tajikistan), which was formed as a result of signing 'Treaty on Deepening Military Trust in Border Regions' in 1996. The organization came to be called the 'Shanghai Five' named after the city where the agreement had been signed.

Then, a number of summits in Almaty (1998), Bishkek (1999), and Dushanbe (2000) took place, which showed the need for joint discussions on the wide range of issues concerning foreign policy, economy, environmental protection, culture, use of water resources, *etc.* In course of time, the system of the summits and consultations led to the formation of a new regional association – the Shanghai Cooperation Organization.

The development of the Shanghai Cooperation Organization as a regional organization has gone through several stages. At the first stage, on June 14–15, 2001 in Shanghai the meeting took place with the participation of then existing six member countries – Russia, China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, where the establishment of the SCO was announced. At the summit the Declaration specifying the organization's major objectives was issued. The following objectives were announced: to maintain and secure peace, safety and stability in the Middle Asia, as well as to develop cooperation in political, trade and economic, scientific and technological, cultural, educational, energetic, transportation, ecological and other spheres. The Convention on terrorism, separatism and extremism was adopted at the summit.

At the second stage, in June 2002 in St. Petersburg the heads of the SCO member states met and signed the Charter of the Shanghai Cooperation Organization, Agreement between the Member States of the Shanghai Cooperation Organization on the Regional Anti-Terrorist Structure and the Declaration of the SCO member countries. Those documents expounded purposes and principles, organizational structure, form of operation, cooperation, orientation and external relations, marking the actual establishment of this new organization in the sense of international law.

At the third stage, in May 2003, in Moscow the third top-level meeting took place. At that meeting the documents were worked out that define the procedure of the SCO main bodies and the budgeting mechanism.

Today, the SCO is a regional international organization, including six states – Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan and Uzbekistan. The member states cover an area of over 30 million square kilometers, which accounts for 61 per cent of the land mass of Eurasia. Its total demographic potential accounts for 1 billion 455 million people, that is a quarter of the world's total. The economic potential of the SCO includes not only large-scale economies of China, Russia and Kazakhstan, but also the intensively developing economies of Kyrgyzstan, Tajikistan, and Uzbekistan.

The working languages of the organization are Russian and Chinese. The headquarters of the organization are located in Beijing.

Sri Lanka and Belorussia have been granted the status of 'dialogue partners'. Egypt, Nepal, Serbia, Qatar, Azerbaijan, Turkey and other countries show clear interest in the establishing contacts with SCO.

The SCO's main objectives are the following: to secure stability and safety in the region; to fight terrorism, separatism, extremism, drug trafficking; to intensify cooperation with the Central Asian countries, including the development of economic cooperation, energy-sector partnerships, scientific and cultural interaction; to maintain the secular regimes

in power as an alternative to radical Islamism; to accelerate the economic development of the Central Asian countries, which is considered as the basis for political stability.

The Shanghai Cooperation Organization has developed intensively and made great progress. Since it was set up, the SCO has turned into an active and respected organization with many countries showing their interest in it.

The promotion role of the Shanghai Cooperation Organization (SCO) is among Russia's major strategic interests. The achievement of that objective is connected with the necessity to optimize the activities of this international organization.

The international heft of the organization is determined not only by joint demographic and territorial potential of the member countries, but also by the strategic partnership of the two nuclear powers and the permanent UN Security Council members – Russia and China. This determines the role of the SCO in establishing collective security both in the Middle East, as well as the Asia-Pacific Region.

On the one hand, the SCO has been in line with its members' geopolitics interests, such as ebbing of the American influence within the region, establishment of the modern organization of a new type, building a multipolar world.

On the other hand, the geopolitical interests of Russia and China with respect to a number of issues have come into conflict. Thus, China seeks for new sales markets for its products and new energy resources. Russia uses the SCO as a counterweight to the US and EU's influence on the Middle East countries. The rest of the members under China's or Kazakhstan's guidance are eager to strengthen the economic cooperation with the West.

Those contradictions, as well as difficulties associated with the growth of a young international organization, have resulted in a number of issues and difficulties in the SCO activities.

1. The issues of performing similar functions by the simultaneously existing structures. In the post-Soviet space, there exists the CIS Anti-Terrorism Center (the ATC-CIS), acting as a coordinating body for the special services of the CIS member countries. Since 2004, within the framework of the SCO an analogous operational body – the Regional Anti-Terrorism Structure (RATS) – coordinates counter-terrorism cooperation among the SCO member states. The two structures performing similar functions have brought up a necessity to differentiate their objectives and coordinate the undertaken efforts.

In the post-Soviet territory, in addition to the SCO, there are other multilateral associations successfully dealing with economic cooperation issues: the EurAsEC, the CIS, and the Customs Union. Against this background, it would probably be more appropriate to find the ways for all those structures to interact with each other in harmony without unnecessary competition or functions duplication, for the sake of promotion social and economic development of every country in the region.

2. The SCO member countries have different interpretations of terrorism and identification of the priorities in that area.

In China, the terrorist threat is not generally associated with the Islamic factor. Here that issue is rather associated with the problems of separatism (including the Uyghur separatism, the Tibet issue). Meanwhile, the root cause of terrorism is considered to be poverty of the population in underdeveloped countries, wherefrom the terrorist threat originates. That is the reason, why for China the anti-separatism measures are much more

important than the anti-terrorism ones. While for Russia the priority objective is exactly the struggle against the international terrorism.

3. The SCO member countries also have quite different interests and priorities in their foreign policy activities. China perceives the economic component as the priority, in particular, the economic sphere, economic cooperation and establishment of a free trade area within the SCO. China considers poverty and economic underdevelopment as the social catalysts of extremism and terrorism, so the measures should be taken to eliminate their social and economic 'roots'. According to the Chinese part, the most effective means and methods to prevent terrorism and extremism are free capital and goods flows which help to eliminate their social and economic causes. Economy is the least covered area within the SCO activity. There are few multilateral economic projects. It is mainly the bilateral cooperation programs that are implemented, but which can be generally implemented without the SCO involved. Today, one of the SCO's main objectives is to intensify economic interaction. The involvement of such large economies as those of India and Pakistan could promote economic cooperation and trigger the development of multilateral projects.

4. There are certain discrepancies in views on the military component of cooperation. Some of the SCO members would be interested in establishing a sort of Eastern military block on the basis of the organization as a counterbalance to the NATO. However, China thinks that the SCO should not be transformed into a military block, emphasizing a non-block focus of its foreign policies.

5. Some countries of the SCO region cannot be regarded as economically successful and intensively developing ones. Here one can observe some signs of domestic political instability, the impact of the global financial crisis is hardly mitigated yet, there are economic and social problems, and in some countries ethnic conflicts have persisted.

6. Also, the SCO structure itself should be improved. The Secretariat of the SCO, located in Beijing, is an insufficiently independent and self-sufficient body. It is rather a conglomerate of the member countries representatives, who mainly report not to the SCO General Secretary, but rather to national ministries. That is why every minor issue needs to be aligned with the countries' Ministries of Foreign Affairs, and this decreases the organization's efficiency.

7. The consensus-focused method of decision-making, in theory, gives every member country an opportunity to virtually block cooperation in economic, political or cultural areas. That leverage, for instance, is applied by Uzbekistan, which refuses to participate in educational programs and to mutually recognize higher education diplomas. The decision-making procedure should not prevent development of cooperation between organization members if any single organization member is uninterested in joint projects.

8. The financial facilities of multilateral projects implemented by the organization should be generally improved. The SCO budget is quite limited, which requires the establishment of the organization's consolidated financial and investment resources and implementation of a number of large-scale projects, which would evoke a positive international response.

9. The possible further expansion of the SCO will have controversial consequences.

There is an increasing interest in the SCO, primarily, on the part of the observer states. Thus, in 2006, Pakistan submitted a request to join the organization as a full-time member, Iran qualified for a full membership in 2006 and 2007, and India – in 2010.

The organization's Charter underlines that the SCO membership is open. However, until recently the SCO member countries and experts have been convinced that the growth of the number of member countries and admitting any new members should be suspended. They justified this position with the need to primarily strengthen the organization in its current composition, arrange the operating mechanisms, gain experience; besides, there were no rules for admitting new members.

In May 2006, at the meeting of the SCO Council of Ministers of Foreign Affairs there was established a tacit consensus on the moratorium on admitting any members. That moratorium was confirmed at the meetings of the Council of Heads of State of the SCO in June 2006 in Shanghai, as well as in August 2007 in Bishkek and in June 2010 in Tashkent.

However, that moratorium contradicted the organization's Charter, proclaiming it to be an open organization. In order to mitigate that contradiction, in 2009 in Yekaterinburg there was introduced a new status – ‘a dialogue partner’, which was granted to Sri Lanka and Belarus. In June 2010, the Regulations on the Admission of New Members to the SCO were approved at the meeting of the Heads of States of the SCO Member States in Tashkent, and also they worked out criteria for a contender to qualify for a full-member status. According to the Regulations, a state qualifying for a SCO full member should be located in Eurasia, have diplomatic relations with all the SCO countries, maintain active trade and economic relations with them; have a status of an observer country or a dialogue partner, not be under any sanctions of the UN Security Council (this requirement excludes an active contender – Iran); not be engaged in an armed conflict with other state or states. Not all the SCO member countries agree with those criteria. For instance, Tajikistan was against the criterion of absence of any sanctions of the UN Security Council, as in line with its cultural and historic traditions it has supported Iran's bid. However, the acceptance of Iran as a member of the SCO could become a cause for confrontations with the West, so Tajikistan had to make a concession. Today Russia is the major proponent of the organization expansion.

The accession of India – an effectively and dynamically developing country – to the SCO could disturb the geopolitical equilibrium within the organization, downgrade the role of Russia with its lower economic development rates, and relegate it to the background. In addition, the existing territorial and political conflicts between China and India would bring the conflict issues into the SCO, which might hamper its further development. Meanwhile, in the area of the SCO geopolitical development, the territorial ‘gaps’ have remained, which could be ‘covered’ by Mongolia and Turkmenistan. However, these countries have not been active in submitting the application for membership in the SCO.

10. Lack of information about the organization also prevents the improvement of its efficiency. There is still too little information about the SCO, both abroad and within the SCO member countries. The publications covering the SCO in the Western mass media can be characterized as biased and generally would use such definitions as ‘anti-American alliance with a military component’, ‘the Eastern NATO’, ‘club of despots’ or ‘Potemkin union’, *etc.*

In general, the international community perceives the SCO as a club of countries whose activities generally confine to meetings and joint statements. Foreign experts and analytics often consider the SCO as a forum for China and Russia to coordinate their interests in Central Asia.

Unfortunately, one should acknowledge that the SCO has not become a significant international mechanism yet, comparable in terms of influence with ASEAN or APEC.

At present, the following operational recommendations can be provided to tackle the identified problems:

- to correct the SCO's activities in order to enable the organization to achieve the level of maturity;
- to change from an extensive to intensive and harmonious growth;
- to identify the essence of the notion 'the SCO space'. (This can be defined as a adjustable area including the territory of the observer countries and dialogue partners, or as the territory of the six founding countries, covering the core of the Eurasian continent – 'heartland');
- to evaluate the expediency of transforming the SCO from a regional organization (with a clearly defined responsibility area) into a global one through the incorporation of new countries. It should be taken into account that the expansion of the organization core will result in the new space configuration;
- to clarify legal, financial and organizational conditions concerning the accession of new members;
- to define the 'critical mass' of the core, which the organization is able to survive without a danger of self-destruction and remaining in line with the core of Eurasia;
- to harmonize activities in the major areas of cooperation;
- to strengthen solidarity in political sphere on the basis of combination of nation-state interests with general interests of the organization;
- to expand the foundations not only concerning cooperation, but also co-development in the economic sector;
- to promote the feeling of commonality in cultural and humanitarian dimension;
- to improve the mechanism for coordinating the interests. To enable a wider employment of the identified in the SCO Charter non-mandatory character of the full consensus with respect to certain events and projects with a practical focus;
- to perform operations 'at different speeds', which assumes the outrunning efforts on the part of member groups as regards some particular issues and projects;
- to develop and implement the SCO's multilateral projects (economic and humanitarian cooperation), which could be developed on the basis of bilateral projects through gradual involvement of other members ('two plus' approach);
- to abstain from the accelerated integration in favor of the project activities. That gives priority to the projects in the field of the information-transport infrastructure and ecological energetics.
- to set up a two-level structure of the SCO (on the model of ASEAN), which would make the long-time and more developed member countries to be integrated faster than the newly joined ones;
- to promote relations with the international community, primarily, with the UN, as well as the Organization of Islamic Cooperation;

– to maintain cooperation on issues of mutual national interests.

There is no doubt that the SCO has gained a significant potential of political influence not only within its own region, but also in the world system in general.

First, the organization is an aggregate of political, economic, military, as well as strategic and cultural potential of China, Russia and the states that were created from the break of the Soviet Union.

Second, the SCO has a number of advantages, enabling its member countries to significantly increase the rates of economic cooperation. China's financial and investment opportunities, Russia's technological potential, the abundance of natural resources in the Central Asian countries – all these provide an opportunity to implement large-scale projects in such areas as transportation, energy production, infrastructure construction, telecommunications, food security and meet the interests of most member countries.

Third, the SCO has a number of peculiar features which should be emphasized within international political communication.

One should point out the following four 'NOTs' which emphasize the uniqueness of the Shanghai Cooperation Organization:

1. When creating the SCO, the six founding countries believed that it would *not* be a mere functional structure, but something more. The organization's major objective, as identified in the SCO Charter, is to strengthen mutual trust, friendship and good neighborly relations between the member countries. In fact, today most member countries have managed to build up strategic partnerships.

2. The SCO is *not* a political-military alliance so the cooperation between defense ministries is carried out exclusively in the field of anti-terrorism objectives.

3. The SCO activities are *not* aimed against any third parties; it is alien to ideological and confrontational approaches to tackling urgent issues of international and regional development.

4. The SCO is *not* a block association. It is a new trend in international politics. The SCO is just the example of how non-block associations can provide international security.

For the sake of further optimization of the SCO activities, one should highlight the features and positive prospects of the organization that can be introduced into international politics. Among those features one can mention the following:

1. In course of time, it becomes more evident that the block politics does not have any viable prospects. As an opposite to a military block with its limited formats and non-transparency, the SCO offers a multilateral network diplomacy involving qualitatively new forms of interactions between countries.

2. The main trend of the SCO's development is emergence of a new, network-based regional architecture, as well as the establishment of far-reaching partnership network within multilateral associations.

3. The SCO in its practical activities embodies a qualitatively new philosophy of state-to-state partnership, which is already known as 'the Shanghai spirit'. Its major features are the following: equality of large and small countries, mutual trust, and respect for diverse civilizations, cultures, religions, forms of state structure, development concepts, and aspirations to mutual prosperity. On the basis of this philosophy a unique model of effective and harmonious international relations within the multipolar world has been forming.

In order to build up an appealing image of the SCO as a possible contender to become a center of power within the global system, there is a need to aspire to implementation in its activities of the following features:

- the organization should be strong, consolidated, multi-profile, effectively functioning, achieve its objectives and solve tasks, and recruit new members;
- the organization should effect a full control over regional security;
- the organization should seek for development of multilateral economic cooperation and endeavor to promote region-wide common prosperity;
- the organization should provide opportunities for friendly human communications and wide humanitarian cooperation among the citizens of the SCO member countries;
- the organization should be open to interactions with all other peaceful countries, and play an important role in the world.

Thus, the Shanghai Cooperation Organization is the most striking example of the emerging elements of the global multipolar governance at regional levels.

References

- Mazour, I. I., Chumakov, A. N., and Gay, W. 2006. (Eds.).** *Global Studies. International Encyclopedic Dictionary*. Moscow – St-Peterburg – New york: Dialog; Elima; Piter.
- Yakunin, V. I., Bagdasaryan, V. E., Kulikov, V. I., and Sulakshin, S. S. 2009.** *Variation and Cyclic Regularity in Humankind Global Development*. Moscow: Scientific Expert. *In Russian*.

Methodological Foundations of Global History

Tatyana L. Shestova

This article deals with methodological characteristics of Global History as one of the research areas formed on the wave of the crisis of classical historiography and philosophy of history. The article highlights the differences between the foundations of classical historiography (such as nomocentricity, linearity, progressivism, Europocentrism, national-state level of consideration of events, disciplinary focus, etc.) and their variations in Global History. The foundations of Global History are: non-linearity, interdisciplinary focus, supra-national level of consideration of events, socio-natural dynamism, long durée concept, openness of discourse, etc. The role of global historicism as Philosophy of Global History is examined.

Keywords: *methodology of Global History, global historicism, Philosophy of Global History, the subject of Global History, the postclassical science, long durée, supra-national level of events, non-linearity, interdisciplinary focus, socio-natural dynamics.*

Global History is one of the research areas in historical studies which was formed in the late 20th century on the wave of the crisis of classical model of history and philosophy of history.

History as a Science

History is a science studying the past of humankind. A systemic accumulation of the knowledge about the past existed as early as in the 3rd and 2nd millennia BCE in the Bronze Age Eastern civilizations (Egypt and China). However, the analytical research of the past on the basis of the rational critics of historical sources started with the works of the Ionic logographers (the 6th and 5th centuries BCE, Ancient Greece). It is from that time that history started to be formed as an analytical science. The term 'history' (meaning in the Ionic dialect 'research, cognition', see Takho-Godi 1969: 447) was introduced by the 'Father of History' Herodotus (484–425 BC) in his famous work *The History of the Greco-Persian War*.

All historical concepts are based on the ideas about the character and trends in the changes occurring in human society. The socio-critical analysis is the major foundation of all historical works.

Every epoch provides its own interpretation of the past on the basis of the dominant world views.

History obtained its classical form in the epoch of Modernity (the 17th to 19th centuries). The original *principles of the classical concepts* were the following: nomocentricity (belief in regularity and consistency of the historic process), determinism (causality of some

facts by other facts), logicity, linearity, progressism (ideas of the universal direction, increasing character of the historical process), ratiocentrism (focus on reasoning). An important feature of the classical concepts was Europocentrism. The main subject of classical historiography is the history of nation-states. In general, classical historiography became a theoretical justification of the modern (*i.e.* bourgeois and liberal) society and its role in history.

At the turn of the 19th and 20th centuries the crisis of the classical science started, including the crisis of classical historiography. The epoch of Modernity had come to an end, which resulted decline of great New European doctrines (by Hobbes, Voltaire, Smith, Hegel, Marx), that defined the social mind-set, including the historic thought in this period.

In the 20th century, a need emerged to rethink fundamentals of classical philosophy of history and classical historiography. The world wars, socialist revolutions, collapse of colonialism and other global-scale events did not fit into the framework of classical concepts. Starting from the mid-20th century an active search for new ideas and trends in the social sciences and humanities began. Historical sciences needed a new theoretical and methodological substantiation.

The French Annales School played a key role in the development of the historical sciences in the 20th century. Marc Bloch, Lucien Febvre, Fernand Braudel and others expanded the traditional (focused on the nation-state level) range of problems and terms in historical studies calling for inter-disciplinary cooperation. Expanding the subject limits of historiography, the Annales School significantly enriched the historical thought including the issues of geography, economics, psychology and others (Afanasyev 1980; Burke 1990; Smirnov 2002).

Global History

In the second half of the 20th century an array of new research areas in historical sciences was formed. The Global History became one of them.

The *subject of Global History* can be defined as the global socio-historical processes considered from the perspective of the natural world changes. The global socio-historical processes are social changes on the global scale. These processes are actualized not within the framework of nation-states (which is characteristic for classical historiography), but on the scale of humankind.

In contrast to the World History, based on the integrative methodology with a focus on converging history of nation-states within the unified discourse, Global History is based on description of humankind as a single whole, as a global community, as a population inhabiting and transforming the planet, as one of the driving forces of the planet's development. While the World History is generally oriented towards the Event, the Global History is oriented towards the Process. Global History can be defined as the *supra-event history, the history of trans-border processes going beyond the limits of nation-state significance*. This approach is named global historicism (Shestova 2011).

The difference between Global History and Big History lies in this: the former represents the history of humankind, starting from the occurrence of conditions for the emergence of humans, while the latter describes the history of the Universe, starting from the Big Bang (Spier 1996; Nazaretyan 2004).

Sometimes Global History is referred to as the history which studies the *processes of long duration (long durée)*. In the mid-20th century Fernand Braudel (1902–1985), a prominent member of the French Annales School, proposed a concept of the differentiation of the historical time, dividing the historical timeline into processes of long, medium and short duration (Braudel 1949, 1977).

Courte Durée – processes of short duration (years and decades) – are manifested at the level of individual events, at the level of political history. Those processes mainly depend on the individuals' actions.

Moyenne Durée – processes of medium duration (decades and centuries) – have economic and socio-cultural underpinnings. In practice, they do not depend on individuals, but are rather predetermined by strategic objectives of large social groups and institutions.

Longue Durée – processes of long duration (centuries and millennia) – are determined by the character of socio-natural interactions and in-depth civilization dispositions. Those are the processes which Global History basically deals with.

Afterwards, Braudel's long durée theory in combination with the *Long Waves* theory of N. D. Kondratyev (1892–1938) formed the basis not only for Global History but also for such research areas as world-system analysis or macro-historical modelling, *etc.* (Modelski and Thompson 1996).

The Global History conceptions are based on the idea of *non-linearity* of historical processes. In contrast to the classical historiography, based on the ideas of linearity and progressivism, Global History creates the dynamic picture of intertwined, multi-vector, multi-factor processes within the transformation of humankind from the earliest times up to the contemporary days. There is no constant steady movement or stable equilibrium in history. The postclassical science requires a discovery of new instruments for social analysis, including those dealing with the knowledge about the past of humankind. Extending the perspectives on the humankind past, discovering the dynamics of historical processes, expanding the circle of its participants, identifying the dead-end and long-haul pathways within the genesis of the most essential social institutions, Global History has opened up new possibilities to apprehend those changes that are occurring in the human society at present (Gills and Thompson 2006).

Another specific feature of the global-historical concepts is considering humankind in the light of global natural processes. Classical historiography considered the environment as an important factor of historical development. Global History considers that factor in dynamics, it explores the ways *the changes* within the natural world (changes of climate, relief, sea level, flora and fauna, *etc.*) have influenced any processes in the humankind history. It is also engaged in the research into the consequences of humankind's economic activities on the globe-wide scale (Grinin, Korotayev, and Markov 2012; Ilyin and Ursul 2012).

Global History contributes to *the interdisciplinary cooperation*, substantiating its concepts with the achievements gained by geology, mineralogy, radiochemistry, meteorology, paleontology, paleogenetics, epidemiology, demography and many other sciences and disciplines.

Being created in the age of informatization, Global History has purported the *open discourse*, with experts from the whole world, representatives of various schools and branches participating in the research. Global History has been created by their concerted efforts and, consequently, is a field for rigorous rivalries and disputes between various ideas. It is not only about overcoming Europocentrism of the concepts within the World History, which we have inherited from the classical epoch, but also contradictions between various approaches and methods. At the level of the historiography recording, the well-established Western traditions and standards still play a dominant role. Global History is open to revolutions in methodology of history.

As a phenomenon of the post-modern thought, Global History is also a process – a process of collective records of the humankind history open to the input by both professional and general public.

Global History studies trans-border social processes of ‘long duration’ and their dependence on specific features and changes of the natural environment. Migrations of tribes and ethnic groups, occupation of territories and regions around the globe, development of the human world, dissemination of material culture, spiritual interdependence of civilizations, differentiation and integration of languages, global technological revolutions and mechanism of distributing technologies, areas of the statehood emergence and relations between empires, farmers and classical nomads, historical trade routes, genesis of the system of world-economic relations, anthropogenic changes in the natural environment and physiological changes of the human in the long-term prospect are the main research issues of Global History (Shestova 2012).

Active *institutionalization* of Global History as a scientific and educational area started in the 1990s following the so-called ‘globalistics turn’ in the socio-humanitarian knowledge. Following the crisis in social sciences in the early 1990s, caused by the end of the confrontation era between the two systems, ‘globalization’ became the key concept in the social thought. Global History cannot be called the history of globalization, however, as Bruce Mazlish points out, the history of globalization is the core of Global History (Mazlish and Iriye 2005).

The first seminar on Global History was established by P. O'Brein in 1996 in the University of London (the Institute of Historical Research). The first Master's program in Global History was launched in 2000 in London School of Economics and Political Science. Today, Master's specialization and courses in Global History exist in many universities across Europe, Asia, and America.

In 2002, on the initiative of the Institute of Global and European Research (Leipzig University) the European Network in Universal and Global History (ENIUGH) was created. In 2003, the Global Economic History Network, GEHN was created. In 2008 the international network of global and world history – Network of Global and World History Organizations (NOGWHISTO) was founded.

In 2006 there was established the periodical *Journal of Global History* (JGH) which is published by the Cambridge University. In 2005–2011 three European Congresses in Global and World History took place.

Global History is an actively developing branch of research and education.

References

- Afanasyev, Yu. A. 1980.** 50 Years of the French Annales School Development: From the Idea of Global History to the Ideology of Anti-revolutionism. In Nechkina, M. V. (ed.), *History and Historians: History Year-book*. 1997 (pp. 190–220). Moscow. *In Russian*
- Braudel, F. 1949.** *La Méditerranée et le Monde Méditerranéen à l'époque de Philippe II*. In 3 vols. Paris: Armand Colin.
- Braudel, F. 1977.** History and the Social Sciences. Historical Time. In Kon, I. S. (ed.), *Philosophy and the Historical Method* (pp. 114–142). Moscow: Progress. *In Russian*.
- Burke, P. 1990.** *The French Historical Revolution. The Annales School. 1929–1989*. Oxford: Polity Press.
- Chumakov, A. 2010.** *An Anthropological Dimension of Globalization*. Philosophy of Globalization. Ufa: Bashkir University Press. *In Russian*.
- Gills, B., and Thompson, W. 2006. (Eds.)**. *Globalization and Global History*. London – New York: Routledge.
- Grinin, L. E., Korotayev, A. V., and Markov, A. V. 2012.** Biological and Social Phases of Global History: Similarities and Differences of Evolutionary Principles and Mechanisms. In Grinin, L. E., Ilyin, I. V., and Korotayev, A. V. (eds.), *Universal and Global History* (pp. 315–347). Volgograd: Uchitel. *In Russian*.
- Ilyin, I. V., Ursul, A. D., and Ursul, T. A. 2012.** *Global Evolutionism: Ideas, Problems, Hypotheses*. Moscow: MSU. *In Russian*.
- Mazlish, B., and Iriye, A. 2005.** *The Global History Reader*. New York – London: Routledge.
- Modelski, G. 1978.** The Long Cycle of Global Politics and the Nation-State. *Comparative Studies in Society and History* 2(20): 214–235.
- Modelski, G., and Thompson, W. 1996.** *Leading Sectors and World Powers: The Coevolution of Global Politics and Economics*. Columbia: University of South Carolina Press.
- Nazaretyan, A. P. 2004.** Universal (Big) History. *Voprosy istorii* 4: 70–80. *In Russian*.
- Shestova, T. L. 2011.** *Global Historicism and its Role in the Development of the Social Sciences*. Moscow: MAKS Press. *In Russian*.
- Shestova, T. 2012.** Global History as a Trend of Global Studies. In Grinin, L., Ilyin, I., and Korotayev, A. (eds.), *Globalistics and Globalization Studies* (pp. 101–106). Volgograd: Uchitel.
- Smirnov, V. P. 2002.** Fernand Braudel: His Life and Works. *Frantsuzkiy ezhegodnik* 34: 79–100. *In Russian*.
- Spier, F. 1996.** *The Structure of Big History: From the Big Bang until Today*. Amsterdam: Amsterdam University Press.
- Takho-Godi, A. A. 1969.** Ionic and Attic Interpretation of the Term ‘History’ and Those Associated with It. In *The Problems of Classical Philology*. Moscow: MSU. *In Russian*.

The Problem of Universal Values in World Politics

Galina A. Drobot

This article deals with the value orientation in global politics. The author starts and concludes the article with the reference to the 'great controversy' in the foreign affairs theory dealing with the following question: what is predominant – national interests as perceived by certain forces or cooperation based on universal interests? The author draws the conclusion that the almost century-long controversy is still unresolved. The reason is that in the contemporary world various social values coexist and compete with each other. The author gives a particular consideration to the Chinese and European value systems.

Keywords: *universal values, Chinese social values, European social values, Russian theories of global governance, international relations theory.*

The issue brought up in the title of the present article refers to the first great controversy in international relations theory that emerged as early as the first half of the last century. Let us revise the essence of that controversy. The matter is the essence of international processes. The liberal idealists claimed that those processes were based on moral and legal principles and values. Their opponents – the political realists – regarded international relations mainly as interactions between the states' national interests and their power balance. In practice, 'legalists-moralists' (the term coined by Hans Morgenthau) raised the question of the existence of some universal principles (values) that may and should form the basis of international relations.

In fact, there is nothing new about the issue of values. It was a hot point during the Cold War period. In the period after the end of the Cold War that subject stopped being relevant from the ideological perspective; however, it was not resolved properly. Only now the issue has become focused on philosophical and ontological components of the problem of a possibility to establish the world order on the basis of consistent principles (liberal democracy and 'democratic world') or, otherwise, competition and clashes of different value systems (as demonstrated by the foreign policy ideology of Iran, Venezuela and, to a certain degree, of Russia). Both approaches might seem simplified versions within the framework of the world order. One should point out that Max Weber wrote about the axiological nature of social knowledge, meaning, in particular, the value-related variety in the human society. However, referring to the value variety of particular socio-cultural groups, he did not imply the 'war' between those but rather emphasized pluralism within the social world order.

* * *

Following Weber's logical postulations, we would refer to the value systems of the European and Chinese civilizations as most adequately reflecting the world perception

Globalistics and Globalization Studies 2013 184–190

within the European and non-European (Eastern) communities that have co-existed in human society for many centuries, sometimes clashing and other times peacefully co-existing (Bogaturov 2009: 333–355).

The analysis of the value basis within the Western and Eastern societies enables to provide a commentary regarding the common and specific features in the foreign policy ideology and foreign policy behaviors of the Western countries and China today.

The Western ideology is characteristic of the assertive, ‘aggressive’ foreign policy ideology that is associated with the attempts to spread its values across other regions. Thus, the ideology of American foreign policy is based on the exceptional nature of America and its unique mission in the world history. From the very beginning, the most important component of the American national identity was the conviction in exceptionalism of the societal and historical development of the USA and its role in the world history. One should note that the American nation was, in fact, a unique conglomeration of adventurers and truth-seekers, honest entrepreneurs and profiteers, which made it different from the slowly changing societies in the Old World, giving it a chance to consider itself ‘unique’.

At first, the essence of the American idea was the promise of freedom, democracy, material wealth, *etc.* not only to the Americans, but also to other people from any place on the Earth, provided that they agreed to accept the American values. Herman Melville, the 19th century American writer, provided a precise and clear definition of that mind-set:

... we Americans are the peculiar, chosen people – the Israel of our time; we bear the ark of the liberties of the world... God has predestined, mankind expects, great things from our race; and great things we feel in our souls... Long enough, have we been skeptics with regard to ourselves, and doubted whether, indeed, the political Messiah had come. But he has come in us... (Melville 1850: 238–239)

The same idea was expressed by the prominent 20th century American politicians. As early as in December of 1945 Harry S. Truman, the USA President of that time, said: ‘Whether we like it or not, we must all recognize that the victory which we have won has placed upon the American people the continuing burden of responsibility for world leadership’ (Truman 1945). It is characteristic that many perceived the Truman Doctrine as a ‘world-wide equivalent of the Monroe Doctrine’. Identifying the objectives of the American foreign policy, Dwight Eisenhower said that the United States should become the permanent basis for the world government in order to enable achievement of the aspirations of all people for peace with justice in freedom (Eisenhower 1961). ‘History and our own achievements, – announced President Lyndon Johnson in 1965, – have thrust upon the principal responsibility for the protection of freedom on earth’ (Johnson 1965). While the Vice-President under Johnson’s administration, Hubert Humphrey pathetically stated: ‘I can see the true capital of the world in America of tomorrow’ (quoted in Gadzhiev 2007: 34–35).

As regards the West and, in particular, the United States, we should note a close convergence of the value component within the foreign policy and pragmatic national interests. For instance, the USA benefited from the instigation of ‘colour revolutions’ across the former Soviet Union not only in terms of Western-style democracy establishment, but also spreading its influence across the area dominated by Russia and rich in fossil fuel deposits. Another example is the ‘Arab Spring’ of 2011. The military support of

the democratically spirited rebel fighters in Libya was presented as a fight against the genocide and anti-democratic regime of Muammar Gaddafi. However, when approached in the light of the national interests pursued by the Western countries (France, Great Britain, the USA and others), it becomes clear that the main objective was to maintain the positions in the country with abundant fossil fuel deposits. The same can be said about the Iraq war with the only difference being the rationale behind the war.

So, for instance, China's rationale behind foreign policy is of a completely different nature. The key component is not an aggressive lobbying of the country's values around the world, but rather 'a peaceful ascent to power' and 'a peaceful co-existence'. Hereby we provide an excerpt from the dispositions within teachings of Deng Xiaoping: 'observe cold bloodedly, strengthen your positions, decisively react to the changes, cover your capabilities and win time, learn not to attract time to yourself, never become a leader...'. (Deng Xiaoping 2007: 363). The guidance of Deng Xiaoping in general focused the Chinese efforts to establish 'a discreet diplomacy' or, as one may call it today, 'a soft power'. The Russian researcher Lukin collected the China's ideological stereotypes and 'dreams' of foreign policy in the following way:

1) China has always been treated like a 'sick person' by everybody. Great Britain, Russia, France, Japan, then the USSR and the USA that took away the territories, spoiled the country and ignored China's interests.

2) China has always been a peaceful country. Even at the time of the empire, the Chinese did not annex any territories, while all ethnic groups voluntarily joined the country and Beijing provided them with assistance and promoted development.

3) Nowadays, the USA is considered as China's enemy and other states – as the American puppet governments that surround the Celestial Empire and try to take away its rights to defend the legitimate interests.

4) China's economy has been developing fast, while the main challenge the country meets is the shortage of raw materials. In the future, there will be a sharpening struggle for the earth's mineral resources, and the Chinese army must be ready to defend the country's interests in any region of the world.

5) China has a long-lasting culture and effective economy that have proven its superiority over other countries' cultures and economies. Therefore, it must be China that will lead the world into the future, distribute the resources in common interest and shield the world against the other countries' endeavors, primarily those of the USA. To achieve that objective, China has to become the most powerful force.

6) China considers itself as defending the interests of developing countries that are oppressed by the Western countries (Lukin 2010).

However, the Chinese actual foreign policy does not always follow its foreign policy rationale. That is a manifestation of the dichotomy that is often seen in the East between the declared image (championed values) and reality.

On the one hand, China actually positions itself not as the global power (which it is already considered worldwide), but rather a regional power, abstaining from any commitments to address global threats or challenges and focusing on domestic issues. On the other hand, China's foreign policy aspirations cannot be any longer ignored by anybody, and, primarily, China itself. Those aspirations become the most evident at the regional level, may it be the relations with the Asian-Pacific region countries, with the Shanghai Cooperation Organization or with the Far East.

Putting global foreign policy on the back burner, China is currently pursuing the following strategically important *regional objectives*:

- recognition by the world community of China's territorial integrity, including its rights to Taiwan, Tibet, and Xinjiang;
- international recognition of China's 'privileged' rights within the area of the South China Sea (where oil-related interests of its nine regional neighbors overlap);
- extension of the dominant influence over Southeast Asia;
- solving the territorial disputes between China and neighboring states in favor of China (hereby, it is primarily the relations with India, which, despite the declared 'years of the Indian-Chinese friendship', are regarded by both countries as strategically competitive; in the short-term the countries do not intend to escalate the relations, maintaining 'slow normalization');
- securing the neighbor states' backing of China's positions in the disputes with the USA and other Western countries;
- the de-facto establishment of 'special relations' between China and Mongolia;
- taking a de-facto 'special position' in Central Asia;
- preventing any other country's joining the anti-Chinese coalitions and military confrontation with China;
- support of other countries' trade and investment policies favorable for China;
- recognition by the region's countries of China's leading regional role, manifested in the form of informal, but mandatory consultations with Beijing before any important foreign policy decisions are made;
- ensuring consent from other countries to receive the Chinese immigrants;
- securing 'special rights' of the Chinese minorities abroad, as well as the recognition of Beijing's rights to defend and support them;
- propagation of the Chinese language across Asia, promotion of bilingualism across the overseas ethnic Chinese diasporas (for more information see Voskresensky 2001).

China built up such influential capabilities in Southeast Asia, which no other power of the regional level has managed even to come up closely. In addition, those capabilities were set up in such a reasonable and cautious manner that they did not provoke any outright opposition on the part of other states, let alone the establishment of the anti-Chinese coalition. Today, an informal approval from China has become a mandatory prerequisite for implementation of any strategically important decision in the region.

The Shanghai Cooperation Organization clearly demonstrates not only cooperation, but also a competition between Russia and China for the influence in Central Asia. Aside from official rhetoric and in spite of the active cooperation and aspirations for its expansion and qualitative build-up, Moscow and Beijing have been competing for the leadership in the SCO. China actively claims an economic and military-technical role in the affairs of the Central Asian SCO members – Kazakhstan, Uzbekistan, Tajikistan and Kyrgyzstan. Its trump card is credits and supplies of cheap Chinese goods across Central Asia. This evokes the question: does China aspire to become a development locomotive for the region's countries in line with Kojima Akamatsu's 'flying geese' model?¹ In theory, Russia

¹ This model has been applied in Eastern Asia since the 1970s. It argues that one economy, like the first goose in a V-shaped formation, can lead other economies toward industrialization, passing older technologies down to the followers as its own incomes rise and it moves into newer technologies (Japan – South Korea, Taiwan, Singapore, Hong Kong – Thailand, Malaysia, Indonesia).

had an opportunity to take such a role in the 1990s, but the country's lack of political and economic resources prevented it from putting it into practice then, and now it is China that has taken up the leader's position. Competition for the leading position is evident not only in the economic, but also in military and operative spheres (Litovkin 2007).

Now we shall consider the policy pursued by China in *Russia's Far East*. Stepping back from official relations, we can clearly see that there are enough pitfalls in contacts between the two countries. Primarily, those are associated with China's acute domestic issues, while the country is inclined to solving such issues at the expense of its neighbor states, and, in particular, of Russia's territories adjacent to China. One should remind that the length of the Russian-Chinese border is about 4,200 kilometers. The population density across those Russian territories is rather low (with 7 million people residing in the Russian Far East), undeveloped infrastructure, loose connections with the centre, weak state institutions, scarce economic capacities combined with the abundance of natural resources (oil, gas, timber and others). In contrast, China's territories adjacent to the Russian borders are very densely populated (on the other side of the Amur, within the territory of three provinces there live approximately 300 million of the Chinese) and besides, they are characterized by soils of low fertility and the shortage of natural resources.

There are some intergovernmental Russia-China agreements, providing the possibilities for migration of the Chinese people to Russia and enabling a freedom of choice concerning the sphere and scale of activities. Those are unprecedented agreements. At the same time, China is moving towards practical implementation of various stimulating measures to promote migration of the Russian people to the Chinese territories. Simplified visa procedures, sales of flats, and free medical services (in contrast to the Chinese residents) have been attracting Russian citizens. There have appeared Russian communities in various cities of China.

China does not intend to nurture an aggressive plan towards Russia. But that does not mean at all that Russia can be complacent. Even if the Chinese military-political and economic expansion focuses on the basins of the Pacific and Indian Oceans, a growing demand for the resources required to enable a competitive advantage over its rivals (the USA, Japan, ASEAN countries, and India) is bound to draw Beijing's attention to Russia as the major source of those resources. And China will seek to gain them by any possible means – if not through soft power, then through the hard-line policies (Arbatov 2010: 141).

The country's adoption of the concept for 'strategic borders and life space' has raised significant concerns. The territorial and space boundaries are supposed to mean solely the limits, within which the state can 'effectively defend its interests' using the real power. 'Strategic borders of the life space' shall move in proportion to the growth of 'integral power of a state'. That said, in 2010 China's People's Liberation Army was to turn into the force 'guaranteeing the expansion of strategic borders and life space'. According to the Russian mass media, the expansion has been backed up with the historic rationale: the official Chinese history considers the Russian-Chinese relations as permanent Russian aggression, which, starting at least from the 16th century, resulted in Russia's annexation of China's original lands allegedly extending up to the Urals (as early as during the time of Peter the Great the Qing rulers in China would claim that the Russian-Chinese border should have been in the vicinity of the city of Tobolsk).

Summing up the above said concerning foreign policies of the Western countries and China, it is worth noting that analyzing the latter presents a larger problem in comparison with the policies of the USA and its European partners. The reason is that the ideology of Western foreign policy correlates with the pursued practical politics. In contrast, the Chinese foreign policy rationale and actual foreign policies significantly differ. The ideology has been established in the spirit of peace, cooperation and non-belligerency (in line with traditional values), while, in reality, the Chinese foreign policies are far from being peaceful.

* * *

In conclusion we would like to return to the starting point of the present article. Unexpectedly, the disputes between the 'legalists-moralists' and realists have recently become a focus of the Russian academic literature. Alexander Chumakov, a prominent Russian expert in Global Studies, has published an article dealing with the issue of global governance (Chumakov 2010). As Chumakov believes, '...the main tools to have the most profound influence on public opinion and individuals' behavior are *morale and law*. One should also single out the *concepts* used to explicitly or implicitly govern social systems: *ideology, politics, economics, finance, culture, etc.* However, among those factors *morale and law* undoubtedly play a dominant role...' (*Ibid.*: 9). Chumakov cites Kant, and his article has, in fact, a large number of Kantian ideas.

In his well-known writing 'Perpetual Peace' (Kant 1966 [1795]), Kant assumes a possibility to achieve a non-belligerent community in international relations. He perceives the non-belligerent world as a global republic with the universal citizenship, with the international law forming the basis for the relations between parts of that republic. Kant actually seeks to remove interstate borders and establish the unified global republic-state.

With the account of Chumakov's ideas highlighted in his articles and their connections with Kant's thoughts, one should understand Kant's arguments to justify the possibilities of achieving such a 'peaceful' world order. Kant divided the arguments into the philosophical ('pure reason') and practical ones ('practical reason'). Holding true to his philosophical doctrine, he postulated that 'political maxims must not start *from the prosperity and happiness that are to be expected in each State...*, nor from the end which each of them makes the object of its will (not from the desire) as the highest (empirical) principle of politics; but they must proceed from the pure conception of the duty of Right or Justice (on the basis of *obligatory principle given a priori by pure reason*)' (Kant 1966: 300). Kant denoted that philosophical principle as 'categorical imperative', provided to each person on the basis of his or her natural status. If the contemporary people do not follow it, it is only because of the perversity of human nature.

Chumakov's assertion that 'morality and law undoubtedly play a dominant role...' is in line with the moral categorical imperative of Kant.

Kant's 'practical reason' was of much more realistic nature. Following that postulation, the great philosopher pointed to the following prerequisites of peace: culture as a 'great uniting factor', 'spirit of trade, incompatible with war' and military-political cooperation against the aggressor. Those maxims might not hold water in the face of in-depth criticism, but it is of importance that Kant highlighted their significance. In this connection, there is a need to note that Chumakov has turned out to be more realistic than Kant, asserting that morale and law take precedence over economy, politics, finance and culture.

* * *

Thus, the first great controversy in foreign affairs theory concerning the significance of universal values and interests in foreign affairs has not been resolved yet. In our opinion, it will continue to be unsolved, until there is a pluralistic human society, representing a diversity of values and interests, their co-existence and rivalry.

References

- Arbatov, A. G. 2010.** *Equation of Security*. Moscow: Yabloko. *In Russian*.
- Bogaturov, A. D. 2009. (Ed.).** *Modern World Politics: Applied Analysis*. Moscow: Aspect-Press. *In Russian*.
- Chumakov, A. N. 2010.** Global World: Governance Issue. *Age of Globalization 2*: 3–15. *In Russian*.
- Deng, Xiaoping. 2007.** Advance One's Skills in Using the Moment to Solve the Development Issues. In *Selected Works*. Vol. 3. Beijing.
- Eisenhower, D. D. 1961.** *State of the Union Address*. January 12, 1961. URL: <http://www.let.rug.nl/usa/presidents/dwight-david-eisenhower/state-of-the-union-1961.php>
- Gadzhiev, K. S. 2007.** Democratic and Imperial Beginnings in Foreign Policy Strategy of the USA. *World Economy and International Relations 8*: 31–41. *In Russian*.
- Johnson, L. B. 1965.** Remarks at the White House Luncheon on Lincoln's Birthday. February 12, 1965. *The American Presidency Project* by G. Peters and J. T. Woolley. URL: <http://www.presidency.ucsb.edu/ws/?pid=27396>.
- Kant, I. 1966 [1795].** Perpetual Peace. In *Collected Works*. 6 vols. Vol. 6. Moscow: Mysl. *In Russian*.
- Litovkin, D. 2007.** Chinese will Ensure 'Mission of Peace'. *Izvestia* June, 28. *In Russian*.
- Lukin, A. V. 2010.** 'Chinese Dream' and Future of Russia. *Rossiya v globalnoy politike 8(2)*. *In Russian*.
- Melville, H. 1850.** *White Jacket; or, The World in a Man-of-War*. Vol. 1. London: Richard Bentley.
- Truman, H. 1945.** *Special Message to the Congress Recommending the Establishment of a Department of National Defense*. URL: <http://www.trumanlibrary.org/publicpapers/index.php?pid=508&st=placed+upon+the+American+people&st1=>
- Voskresensky, A. D. 2001. (Ed.).** *China in World Politics*. Moscow: ROSSPAN. *In Russian*.

Global Terrorism and World Political Cycles¹

Arno Tausch

*In this publication, we draw some optimistic, socio-liberal conclusions about Islam in the world system. Countering some alarmist voices in the West, neither migration nor Muslim culture are to be blamed for the contemporary crisis, but the very nature of unequal capitalist accumulation and dependency that is at the core of the world capitalist system. For one, our analysis is based on current thinking on **Kondratiev waves** of world political development inherent in recent work by the International Institute of Applied System Analysis (IIASA) and the NATO Institute for Advanced Studies. We also present analyses in the framework of the debate on cross-national determinants of human well-being in the world system. While we are cautiously optimistic about a socio-liberal, non-interventionist policy alternative, we come to the conclusion that present patterns of global governance, modeled around the neo-liberal Washington Consensus and American hyperpower, are doomed to failure. We present a rigorous re-analysis of United States Department of State data on acts of global terrorism in the framework of Kondratiev cycle waves. We then proceed to an analysis of the determinants of economic growth and ecological and social development in 140 nations with complete data. The data presented show that before the present war in Iraq the **global war on terrorism already showed very positive effects**, and that the strong linear **downward trend in global terrorism**, to be observed during the last two decades, **coincided with rising globalization in both the centers and the peripheries of the world system**, and that the percentage of people with less than \$ 2 a day even declined in the Middle East and North Africa. We also found no systematic interaction between the differentials of growth in the center and the periphery or inequality differentials in the center and the periphery and patterns of global terrorism. Thus, a western socio-liberal, multi-lateral and non-interventionist policy could have won the fight against international terrorism. We then refute empirically Huntington's hypothesis about the incompatibility of Islam and successful socio-economic development. Our publication re-establishes the notion that capitalist development is of cyclical nature, with strong fluctuations every 50 years. For us 1756, 1832, 1885, 1932 and 1975 are the beginnings of new Kondratiev waves, while 1756, 1774, 1793, 1812, 1832, 1862, 1885, 1908, 1932, 1958, 1975, and 1992 are the turning points (troughs) of the Kuznets cycles. Vigorous upswings of the capitalist world economy need to be supported by a tightly organized new world political hegemonic order, while the strength of the downswings and the severity of the depressions always are a function of the waning world political order. We show the fatal interconnection between these world political and world economic 'tsunami waves' in a more systematic fashion. In the most recent*

¹ This article was published in the almanac *History & Mathematics: Analyzing and Modeling Global Development* (edited by Leonid Grinin, Victor de Munck, and Andrey Korotayev). Moscow: KomKniga, 2006, pp. 99–126.

phase of capitalism, its 'Casino' character becomes ever more apparent, with a sharp distinction between the winners and losers of the system.

Introduction

In this publication, new quantitative insights on the structures of the contemporary crisis are presented that are largely based on insights of 'critical political economy' of the late 19th and early 20th centuries.

It cannot be precluded that patterns of global terrorism correspond to the more general swings of world politics and economics that are intensely studied by world scholarship (see, e.g., Devezas 2006). The idea of global cycles goes back to the Russian economist Nikolai Kondratiev (1984; 1998). For one, Nikolai Kondratiev's work and personality now received a due international attention. Although many contemporary economists treat the legacy of Kondratiev with utter contempt, Louçã could show that several major figures of economics of the 20th century, among them Economic Nobel Prize winners, were deeply impressed by Kondratiev's research. It suffices to mention here not just Joseph Alois Schumpeter and also in a way Simon Kuznets, but Ragnar Frisch, Gottfried Haberler, Alvin H. Hansen; Walt Rostow; and Jan Tinbergen. The revival of Kondratiev research in the 1960s and beyond is linked to the simulation efforts of Jay Forrester at the MIT in the context of his world-modeling for the Club of Rome. The International Institute of Applied System Analysis (IIASA) developed a highly sophisticated debate on the issue, centered mainly around the works of the physicist Cesare Marchetti and the Portuguese systems scientist Tessaleno Devezas. Devezas' research is particularly noteworthy here, because it combines sociological insights into values and generations with the mathematics of cyclical swings in economy and demography. Forrester reproduced a 50 year pattern for the US economy, based on his System Dynamics National Model (NM-model) which is based on 15 sectors. Marchetti moved the debate away from price series to physical quantities, including production and energy consumption. Unfortunately, as sophisticated and statistically satisfying as this IIASA debate might sound, it has been rather overlooked by both the mostly Marxist and world system supporters of Kondratiev waves and also by their economist detractors.

In this context it should be emphasized that the recent Russian re-reading of Kondratiev also touches the nature of waves in the center and in the periphery. Especially the Russian economist Aleksander Bobrovnikov (1989, 1994, 1996, 1999, 2002) put forward an interesting frame of reference, in fact linking the Kondratiev cycle debate with *dependencia* theory. Bobrovnikov makes the point that transnational capital flows during the beginning downswing in the center to the periphery, where the belated cycle still allows huge profits; during the belated periphery depression transnational capital again flows to the center, thus exacerbating the debt crisis in the periphery. Our publication precisely continues this debate with new data about world development in 1990–2003.

From the quantitative analysis of global conflict and global terrorism, which basically shows that at present the world system is confronted with the period of the deligitimization of the US leadership and rising regional and local conflicts, we proceed to estimate the quantitative weight of such explanatory factors as Muslim culture, transnational migration

and structures of dependency for world economic growth and social development. Again, the relevance of the ‘classic’ political economy explanations and the center-periphery structure reading of the K-cycles emerges to be relevant.

Re-thinking Kondratiev Cycles

In this contribution, we try to present some new perspectives on the importance of the legacy of this great Russian researcher for the debates about the contemporary global crisis. Let us be precise: Kondratiev downswings were always particularly severe in the periphery of the world system, and the ups and downs of reform and the re-centralization of governments there are closely linked to the Kondratiev cycle. Looking at the growth and development differentials, Bobrovnikov's such important point for world systems governance receives a dramatic illustration (Tausch 2007, based on UTIP and World Bank data from more than 60 countries of the world since 1960). The cyclical swings in the periphery are by far more pronounced than in the center and the depressions more severe. The level of inequality is historically higher in the periphery than in the center, but inequality also increases in the centers. Such comparisons clearly suggest three tendencies:

a) first, a faster growth in the peripheries during the beginning B-phase of the Kondratiev cycle;

b) a more severe depression in the peripheries than in the center;

c) a belated recovery in the periphery.

The very logic of industrial processes and basic innovations, as well as the societal models, connected with them, would suggest building cyclical fluctuations into more general theories of development (Amin 1997). Blast furnaces and other important components of the industrial process, also, have a certain life-cycle, comparable with the Juglar and Kuznets cycle, just as technical innovations are scattered in a non-random fashion along time, coinciding with the Kondratiev cycle (Bornschier 1988 and 1996; for a very comprehensive summary Scandella 1998). There are short term instabilities of 3 to 5 years duration (Kitchin cycles), 8–11 years duration (Juglar cycles), 18–22 years duration (Kuznets waves), and longer, 40–60 years Kondratiev waves. The following dating scheme could be suggested in the light of the Schumpeterian theory tradition (Scandella 1998). Global capitalism since 1740 had the following Kuznets cycles (our calculations based on the untransformed rates of global industrial production growth, 1740–2004), based on polynomial expressions of the 6th order:

1741–1756; $R^2 = 23.5 \%$

1756–1774; $R^2 = 36.1 \%$

1774–1793; $R^2 = 34.8 \%$

1793–1812; $R^2 = 39.7 \%$

1812–1832; $R^2 = 16.4 \%$

1832–1862; $R^2 = 25.7 \%$

1862–1885; $R^2 = 36.3 \%$

1885–1908; $R^2 = 56.2 \%$

1908–1932; $R^2 = 44.2 \%$

1932–1958; $R^2 = 19.1 \%$

1958–1975; $R^2 = 60.9 \%$

1975–1992; $R^2 = 75.8 \%$

We tended to analyze the period between 1756 and 1832 as the 1st Kondratiev cycle of the industrial age, the period between 1832 and 1885 as the 2nd Kondratiev cycle, the period between 1885 and 1932 as the 3rd Kondratiev cycle, and the period between 1932 and 1975 as the 4th Kondratiev cycle. So, according to this logic, we are now in the 5th Kondratiev cycle of the industrial age, with one Kuznets cycle after the depression of the mid-1970s already well behind us, and the second Kuznets cycle since 1992 pointing in a downward direction. The long cycle literature tells us why there is a recurrent pattern of instability in the social orders both at the level of national society as well as at the level of the international system.

Our tests (that we report in Tausch 2007) show that our Bornschier dating scheme much better corresponds to the structure of world production data than the alternative, proposed by Goldstein. This scheme is in line with the dating scheme proposed by Joshua Goldstein, Phil O'Hara, and Ernest Mandel, among many others. However, this dating scheme might very well correspond to the movement of prices.

For us **1756, 1832, 1885, 1932** and **1975** are the beginnings of new Kondratiev waves, while 1756, 1774, 1793, 1812, 1832, 1862, 1885, 1908, 1932, 1958, 1975, and 1992 are the turning points (troughs) of the Kuznets cycles.

It also should be noted that the hypothesis about B-phases of the Kondratiev waves – a very strong linear or non-linear down-ward swing of about 20 years duration, – receives at least some direct confirmation from the untransformed, original new world industrial production growth data, based on Goldstein (1988) for 1740–1974 and UNIDO Statistical Office for 1975–2004. Working with a polynomial expression of the 3rd order, we arrive at the following R^2 for our B-phases of the Kondratiev waves. For all 20 year periods before our measurement points, the B-phase-hypotheses are confirmed:

pre-1756	12.8 %
pre-1832	6.5 %
pre-1885	8.9 %
pre-1932	41.8 %
pre-1975	28.4 %

Although we date the trough in the 1830s earlier than Bornschier, we coincide with his analysis of the 19th century and large sections of the 20th century. Having been written originally in the late 1980s, Bornschier's work is somewhat unclear about the crisis in the last part of the 20th century; we always believed that the culmination point of the stagnation from 1973 onwards was overcome by the Reagan boom of the 1980s and the Clinton period boom. We somewhat differ with other world system scholars on the dating game, for sure:

Table 1. The Kondratiev cycle dating game

a) untransformed original data

	O'Hara	Tausch	Dates suggested by sliding correlation method
1	2	3	4
1 st Kondratiev	1779–1847	1756–1832	1756–1819
2 nd Kondratiev	1847–1893	1832–1885	1819–1862

1	2	3	4
3 rd Kondratiev	1893–1931	1885–1932	1862–1918
4 th Kondratiev	1931–1992	1932–1975	1918–1954
5 th Kondratiev	1992–	1975–	1954–1993
R^2 1 st K	2.59	3.25	4.43
R^2 2 nd K	4.68	1.5	15.77
R^2 3 rd K	24.66	28.71	7.39
R^2 4 th K	8.01	9.34	5.59
R^2 5 th K	33.7	6.32	23.14

b) 9-year sliding averages

	O'Hara	Tausch	Dates suggested by sliding correlation method
1 st Kondratiev	1779–1847	1756–1832	1756–1819
2 nd Kondratiev	1847–1893	1832–1885	1819–1862
3 rd Kondratiev	1893–1931	1885–1932	1862–1918
4 th Kondratiev	1931–1992	1932–1975	1918–1954
5 th Kondratiev	1992–	1975–	1954–1993
R^2 1 st K	32.6	41.3	45.6
R^2 2 nd K	25.2	15.3	27.2
R^2 3 rd K	50.0	43.8	65.6
R^2 4 th K	27.7	39.6	32.7
R^2 5 th K	91.9	70.2	92.0

One of the most intriguing features of the world systems theory is its prediction of the recurrence of global wars in the world capitalist system.

By re-analyzing latest conflict data (great power battle fatalities from all wars, Goldstein 1988 and COW/PRIO 2005[http://www.prio.no/page/CSCW_research_detail/Programme_detail_CSCW/9649/45656.htm]) from 1495 to 2002 and as yet unpublished UNIDO data about the growth of world industrial production 1740–2004 it was shown that the long Kuznets and Kondratiev swings and cycles of capitalist world development that play such an important role in the analysis of global war since 1495 have indeed not ended after the end of Communism, and that instability, and not stability, characterize the world economy, and that there is an indented ‘W’ shaped pattern of global conflict since 1495 that did not end with the end of the Cold War (Tausch 2007).

By now, we all know very well that there were voices that predicted the ‘end of history’ in the 1990s. The world systems approach always took a more cautious line and would never preclude – at least in principle – a repetition of the insane economic cycles and major power rivalries that characterized the course of history since 1450 and which produced three devastating global wars, 1618–1648; 1793–1815; and 1914–1945 (see the by now classic contribution by Goldstein 1988). In view of the methodological critique by several

authors, including Beck (1991) and Silverberg (2005), against the 'long wave school' it would seem appropriate rather to talk about 'tendencies' or 'waves' and not about 'cycles'. Silverberg's recent research paper applies spectral density analysis to two famous world system time series: Modelski's and Thompson's sea power index and the Levy-Goldstein great power fatalities data series. However, we try to show by using Kondratiev's classic techniques of polynomial regressions that there are indeed several cycles, and not one cycle, of global economics and politics.

Kondratiev Cycles and Global Conflict

One of the most startling consequences of the relevance of Kondratiev are the insights of the long cycle schools on global conflict. The international system is indeed characterized according to Goldstein by the following sequence of cycles:

**global war → world hegemony of the dominant power →
→ de-legitimization of the international order →
→ de-concentration of the global system → global war etc.**

The duration of these sub-phases of the international order is approximately one Kondratiev cycle each (an economic cycle of 50 to 60 years duration, see below), so the unit of time of the international system can be symbolized by the expression – one Kondratiev (1K). An entire hegemonic cycle lasts 3 Kondratiev waves.

A more careful re-reading of the world systems approach – especially the writings of Giovanni Arrighi, George Modelski, Andre Gunder Frank and Immanuel Wallerstein – does suggest that the 21st century will be characterized by a further shift of the world economic centers of gravity towards Asia, and that the maintenance of peace of the enlarged Europe to the outside world will depend on the European Union democracy, technical innovation, and the avoidance of what Arrighi has called – in allusion to the concept of power of historical Venice – a '*terra ferma*' constellation, *i.e.* the territorial concept of power and the exploitation of the hinterland – the terra ferma. In the history of the world economy, such major geographical shifts of economic activities and of military power – like in 1340, 1560, 1750 and 1930 – were always associated with major wars and with a very deep economic depression.

We agree with Modelski (1999) that global challengers in the world system were always characterized by the interaction of:

- a large army;
- a large economy;
- a closed, controlled society;
- and weak, ethnocentric media.

Russett's hypothesis about the great probability of peace between democracies is an all-important, further element in this debate.

At any rate, the future of the open society in Europe, the exact fulfillment of the Copenhagen criteria of a functioning democracy and market economy in the EU enlargement process, and the future democratization of the Union – also in face of the darker sides of the European heritage and the very idea of an economically united Europe under authoritarian premises under Nazi rule before 1945 – become decisive whether or not Europe will become a global challenger in Modelski's sense, and will determine whether Europe is a new challenger of the new evolving global leadership along the Pacific axis that could fit into the pattern, described by Modelski:

- an oceanic navy;
- lead industries, fiscal strength;
- democratic potential, party system;
- strong active media.

A relatively closed society, combined with high customs, a reliance on military land power, exploitative relations with the internal and immediate external peripheries (the hinterland of Northern Italy before the great Italian wars of the 13th and 14th century, the Spanish colonies and internal peripheries in Hapsburg Europe before the global war 1618, the French internal peripheries and colonies before the Napoleonic Wars, and Germany's 'Drang nach Osten' before 1914) and a relatively weak technological home-base characterized the attempts at world power, while the successful world hegemonies (the United Provinces of the Netherlands, the United Kingdom, and the United States) were each time the practical opposites on all or most of these dimensions: a naval, knowledge-driven and world-market concept of power, a society open to migration, low customs, a large sea power and a smaller, but mobile and disciplined and readily deployable land-army, and a strong technological home-base.

Significant for hegemonic success is also the strong social role of the urban merchant class that is in stark contrast to the ties between the land and capitalism, characteristic of the 'rentier' political economy of Hapsburg Europe, France, and Germany, the historic challengers that lost the world leadership contest.

World hegemonies that characterize the workings of world capitalism arise and they also end. As it is well-known in world system research, especially from the works of Arrighi and Silver, there are signal crises of world capitalism (the usual Kondratiev depressions), and there are terminal crises of the world system, when hegemonies end.

Peaceful transitions from one hegemony to the other are among the most intricate questions of peace research and peace policy of our time.

These moments of world hegemony transformation, as Arrighi and Silver (1984, 1999) and as Boswell (1999) have shown, are especially dangerous culminations of world depressions and are characterized by a subsequent fight for world hegemony, like during the great crash of the 1340s, which marked the beginning of the Genoese age (Arrighi) or Portuguese and Genoese age (Modelski), the crash of the 1560s, which marked the beginning of the Dutch era, the depression of the 1750s and 1760s, which marked the beginning of the British era, and the Great Depression in the 1930s, which was the terminal crisis of British world capitalist dominance (Arrighi 1995). Regulation can be successful, like after 1560, and 1930, and deregulation can be successful, like after 1340, 1760, and – most probably – the 1980s (compiled from Arrighi 1995).

A world-hegemony evolves and declines during at least two Kondratiev waves. We think it is fairly safe to assume that there is no such early immediate terminal crisis of the capitalist system, but that the risk for such a crisis rapidly increases after 2020 or 2030. Even at the risk of gross oversimplification, the following scheme could be drawn.

There seems to be ample evidence, reproduced, among others, in Tausch (2003) that the terminal crises of capitalism, like Tsunami waves of world politics, have devastating consequences for the well-being of the great majority of humanity. Evidence, based on the works of Andre Gunder Frank and Rudolph Rummel suggests that as a consequence

of the terrible world depressions of the 1350s (coinciding with the Black Death) and 1750s, Europe lost significantly its share in total world population, while the earthquake of world politics 1900–1950 had an estimated 187.7 million victims in terms of political repression, genocide and democide, *i.e.* a good part of all the estimated total victims (482 million human beings) of democide, wars and repression in total human history. Among the major world systems researchers of our time, the late Andre Gunder Frank was most active in championing the idea that there are major economic cycles dating back 5000 years in human history. This idea was put forward by him for example in 1994, in an important paper which he presented to the New England Historical Association. A more final word by Frank on these large cycles is to be found, among others, in his *ReOrient* (1998: 248 ff.).

So, where are we now? 1870? 1913? 1938? World systems theory is full of speculation about the future, and much of world systems research writing projects a major global war by around 2020 or 2030. Just let us quote from famous world systems researchers:

a) Goldstein (2005) returned to his ‘conflict clock’ (Goldstein 1988: 259). Looking back on his predictions and his work, he now defines 2000 as the war trough year, to be followed by a 2005 price trough and real wage peak, 2010 an expansion phase, 2015 a production peak, 2020 an investment peak, 2025 an innovation trough and 2025 a war peak, and 2030 a price peak. Goldstein is clear about his prediction about the 2020s as the next real danger zone of world politics: ‘*In my 1988 book I pointed to the period around the 2020s as a potential danger zone, and it still worries me*’ (Goldstein 2005: 8).

b) Chase-Dunn and Podobnik (1995) see a 50/50 chance of global war by around 2020, with the most likely contenders of the US being either a United Europe under German leadership or Japan.

c) Boswell (1999) presents a list of 10 system evolution steps, starting by the relative decline of the United States, followed by imperial rivalry and global war between 2010 and 2020, to be followed by another world system sequence, ending by 2080 or 2090 in yet another cycle of relative decline of the hegemon who won the last world war by 2010/2020 ...

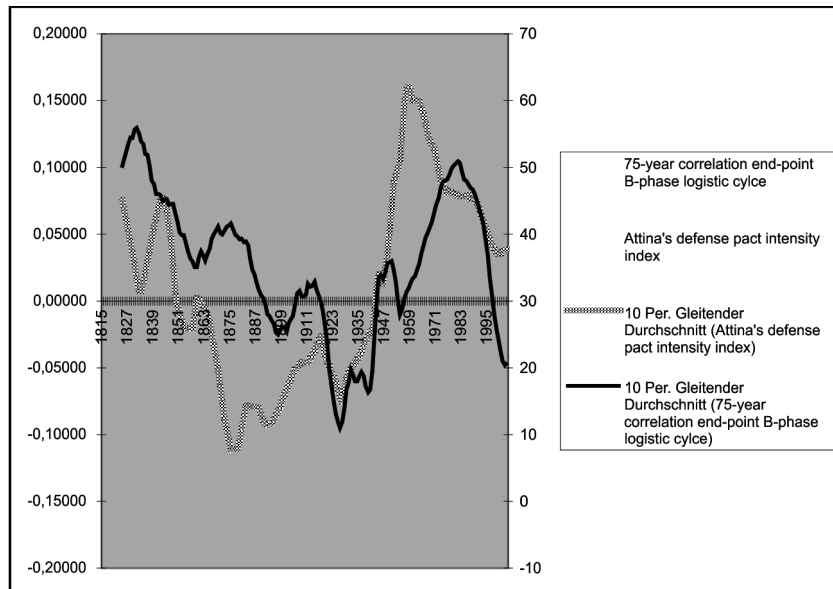
d) Work by Attinà (2002, 2003a, 2003b, 2004, 2005) and Modelski (1987, 1995) also suggests that we most probably will not escape the fatal cycle of global leaderships and global contenders. Since the mid-1960s, the defense pact aggregation index that measures the percentage share of defense pact members in the total number of states in the international system, *i.e.* the control that existing, established mechanisms of world political leadership exercise over global politics, has declined, suggesting that the era of global power by the United States, which was established in 1945, definitely comes to an end and that our era is pretty similar to the era 1850–1878, which was characterized by the de-legitimation of the then British leadership, followed by the de-concentration of the international system and the era of coalition-building between 1878–1914, which ended, as we all too well know, in the catastrophe of 1914.

The Italian political scientist Professor Fulvio Attinà interprets the global political cycles of the world system in accordance with Modelski as:

global war macrodecision → global power execution →
 → **de-legitimization and agenda setting → de-concentration and coalition building →**
 → **global war macrodecision etc.**

Attina argues his defense pact aggregation index neatly measures these cycles. We established in that context that the tsunamis of the break-up of the world military order precede the tsunamis of world depressions. We further compared these cycles with the long swing of world economic development and came to the conclusion that these two cyclical movements are roughly in parallel. But the tsunami crisis of world politics indeed, as we already stated, precedes the tsunami economic crisis (Tausch 2007).

Graph 1. The stylized interrelationship between the strength of the 75 year downswing correlations of the logistic cycles and the hegemonic cycle (Attina's defense pact index)



Legend: Potenziell: potential function; polynomialisch: polynomial function. Gleitender Durchschnitt: sliding average (10 year sliding averages). The 'sliding 75 year correlation analysis' shows that the hypothesis that there was an end-point in a negative, 75 year downswing period received the strongest confirmation during the world depression of the 1930s. The analysis also confirms that by the late 1860s and the 1980s there were turning points in world long-run capitalist development. The golden periods of the first half of the 19th Century and from 1945 onwards seem to have reached their end. The analysis also shows that the movements in the world political order, measured by Professor Attina's defense pact index, actually **precede** the world economic swings. The breakdown of the world political order precedes the breakdown of the world economic order; a vigorous world political order is a precondition of a vigorous world economic order. All war-related calculations are based on the data on great power battle fatalities from all wars in 000 victims, 1495–2002. The data 1495–1945 (1975) were reported in Goldstein, 1988 (see his definition, page 235 of his book), the data 1946–2002 are based on the war data base as reported by PRIO Oslo: http://www.prio.no/page/CSCW_research_detail/Programme_detail_CSCW/9649/45656.htm, re-calculated for the aims of a comparison of 'great power battle fatalities from all wars'. Great Powers after 1945: the members of the UN Security Council plus Germany. Calculations based on the data provided by Goldstein (1740–1974; based on Goldstein, 1988) and UNIDO data, provided by Dr. Tetsuo Yamada, UNIDO statistical department (1975–2004).

At any rate, the contemporary geographic and systemic selective retreat of the respects for civil rights around the globe – an average positive trend development 1995–2003 notwithstanding – suggests that freedom is on the retreat precisely in those regions, where there were gains in freedom and human rights owing to the transformations of 1989 and the second and third wave of democratization of the 1980s and 1990s, thus partially contradicting the liberal globalist optimism inherent in the analysis by Soysa and Gleditsch (2002). The retreat of democracy and human rights will most probably go hand in hand with a more conflict-oriented foreign policy in years to come. Under the weight of globalization and the openings of markets, the weak economies and societies of the former communist world and several democracies of the South witness a real retreat of civil liberties.

Just as during the world depression of the 1930s democracy could not survive in the region (Polanyi 1957), today the danger arises that instability and not democratization will triumph in the end. The turning points in the long waves between the ascents and decline phases (B-phases) were always the beginnings of political decay in the region, while the ascent phases were associated with authoritarian modernization; time-lags between the Western cycle and the Eastern semi-periphery and periphery have to be taken into account. The decisive-kairos-years are (dates before 1756 from Goldstein, 1988):

1509
1539
1575
1621
1689
1756
1832
1885
1932
1975

The former hegemonic contenders from earlier global wars slowly slide into a non-acceptance of their status in the international system. The real power struggle erupts already soon after the great hegemonic war, and through the ups and downs of the history of the system evolves slowly into the hegemonic challenge. Seen in such a way, not 1989 or September 11, 2001, but Korea and Vietnam could become rather the benchmarks of the future W-structure of conflict in the international arena.

The triumphalism of America being the unrivalled military hegemonic power of our world notwithstanding, we believe that a serious strategic and political science analysis quickly reveals the direct manpower and other military constraints against continued U.S. military and political dominance in world affairs (Adams 2005). It is often said that like Old Rome, America is without parallels in terms of military strength. But such claims are, a simple myth, resting upon military spending figures that just demonstrate that the Pentagon spends a real lot of money converted into international exchange rates that are still favorable to the US Dollar but which are exchange rates untenable in the long run in view of the huge double deficits of the US economy. What is unparalleled in human history is not the ‘bang’ that the US Conventional Forces can deliver on the ground, especially in a guerrilla warfare situation, but the ‘buck’ that went to the Pentagon defense contractors,

indeed an amount really unparalleled around the globe. The US budget deficit is now at 3.46 % of GDP, the current account balance deficit per GDP 4.90 % (2003), as stated by 'Economist' Country Briefings, July 2005. The cumulated public debt of the United States is now 62.43 % of the US GDP. Compare this to the +2.44 % Maastricht budget data when President George W. Bush took office in 2000, as well as the current account deficit that was still only at 4.19 % of GDP the same year. When William Jefferson Clinton handed over the office of the President, the cumulated public debt of the United States was only 57.98 % of the US GDP. What military manpower is concerned, even the 'smaller' wars in Iraq and in Afghanistan show the extreme limits of the current capital intensive U.S. military doctrine, and for manpower reasons alone the US would be in no position to fight several conventional wars at the same time, let alone fighting another major confrontation at the same time as fighting the insurgencies in Iraq and Afghanistan.

The combination of factors that favor war and not peace in the world system could not be more adverse: the relationship between declining world political order (as measured by the Attinà defense pact index), declining world economic growth (as measured by the rates of world industrial production growth), rising war intensity (that only leveled off in the 1990s in order to increase anew, see above) and rising world inequality (as measured by the rising world GINI inequality index, calculated by Schultz) have to be reconsidered. Our hypothesis is – also in view of developments beyond the 1990s – that the belle époque of globalization from 1960–1990 did not bring about a more stable, egalitarian and peaceful world (see our quantitative analysis below).

The De-legitimization of the Contemporary Global Order, Agenda Setting and the Limits of the US Superpower

What does all this mean in terms of the concept of the 'balance of power'? To quote from Colin S. Gray, perhaps, the most influential strategist in the United States military apparatus:

(...) high-tech transformation will have only modest value, because war is a duel and all of America's foes out to 2020 will be significantly asymmetrical. The more intelligent among them, as well as the geographically more fortunate and the luckier, will pursue ways of war that do not test US strengths. Second, the military potential of this transformation, as with all past transformations, is being undercut by the unstoppable processes of diffusion which spread technology and ideas. Third, the transformation that is being sought appears to be oblivious to the fact claimed here already, that there is more to war than warfare. War is about the peace it will shape (Gray 2005: 20–21).

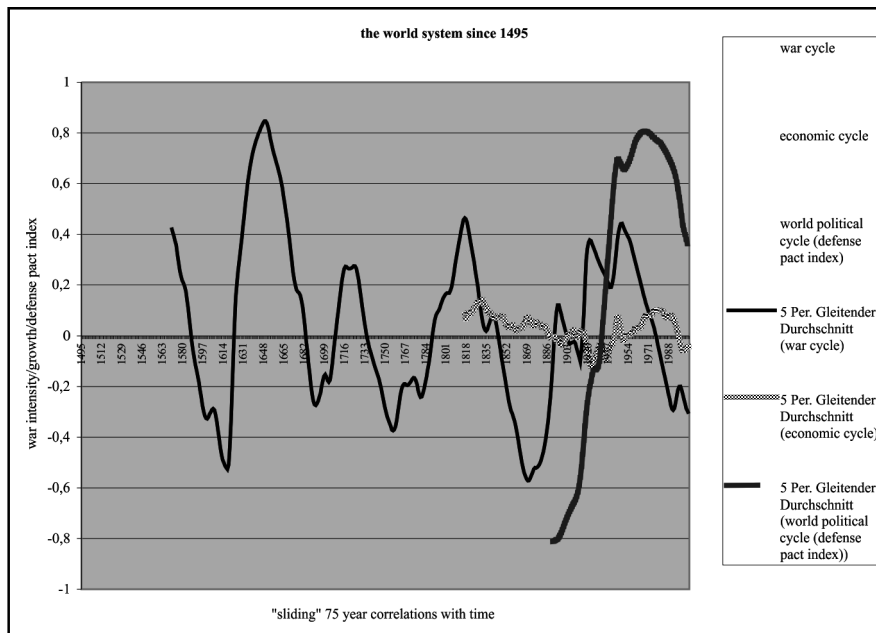
One of the most intriguing features of world systems theory is its prediction of the recurrence of global wars in the world capitalist system. In the 1990s, many people would have thought that after the end of the Cold War, such theories are rather obsolete. With growing military confrontations in Afghanistan, Iraq, *etc.* in the framework of the 'global war on terror' and with the growing military might of China, this theory tradition deserves at least a thorough empirical re-thinking and re-analysis.

The world systems approach takes a more cautious line than 'end of history' predictions and would not preclude – at least in principle – a repetition of the insane economic cycles

and major power rivalries that characterized the course of history since 1450 and which produced three devastating global wars, 1618–1648; 1793–1815; and 1914–1945 (see the by now classic contribution by Goldstein [1988]).

The following graph tries to summarize the deeper underlying logic of war, economics and conflict in the international system, each interpreted as a long logistic cycle of 150 years duration.

Graph 2. The logistic 150 year cycle of world politics, world economics, and global war



The graph clearly shows the ‘war peaks’ of the 30 Years War, the long French battle for world supremacy of the 18th century and the Napoleonic Wars, and German thrust towards world hegemony 1914–1945. The ‘logistic power cycle’ shows the waning type of order in the international system in the post-Cold-War-Period, and the end of the long post-World-War II boom years.

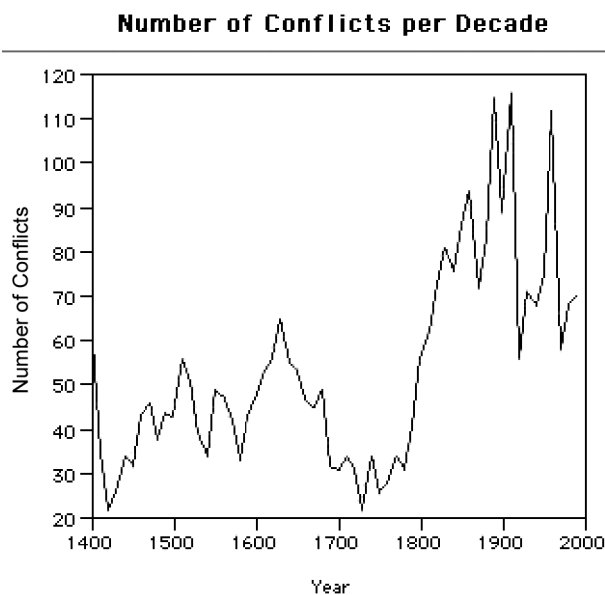
We challenged the neo-liberal assertion that globalization goes hand in hand with global peace by principally showing that battle fatalities from wars, in which the major powers (after 1945 the 5 members of the UN Security Council plus Germany) are involved, swing rhythmically in the world economy since around 1495, and that there is no support for the hypothesis that conflict levels will not increase again after the end of the Cold War in the long run. Thus, the liberal globalist case cannot be maintained on a 1:1 basis, because globalization increased after the 1970s as did battle fatalities from wars, in which the major powers are involved, which point in an upward direction, at least since 1989.

Brecke uses a different methodology as the one used in this study and also different from the study by de Soysa and Gleditsch, but comes pretty much to the same conclusions as we

do, namely that there is no era of peace and stability ‘around the corner’ (Brecke 1999). Brecke bases his research on conflicts since the 15th Century, which he put into ‘conflict catalog’, a listing of all recorded violent conflicts that meet Richardson’s magnitude 1.5 or higher criterion (32 or more deaths).

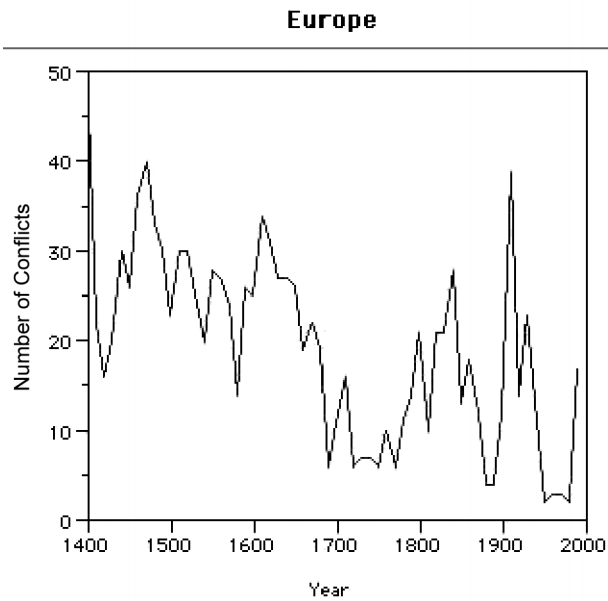
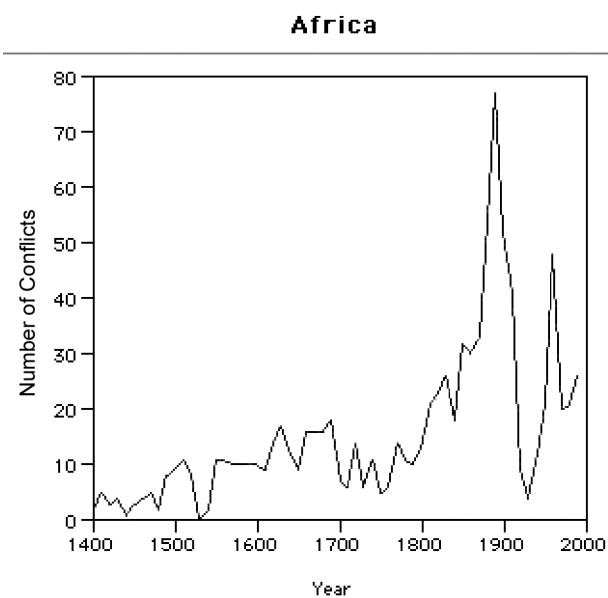
There is one very long and large cycle of conflicts from the mid-1400s to the mid-1700s, and a strongly fluctuating but certainly not linear downward trend from the mid-1700s onwards. In the last period before 2000, there is even an increase in the number of conflicts, and not a decrease. The main results of Brecke’s research paper (1999) on the level of the world system are then:

Graph 3. The world conflict cycles from 1400 to the present



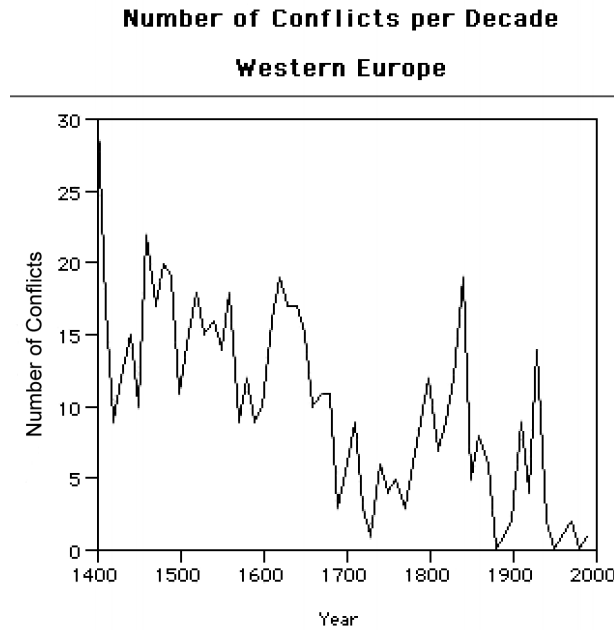
Note: this and the following graphs are reprinted from the internet version of the essay by Professor Peter Brecke (1999).

The two world regions with the highest conflict intensity, Europe and Africa, present the following picture.

Graph 4. The world conflict cycles from 1400 to the present – Europe**Number of Conflicts per Decade****Graph 5.** The world conflict cycles from 1400 to the present – Africa**Number of Conflicts per Decade**

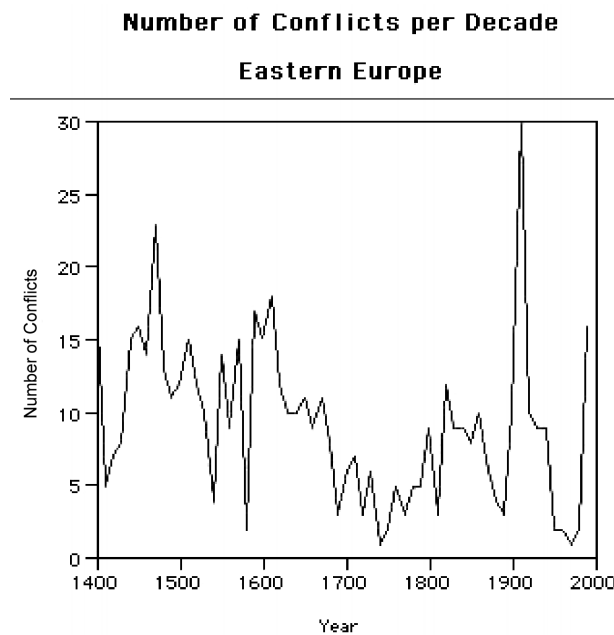
The regional breakdown for Western Europe and Eastern Europe is the following.

Graph 6. The world conflict cycles from 1400 to the present – Western Europe



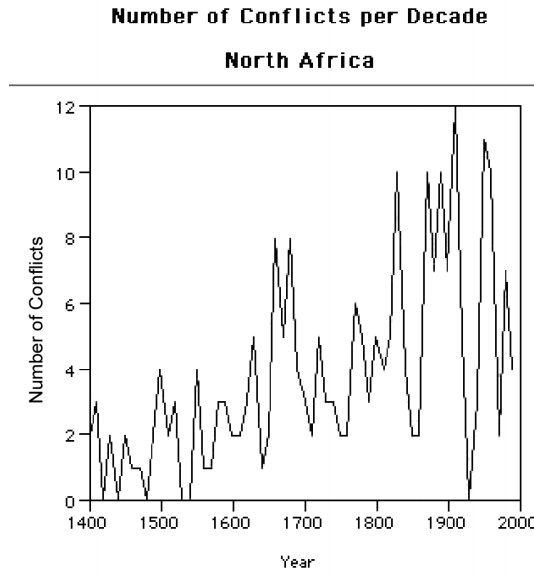
While there is indeed an era of peace and stability in Western Europe after the end of the Second World War, trends in Eastern Europe are more alarming and do not support the hypothesis that ‘the end of history’ is in sight.

Graph 7. The world conflict cycles from 1400 to the present – Eastern Europe



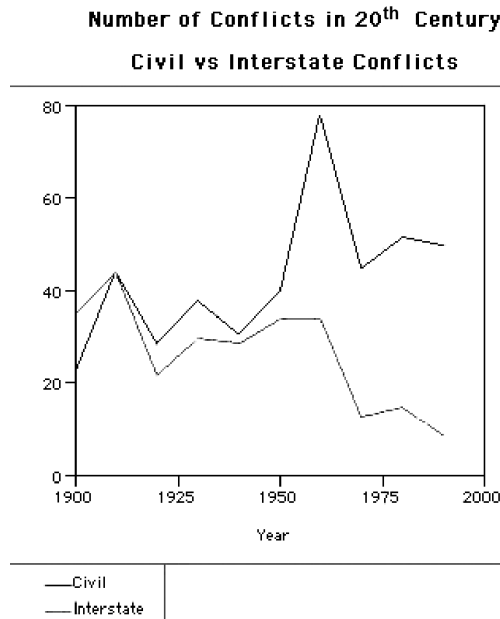
While Western Europe largely stabilized, the conflict potential especially in Africa increased over the last decades, thus de-stabilizing Europe's Southern neighborhood.

Graph 8. The world conflict cycles from 1400 to the present – Northern Africa



The well-known hypothesis about the growth of internal conflicts *versus* interstate conflicts is again confirmed in Brecke's study.

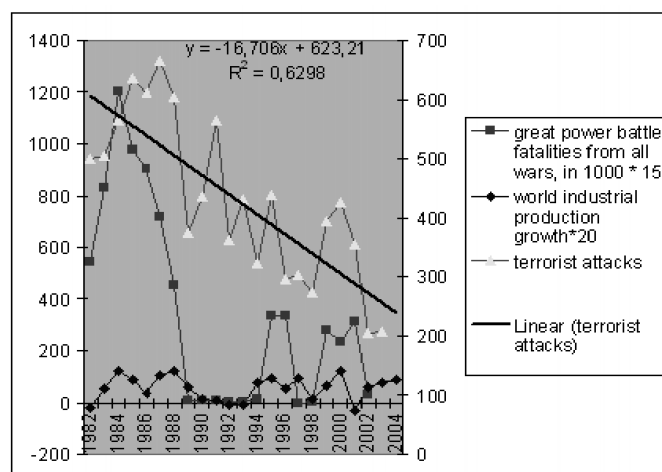
Graph 9. The world conflict cycles from 1900 to the present – civil versus interstate conflicts



Global Terrorism and the Kondratiev Cycle

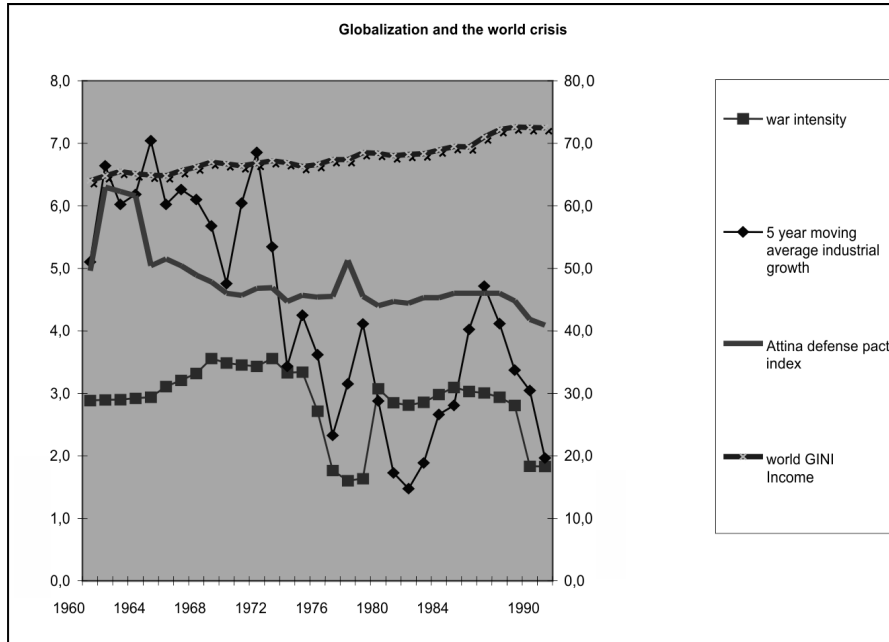
Our reading of the latest available, comparable figures on global terrorism from US State Department sources in the context of the Kondratiev cycle debate is certainly controversial. While our materials show that there a **long-lasting trends** towards conflict in world society, which are a reflection of the underlying hegemonial cycle, and that there are growing regional conflicts as well, the available hard data suggest a very '*Clintonian*' and '*Democratic Party*' reading of events. The fight against international terrorism showed its real fruits, September 11, 2000 notwithstanding, and there was a very clear downward trend in international terrorism (the R^2 for the linear estimate $> 62\%$) before events in Iraq will have overshadowed the performance. We only can guess at the trends after 2003, for the US State Department discontinued its comparable data series and now refers to the Homeland Security data, which do not allow world level aggregations.

Graph 10. The world since 1945: while US State Department data show that global terrorism diminished until the war in Iraq... the underlying conflicts in world society have increased



Sources. For global economics and conflict data see Tausch 2007; data on global terrorism: United States Department of State, available at: <http://www.state.gov/s/ct/rls/crt/2003/>.

.... the underlying conflicts in world society have increased



Legend: Calculations about world industrial production growth are based on the data, provided by Goldstein (1740–1974; based on Goldstein, 1988) and UNIDO data, provided by Dr. Tetsuo Yamada, UNIDO statistical department (1975–2004). All war-related calculations are based on the data on great power battle fatalities from all wars in 000 victims, 1495–2002. The data 1495–1945 (1975) were reported in Goldstein, 1988, the data 1946–2002 are based on the war data base as reported by PRIO Oslo (http://www.prio.no/page/CSCW_research_detail/Programme_detail_CSCW/9649/45656.htm) recalculated for the aims of a comparison of ‘great power battle fatalities from all wars’. Great Powers after 1945: the members of the UN Security Council plus Germany. Gleitender Durchschnitt: sliding average (5 year sliding averages). Polynomisch: polynomial expression. Battle fatality rates: 10th root of the original values. In addition to the previous graph, this analysis now compares the movements of international production and war with Professor Attina's defense pact index and the movements of world income inequality, as reported by Nobel laureate Ted Schultz. The graph shows the dangerous Kairos of world politics that we are confronted with: stumbling economic growth, rising world political tensions, rising world income inequality (world GDP at exchange rates), a withering world political order.

To further confront popular myths, the economic and employment performance in the predominantly Muslim regions of the world, especially in the Middle East and North Africa, was quite remarkable, given the severe constraints like the absence of a lasting peace in the region, *etc.*

Table 2. Decreasing poverty and increasing employment ratios in the Muslim world

Year	1995	2000	2005*	1995	2000	2005*
	(million)	(million)	(million)	share in total employment (%)	share in total employment (%)	share in total employment (%)
USD a day working poor						
World	627.4	582.0	520.1	25.7	22.1	18.3
Central and Eastern Europe (non-EU) and CIS	12.6	11.7	4.3	7.5	7.1	2.6
East Asia	174.8	150.3	104.0	24.7	20.2	13.4
South-East Asia and the Pacific	39.8	30.3	29.7	18.6	12.7	11.4
South Asia	252.9	224.2	202.3	55.1	44.3	35.8
Latin America and the Caribbean	23.5	27.0	28.0	12.5	12.9	11.8
Middle East and North Africa	2.6	3.5	3.5	3.1	3.5	2.9
Sub-Saharan Africa	121.1	134.9	148.3	57.8	57.4	56.3
USD a day working poor						
World	1'354.3	1'396.2	1'374.6	55.5	53.1	48.4
Central and Eastern Europe (non-EU) and CIS	53.8	57.6	21.1	32.0	35.0	12.5
East Asia	452.5	422.6	361.4	63.9	56.9	46.5
South-East Asia and the Pacific	143.6	147.8	150.0	67.2	62.1	57.6
South Asia	419.1	451.2	494.3	91.3	89.1	87.3
Latin America and the Caribbean	68.3	70.9	75.6	36.4	33.8	31.8
Middle East and North Africa	34.3	39.6	42.7	40.8	39.6	36.0
Sub-Saharan Africa	181.9	205.9	229.4	86.8	87.6	87.0

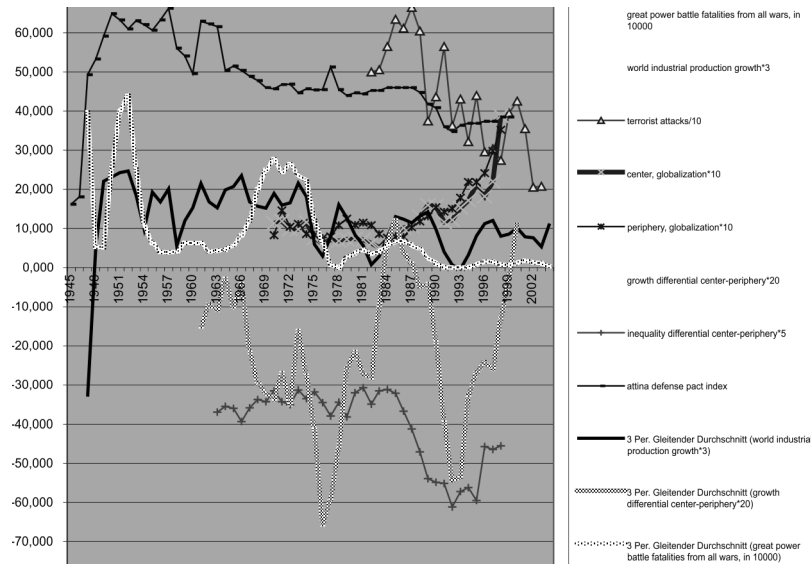
Sources: ILO Trends Poverty Model. For more information on estimation methodology, see S. Kapsos, 'Estimating growth requirements for reducing working poverty: Can the world halve working poverty by 2015?', Employment Strategy Paper, No. 14 (Geneva, ILO, 2004); available on website: <http://www.ilo.org/public/english/employment/strat/download/getb06en.pdf>. Differences from earlier estimates are due to revisions of the IMF estimates of GDP growth used in the model as well as revisions in the labour market data used. *2005 are preliminary estimates.

Region	Change in unemployment rate (percentage point) 2000–2005*	Unemployment rate (%)			GDP growth rate (%)			Employment-to population ratio (%)		Annual labour force growth rate (%)	Annual GDP growth rate (%)
		1995	2004	2005*	2004	2005*	2006 ^p	1995	2005*		
World	0.0	6.0	6.3	6.3	5.1	4.3	4.3	62.8	61.4	1.6	3.8
Developed Economies and European Union	0.0	7.8	7.1	6.7	3.3	2.5	2.6	55.8	56.4	0.7	2.6
Central and Eastern Europe (non-EU) and CIS	-0.4	9.4	9.5	9.7	8.2	5.7	5.5	55.5	52.1	0.1	4.0
East Asia	-0.2	3.7	3.7	3.8	8.7	8.0	7.5	75.2	71.7	1.0	7.6
South-East Asia and the Pacific	1.2	3.9	6.2	6.1	6.1	5.1	5.4	67.2	65.8	2.2	3.8
South Asia	0.2	4.0	4.7	4.7	7.1	7.1	6.4	58.9	57.2	2.2	5.8
Latin America and the Caribbean	-0.5	7.6	7.4	7.7	5.5	4.0	3.8	59.2	60.9	2.5	2.8
Middle East and North Africa	-0.7	14.3	13.1	13.2	5.4	5.0	5.3	44.2	46.4	3.5	4.4
Sub-Saharan Africa	-0.3	9.2	9.9	9.7	5.4	4.5	5.5	69.0	66.7	2.4	3.9

Source: ILO. Global Employment Trends Model, 2005. IMF. World Economic Outlook, September 2005; see also note to table 1. *2005 are preliminary estimates; p = projections.

Available data do not permit any other causal inferences about the downward trend of global terrorism than the hypothesis, to be gained from a visual inspection of the data, that **globalization** in both the centers and the peripheries increased dramatically while terrorism in fact **decreased**.

However, as we will show below, it is equally clear that neo-liberal globalization creates its contradictions and disturbances, and *ceteris paribus* negatively affects the overall development performance, while Muslim population per total population or membership of a country in the Organization of Islamic Conference – *again ceteris paribus* – even brings about positive performances in terms of economic growth, human development and the environment.

Graph 11. Global terror and world political cycles

Political Conclusions

Present attempts to stabilize the world order by bringing in the major Western industrialized countries plus Russia (the so-called G-8, composed by France, United States, United Kingdom, Russian Federation, Germany, Japan, Italy, Canada, European Union) must face up to the fact that these countries represent a declining part of world purchasing power. The rise of Asia makes the present G7/G8 structure increasingly irrelevant.

An interesting counter-position to overcome the present world governance inequalities is the G-20, largely created under the influence of the Chinese foreign policy. The members of the G-20 are the finance ministers and central bank governors of the following 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, Saudi-Arabia, South Africa, Turkey, the United Kingdom and the United States. Another member is the European Union, represented by the Council presidency and the President of the European Central Bank. The managing director of the IMF and the president of the World Bank, plus the chairpersons of the International Monetary and Financial Committee and Development Committee of the IMF and World Bank also participate in the talks as ex-officio members.

Some real 'ascending dragons' are outside the G-8 group. We can only underline here the point, driven home by the eminent US military strategist Colin S. Gray, who was an architect of President Ronald Reagan's armament strategy in the 1980s:

The menace of major, if not necessarily decisive, interstate war will return to frighten us when great-power rivals feel able to challenge American hegemony. If you read Thucydides, or Donald Kagan, you will be reminded of the deadly and eternal influence of the triad of motives for war: 'fear, honor, and interest'.

Unquestionably, there has been a radical change in the character of the dominant form of terrorism since the end of Cold War. The roots of this phenomenon lie in a crisis within the Islamic domain. However, it is ironic that the United States contributed hugely, though inadvertently of course, to al

Qaeda's development with its vast level of support for the holy warriors who defeated the Soviets in Afghanistan. Strategists should never forget the peril of ambush by the malign workings of the law of unintended consequences.

Al Qaeda is justly regarded today as the defining threat of this era. The catastrophic events of 9/11 certainly brought down the curtain on the strategically somewhat aimless interwar decade of the 1990s. But does the emergence of such terrorism signal an enduring change in the character of warfare? The answer has to be a resolute no. No guarantees can be offered, but it is as certain as anything can be in the inherently uncertain world of international conflict that al Qaeda will lose, and lose decisively. It will be beaten, but not by the United States and assuredly not by the US armed forces. Al Qaeda will be defeated by fellow Muslims devoted to moderate and modernizing policies (Gray 2005: 22–23).

Following our reasoning, inspired by world system theory and world system governance, the 'West' should try to accommodate as best as possible at least the legitimate aspirations of the rising world Muslim powers, like Indonesia, Turkey, Iran², Saudi-Arabia, Egypt, Bangladesh, Malaysia, Algeria and Morocco. The policies of Turkish accession to the European Union and the European Neighborhood Policies with the Mediterranean countries in the so-called Barcelona process have no alternative.

What is also really at stake in the forthcoming South eastern enlargement of the European Union to integrate Turkey is precisely to bridge the gap in these structures of global governance to include the largest Muslim economy of the globe into the structures of 'global governance'. Europe would be well advised to evaluate the possible positive repercussions of the integration of the world's largest Muslim economy into its fold also from this perspective. The top 18 global players control 90 % of the world's military expenditures. Likewise, global purchasing power is very unevenly distributed. In fact, the top 18 entities of the world economy – 17 nation states plus the EU-25 – again control 90 % of global economic power, while the rest of the world just has 10 %. However, there are serious imbalances among these world top power holders, insofar as the military power of the United States, Saudi Arabia, Russia, Turkey, Iran, Pakistan and China is not (as yet) supported by sufficient economic power, while in world military expenditure terms, the EU-25, Japan, Mexico, Canada, Brazil, Indonesia and Argentina are dwarfs in comparison to their gigantic economic status. It is to be expected that these imbalances will be closed some way or the other during the coming years.

What does all this mean in terms of the concept of the 'balance of power'? To quote again from Colin S. Gray:

Where Is the Balance of Power? (...) America is the hegemon by default. (...) As noted already, the past 15 years comprised principally a postwar, or interwar, period. The political and strategic behavior of those years reflected the temporary context provided by a world abruptly deprived of its balance-of-power architecture. (...) We can predict that although the transformation push may well succeed and be highly impressive in its military-technical accomplishments, it is likely to miss the most vital marks.

There are a number of reasons for this rather harsh judgment. First, high-tech transformation will have only modest value, because war is a duel and

² Integrating Iran under the present regime with its tendencies to negate the Holocaust, *etc.* is morally out of the question. The present author hopes that at the end of the day the Clergy will see to it that the regime returns to the conciliatory policies of Ayatollah Khatami [written August 31, 2006].

all of America's foes out to 2020 will be significantly asymmetrical. The more intelligent among them, as well as the geographically more fortunate and the luckier, will pursue ways of war that do not test US strengths. Second, the military potential of this transformation, as with all past transformations, is being undercut by the unstoppable processes of diffusion which spread technology and ideas. Third, the transformation that is being sought appears to be oblivious to the fact claimed here already, that there is more to war than warfare. War is about the peace it will shape (Gray 2005: 20–21).

Europe's economic power would suggest that Europe increases its share in global military expenditures by 4.7 %, while America's economic power, measured in the share of the US in world purchasing power, does not support their high share in global military outlays by more than 8 %.

Times and times again there was evidence in the literature that globalization leads to a cycle what Fernando Henrique Cardoso once termed:

- there is a financial and technological penetration by the developed capitalist centers of the countries of the periphery and semi-periphery;
- this produces an unbalanced economic structure both within the peripheral societies and between them and the centers;
- this leads to limitations on self-sustained growth in the periphery;
- this favors the appearance of specific patterns of class relations;
- these require modifications in the role of the state to guarantee both the functioning of the economy and the political articulation of a society, which contains, within itself, foci of inarticulateness and structural imbalance.

We have shown elsewhere (Tausch and associates, 2001–2006) that uncontrolled globalization leads to no end of the problem of structural violence. If we really want to achieve long-lasting breakthroughs in 'global governance', we have to reconsider the theoretical and practical implications of the 'CEPAL/ECLAC' – alternative approach to global governance, and not simply rely on the forces of 'world economic openness'. The synthesis of our empirical research results allows the hypothesis that the mobilization of internal savings and an active and stronger state, and less uncritical reliance on direct foreign investments, as was correctly foreseen by the early CEPAL/ECLAC-school (Flehsig 1987, 1994, 2000; Prebisch 1983, 1986, 1988a, 1988b; Singer 1971), are still the most efficient tools of 'global governance'. With neo-liberal economic and social governance continuing on an unabated scale, and with the world hegemonic power play by the United States entering the limit zone of its feasibility, the question about world systems governance transition enters the stage.

In their world-systems-based analysis of the spiral of capitalism and socialism, Boswell and Chase-Dunn (2000) arrive at the conclusion that the European Union would be best fitted to become an engine of socially progressive transformation of the world system. Such an analysis would find lots of sympathy among labor-oriented or social-movement oriented circles on both sides of the Atlantic and beyond, and is also reflected in various other 'denominations' of the world systems profession, like in the statements by Samir Amin, who – although very critical of the Union in its present form – speaks about the necessity for Europe to become an alternative pole in the world economy, characterized by the tendencies towards unfettered globalization.

The European role in transforming the present-day western-biased global governance system cannot be underestimated: the European Union as the driving force behind a movement towards global governance, as the only and reasonable alternative to the

workings of the capitalist world system and its tendencies towards inequality and conflict, was on the minds of several world system writers. This scenario is the policy-option and practical end-result of the assessment of future trends in the world system, presented by Boswell and Chase-Dunn (2000). Although there is a wide agreement in the literature on the need of a transition of the world system to a system of global governance (see Kiljunen 2000), the ways to achieve this are more or less a theme for speculation.

References

- Adams, K. R. 2005.** *New Great Powers: Who Will They Be, and How Will They Rise?* Department of Political Science, University of Montana. Paper prepared for presentation at the 2005 Annual Meeting of the International Studies Association. Honolulu, Hawaii, March 2–5.
- Amin, S. 1997.** *Capitalism in the Age of Globalization*. London: Zed Books.
- Arrighi, G. 1995.** *The Long 20th Century. Money, Power, and the Origins of Our Times*. London – New York: Verso.
- Arrighi, G., and Silver, B. J. 1984.** Labor Movements and Capital Migration: The United States and Western Europe in World-Historical Perspective. In Bergquist, Ch. (ed.) *Labor in the Capitalist World – Economy* (pp. 183–216). Beverly Hills, CA: Sage.
- Arrighi, G., and Silver, B. J. 1999.** *Chaos and Governance in the Modern World System*. Minneapolis: University of Minnesota Press.
- Attinà, F. 2002.** *Politica di sicurezza e difesa dell'Unione europea: il cammino europeo dopo il trattato di Amsterdam*. Gaeta: Artistic & Publishing Company.
- Attinà, F. 2003a.** Organisation, Competition and Change of the International System. *International interactions* 16(4): 317.
- Attinà, F. 2003b.** The Euro-Mediterranean Partnership Assessed: The Realist and Liberal Views. *European Foreign Affairs Review* 8(2): 181–199.
- Attinà, F. 2004.** The Barcelona Process, the Role of the European Union and the Lesson of the Western Mediterranean. *Journal of North African Studies* 9(2): 140–152.
- Attinà, F. 2005.** *State aggregation in defense pacts: systematic explanations*. Jean Monnet Working Papers in Comparative and International Politics, Jean Monnet Centre EuroMed, Department of Political Studies, University of Catania.
- Beck, N. 1991.** The Illusion of Cycles in International Relations *International Studies Quarterly* 35: 455–476.
- Bobróvnikov, A. V. 1989.** La periodización y las peculiaridades de las crisis de la deuda externa en América Latina. In Davydov, V., and Lunin, V. *La crisis de la deuda externa en la periferia latinoamericana del capitalismo mundial* (pp. 37–52). Moscú: Instituto de América Latina. *In Russian*.
- Bobróvnikov, A. V. 1994.** Ondas largas en la economía y los procesos sociales. *América Latina* (4): 4–12; (7–8): 65–75 (in Russian).
- Bobróvnikov, A. V. 1996.** Los niveles de equilibrio en la economía. *Almanaque América Latina* 2: 98–106.
- Bobróvnikov, A. V. 1999.** Los epicentros regionales del desarrollo. *Iberoamérica* 4: 49–67.
- Bobróvnikov, A. V. 2002.** *La dinamica ondularia en la economía periférica*. Ponencia en el Tercer Congreso Europeo de Latinoamericanistas Cruzando Fronteras en América Latina”

- Amsterdam, 3–6 julio de 2002, available from the author at: Instituto de Latinoamérica de la Academia de Ciencias de Rusia, Federación Rusia.
- Bornschier, V. 1988.** *Westliche Gesellschaft im Wandel*. Frankfurt a. M.: Campus.
- Bornschier, V. 1996.** *Western Society in Transition*. New Brunswick, NJ: Transaction.
- Boswell, T. 1999.** Hegemony and Bifurcation Points in World History. In Bornschier, V., and Chase-Dunn, C. K. (eds.) *The Future of Global Conflict* (pp. 263–284). London: Sage Publications.
- Boswell, T. and C. K. Chase-Dunn. 2000.** *The Spiral of Capitalism and Socialism. Toward Global Democracy*. Boulder, CO: Lynne Rienner.
- Brecke, P. 1999.** *Violent Conflicts 1400 A.D. to the Present in Different Regions of the World*. Atlanta, GA: The Sam Nunn School of International Affairs, Georgia Institute of Technology.
- Chase-Dunn, C. K., and Podobnik, B. 1995.** The Next World War: World-System Cycles and Trends. *Journal of World Systems Research* 1(6).
- Devezas, T. C. 2006. (Ed.).** *Kondratieff Waves, Warfare and World Security*. Amsterdam: Iospress.
- Flechsigt, St. 1987.** Raul Prebisch – ein bedeutender Oekonom Lateinamerikas und der Entwicklungslaender. *Wirtschaftswissenschaft* 35(5): 721–741.
- Flechsigt, St. 1994.** Raúl Prebisch (1901–1986) – ein bedeutendes theoretisches Vermaechtnis oder kein alter Hut. *Utopie kreativ* 45/46: 136–155.
- Flechsigt, St. 2000.** The Heritage of Raúl Prebisch for a Humane World. *Globalization, Liberation Theology and the Social Sciences. An Analysis of the Contradictions of Modernity at the Turn of the Millennium*. Commack, NY: Nova Science.
- Frank, A. G. 1998.** *ReOrient: Global Economy in the Asian Age*. Ewing, CA: University of California Press.
- Goldstein, J. S. 1988.** *Long Cycles. Prosperity and War in the Modern Age*. New Haven, CT: Yale University Press.
- Goldstein, J. S. 2005.** The Predictive Power of Long Wave Theory, 1989–2004. Prepared for NATO conference on Kondratiev Waves and Warfare, Covilha, Portugal, Feb. 2005.
- Gray, C. S. 2005.** How Has War Changed Since the End of the Cold War? *Parameters. U.S. Army War College Quarterly* Spring: 14–26.
- Kiljunen, K. 2000.** *Global Governance Draft*. Helsinki: Finnish Parliament.
- Kondratiev, N. D. 1984.** *Long wave cycle. Transl. by Guy Daniels; introd. by Julian M. Snyder*. New York: Richardson & Snyder.
- Kondratiev, N. D. 1998.** *Works of Nikolai D Kondratiev. Ed. by Natalia Makasheva and Warren J. Samuels*. London – Brookfield, Vt.: Pickering & Chatto.
- Modelski, G. 1987.** *Long Cycles in World Politics* Basingstoke: Macmillan.
- Modelski, G. 1995.** The Evolution of Global Politics. *Journal of World Systems Research* 1(7).
- Modelski, G. 1999.** From Leadership to Organization: The Evolution of Global Politics. In Bornschier, V., and Chase-Dunn, C. K. (eds.) *The Future of Global Conflict* (pp. 11–39). London.
- Polanyi, K. 1957.** *The Great Transformation*. Boston, MA: Beacon.
- Prebisch, R. 1983.** The crisis of capitalism and international trade. *CEPAL Review* 20: 51–74.

- Prebisch, R. 1984.** Five Stages in My Thinking on Development. In Meier, G. M. and Seers, D. (eds.) *Pioneers in Development* (pp. 175–191). New York, NY: Oxford University Press.
- Prebisch, R. 1986.** The Dynamic Role of the Periphery. In Ahojja-Patel, K., Drabek, A. G., and Nerfin, M. (eds.) *World Economy in Transition: Essays Presented to Surendra Patel* (pp. 3–9). Oxford: Pergamon Press.
- Prebisch, R. 1988a.** Dependence, Development, and Interdependence. In Ranis, G., and Schultz, T. P. (eds.) *The State of Development Economics*. Oxford: Basil Blackwell.
- Prebisch, R. 1988b.** *Raúl Prebisch, pensamiento y obra* Fundación Raúl Prebisch. Buenos Aires: Editorial Tesis.
- Scandella, L. 1998.** *Le Kondratieff. Essai de théorie des cycles longs économiques et politiques*. Paris: Economica, Economie poche.
- Silverberg, G. 2005.** *When is a Wave a Wave? Long Waves as Empirical and Theoretical Constructs from a Complex Systems Perspective*. Maastricht Economic Research Institute on Innovation and Technology, MERIT Infonomics Research Memorandum series, 016.
- Singer, P. I. 1971.** *Força de trabalho e emprego no Brasil: 1920–1969. Com a assistência de Frederico Mazzucchelli nos cálculos e na redação do anexo metodológico*. São Paulo CEBRAP.
- Singer, P. I. 1971.** *Dinámica de la población y desarrollo* Mexico D.F.: Ed. Siglo I.
- Soysa, I. de, and Gleditsch, N. P. 2002.** The Liberal Globalist Case. In Hettne, B., and Oden, B. (eds.) *Global Governance in the 21st Century: Alternative Perspectives on World Order* (pp. 26–43). Stockholm: Almqvist & Wiksell.
- Tausch, A. 2001.** Mature Economy. In Barry Jones, R. J. (ed.), *Routledge Encyclopedia of Political Economy*. Vol. 2, (pp. 1007–1008). London: Routledge.
- Tausch, A. 2001.** *Sozial- und gesundheitspolitische Aspekte der EU-Erweiterung*. Schriftenreihe des Zentrums für europäische Studien, Jean Monnet Lehrstuhl für europäische Studien, Universität Trier. Band 48.
- Tausch, A. 2002.** Evropeiskii Sojuz i buduschaja mirovaja sistema. *Evropa* 2(3): 23–62. In Russian.
- Tausch, A. 2002.** The European Union and the World System. In Stemplowski, R. (ed.) *The European Union in the World System Perspective* (pp. 45–93). Warsaw: Polish Institute for International Affairs.
- Tausch, A. 2003. (Ed.).** *The Three Pillars of Wisdom? A Reader on Globalization, World Bank Pension Models and Welfare Society*. Hauppauge, New York: Nova Science.
- Tausch, A. 2003.** Social Cohesion, Sustainable Development and Turkey's Accession to the European Union. *Alternatives: Turkish Journal of International Relations* 2(1).
- Tausch, A. 2003.** The European Union: Global Challenge or Global Governance? 14 World System Hypotheses and Two Scenarios on the Future of the Union. In Kohler, G., and Chaves, E. J. (eds.) *Globalization: Critical Perspectives* (pp. 93–197). Hauppauge, NY: Nova Science.
- Tausch, A. 2003.** The European Prospects: Towards the Creation of the Common Mediterranean House and the Positive Social Development Capability of Islamic Countries. *Evropa* 4(9): 87–109. In Russian.
- Tausch, A. 2004.** Die EU-Erweiterung und die soziale Konvergenz. Ein Working Paper zur Globalisierung und wachsenden Ungleichheit im neuen und alten Europa. *Studien von Zeitfragen* 38(2): 1–185.

- Tausch, A. 2004.** Europa – groß und mächtig? In Rosecker, M., and Müller, B. *Solidarität. Gesellschaft, Gemeinschaft und Individuum in Vergangenheit, Gegenwart und Zukunft* (pp. 98–126). Wiener Neustadt, Austria: Verein Alltag Verlag.
- Tausch, A. 2004.** *Soziale und regionale Ungleichgewichte, politische Instabilität und die Notwendigkeit von Pensionsreformen im neuen Europa*. Schriftenreihe des Zentrums für europäische Studien, Universität Trier, Band 56.
- Tausch, A. 2004.** Towards a European Perspective for the Common Mediterranean House and the Positive Development Capability of Islamic Countries. In Attina, F., and Rossi, R. (eds.) *European Neighbourhood Policy: Political, Economic and Social Issues* (pp. 145–168). Catania: Università degli Studi di Catania Facoltà di Scienze Politiche.
- Tausch, A. 2004.** Waiting for the Next Tsunami. *Asia Times* 5: 1–5.
- Tausch, A. 2005.** Did Recent Trends in World Society Make Multinational Corporations Penetration Irrelevant? Looking back on Volker Bornschiers development theory in the light of recent evidence. *Historia Actual On-Line* 6.
- Tausch, A. 2005.** Europe, the Muslim Mediterranean and the End of the Era of Global Confrontation. *Alternatives: Turkish Journal of International Relations* 3(4): 1–29.
- Tausch, A. 2005.** Is Islam Really a Development Blockade? 12 predictors of development, including membership in the Organization of Islamic Conference, and their influence on 14 indicators of development in 109 countries of the world with completely available data. *Insight Turkey* 7(1): 124–135.
- Tausch, A. 2006.** On heroes, villains and statisticians. *The Vienna Institute Monthly Report* 7: 20–23.
- Tausch, A. 2006.** *The City on a Hill? The Latin Americanization of Europe and the Lost Competition with the U.S.A.* Amsterdam: Rozenberg and Dutch University Press.
- Tausch, A. 2006.** Für Rückkehr der Vernunft in der Türkei-Politik. *Europäische Rundschau* 34(1): 121–132
- Tausch, A., and Heshmati, A. 2006.** Turkey and the Lisbon process. A short research note on the position of Turkey on a new ‘Lisbon Strategy Index’ (LSI). *Insight Turkey* 8(2): 7–18.
- Tausch, A. 2007.** *From the ‘Washington’ towards a ‘Vienna Consensus’? A quantitative analysis on globalization, development and global governance*. Hauppauge, NY: Nova Science Publishers.
- Tausch, A., and Herrmann, P. 2001.** *Globalization and European Integration*. Huntington, NY: Nova Science.
- Tausch, A., and Köhler, G. 2001.** *Global Keynesianism: Unequal exchange and global exploitation*. Huntington, NY: Nova Science.
- Tausch, A., and Berman, R. A. 2005.** ‘Yet Another Reason They Dislike Us. Europe is Rich, but the United States is Richer’. *Hoover Digest* 1: 69–73.
- Tausch, A., and Herrmann, P. 2005.** *Dar al Islam. The Mediterranean, the World System and the Wider Europe*. 1. *The ‘Cultural Enlargement’ of the EU and Europes Identity*; 2. *The Chain of Peripheries and the New Wider Europe*. Hauppauge, NY: Nova Science Publishers.

The Impact of Globalization on the Formation of the Global Political System

Ilya V. Ilyin and Alexander S. Rozanov

The aim of this paper is to analyze the impact of globalization on the formation of the global political system. Taking into account the fact of global political evolution, the authors of the article point out that global political structures tend to change. During the past century the global political architecture changed greatly from the state of the low degree of cohesion and a simple structure to a fairly high level of unity and strong structure of today. Moreover, this development of the global political order was not just a simple change in the system of world relations, but also a directed search for such forms of organization that will be acceptable for a growing population. Furthermore, the development of a global political order was evolutionary in the sense that it took place as a 'natural' process of 'trial and error' (it can be viewed as a phenomenon of the deployment of evolution), which does not require a postulation of a general plan or focus.

Keywords: *global political system, globalization, political globalization, global political processes, global political order, global problems, world politics.*

Over many centuries, human societies across the globe have established progressively closer contacts. Recently, the pace of globalization has dramatically increased. Unprecedented changes in communications, transportation, and computer technology have given the process new impetus and made the world more interdependent than ever.

What is 'globalization'? Roland Robertson, the Professor Emeritus of Sociology at the University of Aberdeen (Scotland) and Distinguished Professor of Sociology Emeritus at the University of Pittsburgh (USA), defines it as 'the compression of the world and the intensification of consciousness of the world as a whole' (Robertson 1992). According to George Modelski, the Professor Emeritus in the University of Washington (USA), globalization is 'a set of processes by which global institutions, economic, political, social, and cultural, emerge to handle a rising load of global problems and transnational interactions' (Modelski 1996). The experts of the International Forum on Globalization (IFG) refer this process to 'the present worldwide drive toward a globalized economic system dominated by supranational corporate trade and banking institutions that are not accountable to democratic processes or national governments'.¹

As we can see, globalization is a many-sided process which covers all areas of human activities. Thus, we define globalization as a dialectical, dynamic and non-linear process of socio-natural integrity, characterized by an increasing complexity and interdependence of all elements of the global system (Ilyin and Ursul 2012).

¹ International Forum on Globalization. San Francisco: The IFG; [cited 2006 June 1]. Homepage available at <http://www.ifg.org/analysis.html>

Taking into account the process of global political evolution (Modelski 2002), we would like to emphasize that the development of the global political order has not been just a simple change in the system of world relations, but also a directed search for such forms of organization that will be acceptable for a growing complexity. Thereby, let us try to define the essence of the global political system.

Global political system is a system of global stratification of the world political actors, a set of interacting and/or interdependent 'global institutions' (Attina 2011: 224) of political power and governance. When analyzing Fulvio Attina's book *The Global Political System*, William R. Thompson underlines the fact that the modern world may not have a fully functioning central government but it has many of its characteristics like leadership, institutions, and concerns about authority and legitimacy. In other words, we are talking about a system of elements of a global political order with a certain structure (architecture) and hierarchy.

How can we characterize the impact of globalization on the formation of the global political system? As globalization is a worldwide process we can emphasize several key points of such an impact:

Global political processes are an integral part of global processes (Holsti 2004), and therefore they affect the structure of relations in the world. Thus, the global political process could be defined as a change of state, structure and hierarchy of a global political order (global political system) and/or elements that influence the dynamics of the global development.

On the one hand, global political processes are the result of global political actors' collective activity, the product of reproduction and changes in the global political system and its individual components.

On the other hand, the global political processes lead to changes in policy and related economic, social, cultural, legal, ideological, moral and other relations between the countries and regions of the global world.

In this case, global political system acts as an open system, and its non-equilibrium state is characterized by the instability of the functioning of the global political institutions of government and administration, as well as the global economic crisis. There is an intensive exchange of resources – material (raw materials, energy, and commodities), technologies, ideas, culture achievements *etc.* – between political actors in the global world, which is the sum of its sub-systems.

By globalization processes we also mean the processes which cause the structural transformation of the world order; their aim is to remove obstacles for the mobility of all factors of production, as well as for the growth of number and diversity of actors and the increasing interdependence between them in the sphere of economy, politics, culture *etc.* In this respect, we consider *political globalization* as a global political, dynamic and nonlinear process of reinforcement of interdependence between all the elements of the global political system.

However, we should especially emphasize the complexity and contradictory character of political globalization as a process of 'global political evolution' (Modelski and Devezas 2007), which should be defined as a long-range process of the formation of a global polity (short for global political system), exemplified by structural change in the global polity, from leadership to organization (Modelski 2009).

Along with the trends that contribute to the convergence of certain countries and regions of the world we can see the processes leading to the divergence of its key players' status. For example, there are deep gaps between different countries within political, economic, social and technological fields. Being a highly controversial process, political globalization is constantly changing its specific forms, mechanisms and methods of implementation. We also face changes in manifestation of political globalization: 'old' global problems are transforming into 'new', more complicated global issues. By global problems we mean issues that are common to all humankind and affect interests of every individual, every human group, and humanity in general; these are negative effects of global processes in the social sphere.

Two major trends that have had an overwhelming influence on the strategic landscape deserve mention. These are the collapse of the bipolar system and the resurgence of globalization. The global world is changing due to the acceleration and deepening of globalization; new categories appear for characterizing its structure. However, some terms have not received an 'institutionalized' status yet.

Thus, such important categories of political global studies like the '*pole*' and '*centers of power*' (Lukyanov 2010) are not generally acknowledged and do not have a precise definition.

These categories are used by default (in the case of a multipolar world), sometimes these concepts fit together and appear as synonyms, causing some confusion and conceptual imprecision of futuristic models of the global world. Let us try to determine the relationship between these categories and their content.

There are two most common approaches to the description of the global world's pole (Leonova 2012; see also in this volume). The first approach emphasizes the political aspect of the content of this category, so we use the term 'political pole'. Thus, a political pole can be considered as a state in charge of a group of countries. Nonetheless, the 'in charge' aspect varies even within the aligned groups (all depends on the degree of hierarchy).

During the confrontation between the USSR and the USA, both states were the 'poles' and the leaders of two confronting systems – the 'socialist' and the 'capitalist' respectively. A significant number of countries (particularly in Asia, Africa and Latin America) formed the so-called 'Third World'. That was a bipolar model of the world order. Striving for hegemony, both poles developed their military-industrial sectors as a priority task. However, having a huge nuclear arsenal, they came to realize that the war between them would lead to mutual assured destruction of two states, and perhaps the world. This ruled out the possibility of a large-scale military conflict between the two poles. The 'pole' in the bipolar world is the coordinator of actions within its sphere of influence and defines the internal and foreign policy of the states under its control.

In a multipolar world, the pole's role is the same as in the case of the bipolar world order. However, the relationship between the poles becomes more complex. In a bipolar model the poles are rivals; in a multipolar world a temporary tactical alliance of two poles against the third pole is possible. Such alliance allows leveling the distinct advantage of the third pole, slowing down the growth of its influence and stabilizing the situation on the international scene.

In terms of global security, both in bipolar and in multipolar systems of international relations no pole would dare unleash a global military conflict that could become not only a threat for the world economy, social and cultural ties between nation-states, but also the

annihilation of most of the world's population. The pole's power and responsibility are determined by its allies and satellites, so this actor of international relations is interested in the successful development of all its members, since this fact alone guarantees it the status of the 'pole' among other super-powers.

Within another approach, the 'pole' in a unipolar world is considered as a state with enormous political, economic or military advantage over most other states. Actually, the 'pole' is the most powerful state not only in a certain region, but it also has a global influence. Using its powerful influence, the 'pole' considers the entire planet as its sphere of interest. Such influence is pervasive: it is able to dictate terms to any state, using various kinds of sanctions (economic, diplomatic, *etc.*) or by providing direct military action.

Thus, analyzing the existing approaches to interpretation of the global world's 'poles', we offer the following definition of a 'pole' in the context of political Global Studies. The 'pole' is an element of the global political system, which has significant military, economic, political and civilizational resources to successfully interact/compete with other poles and actors of the global politics.

In the context of the global political system we can talk about the emergence of a new world order based on global stratification of the actors of the world politics (Kegley and Blanton 2011) and their network interaction. The process of organization, in contrast to self-organization, can be characterized by establishment of homogeneous stable structures (typical examples are global international organizations such as the UN, UNESCO, WTO; moreover, some major regional organizations like the European Union, NATO, Mercosur *etc.* show more signs of 'globality' [Robertson 1983]).

The result of self-organization is the emergence, communication, co-evolution and, possibly, the regeneration of dynamic objects (subsystems), which are more complex than the elements of the environment from which they arise. Global political system and its components are certainly dynamic entities. A striking example of such self-organization is the creation of European Banking Union² which involves launching the single bank supervisory mechanism and a system of direct bank recapitalization, which is also able to ensure a partial or complete bankruptcy of troubled banks without the risk of 'domino effect' in the whole European financial system. The European Union, therefore, is a dynamic, self-organizing supranational system of economic, political, social and cultural relations.

The accumulation of all kinds of poles (political, economic, military, cultural *etc.*) in the same local geopolitical space (Ashley 1987) forms a 'center of power' of the multipolar world. The power always has many faces. There is a military, political, economic, moral and other kinds of power. Therefore, the center of power, as opposed to the 'pole', has a certain polysemantic 'effect'; it is a multi-dimensional concept that combines a set of local characteristics of existing poles of a multipolar world (Leonova 2012).

The '*center of power*' can be defined as an element of the global political order, a set of military, economic, political, social and cultural resources of the state, the presence of which characterizes its geo-strategic, geo-economic, geo-political, social and cultural potentials and provides the possibility to actively participate in the processes of global

² 'Following months of tortuous negotiations, finance ministers from the European Union's 27 countries agreed to hand the ECB the authority to directly supervise the Eurozone's biggest banks and intervene in smaller banks at the first sign of trouble' (13 December 2012, <http://www.telegraph.co.uk/finance/financialcrisis/9741553/EU-nations-agree-to-eurozone-banking-union.html>).

governance (Leonova 2012) and to implement the function the international distribution of power (Wilkinson and Hughes 2003: 1–2).

Thus, we consider that the transition to a new structure of the global political system is possible only through the acceleration of political globalization. The world economic crisis of 2008–2009 has become a bifurcation point of the current structure of the global world. Perhaps, it has served as a ‘jump’ from unipolar world to a more stable system of multipolarity. So the crisis can be viewed as a phase transition to the formation of a new ‘crystal lattice’ (architecture) of the global political order.

References

- Ashley, R. 1987.** The Geopolitics of Geopolitical Space: Toward a Critical Social Theory of International Politics. *Alternatives* 12(4): 403–434.
- Attina, F. 2011.** *The Global Political System*. Basingstoke: Palgrave MacMillan.
- Holsti, K. J. 2004.** From States Systems to a Society of States: The Evolution of International Relations. In Wiener, J., and Shrire, R. A. (eds.), *International Relations* (pp. 75–98). Oxford: Eolss Publishers.
- Ilyin, I. V., and Ursul, A. D. 2012.** Globalistics: An Introduction. *Journal of Globalization Studies* 3(1): 111–124. URL: <http://www.socionauki.ru/journal/articles/142634/>
- Kegley, Ch. W., and Blanton, Sh. L. 2011.** *World Politics: Trend and Transformation*. Boston, MA: Wadsworth Publishing Company.
- Leonova, O. G. 2012.** New Geopolitical Trends in the Globalized World. In Grinin, L. E., Ilyin, I. V., and Korotayev, A. V. (eds.), *Globalistics and Globalization Studies* (pp. 285–290). Volgograd, Russia: Uchitel Publishing House.
- Lukyanov, F. 2010.** Rethinking Russia: Russian Dilemmas in a Multipolar World. *Journal of International Affairs* 63(2): 19–32.
- Modelski, G. 1996.** Evolutionary Paradigm for Global Politics. *International Studies Quarterly* 40: 321–342.
- Modelski, G. 2002.** Long Cycles in Global Politics. Prepared for *Encyclopedia of Life Support Systems*. Oxford: EOLSS Publishers Co Ltd.
- Modelski, G. 2009.** From Leadership to Organization: The Evolution of Global Politics. In Ziccardi Capaldo, G. (ed.), *The Global Community: Yearbook of International Law and Jurisprudence*. Vol. I (pp. 43–76). New York: Oxford University Press.
- Modelski, G., and Devezas, T. 2007.** Political Globalization is Global Political Evolution. *World Futures* 63(5–6): 308–323.
- Robertson, R. 1983.** *Interpreting Globality*. In Robertson, R. (ed.), *World Realities and International Studies* (pp. 7–19). Glenside, PN: Pennsylvania University Press.
- Robertson, R. 1992.** *Globalization: Social Theory and Global Culture*. London: Sage.
- Wilkinson, R. 2003.** Global Governance: A Preliminary Interrogation. In Wilkinson, R., and Hughes, S. (eds.), *Global Governance. Critical Perspectives* (pp. 1–14). London – New York: Routledge.

Globalization, Migration and Labour: Imperatives for a Rights Based Policy¹

Patrick A. Taran

Migration has always been an essential component of economic development and social progress in many countries. Labour migration becomes one of the most important sources of regional integration, where regulation of labour migration is implemented at the regional level, for only such large integration unions that exploit the advantages of markets, resource bases and labour potentials amalgamation, can hold out against increasing competition within globalizing world. However, if migration is not regulated by adequate laws and rules, it carries a high risk to violate the rights of people participating in it and to create social tension. Today the discussion on migration represents contradiction between economic logic of globalization, on the one hand, and those moral values which are incarnated by human rights concept – on the other. The focus of such contradictions often concentrates on directly opposite views concerning the way migrants' rights protection, especially those who do not have legal status, and the ways of guaranteeing security and social stability if foreign citizens prove to be under protection of national legislation. Within everyday reality this contradiction puts migration in the centre of discussion concerning interaction of labour and capital, distribution of economic activities incomes, and how foreign working people and civil society can organize themselves in order to clearly formulate and protect their own rights.

Keywords: globalization, migration, migrants, trade-union, labour, labour migration, policy, human rights, European Union, ethnic minority, discrimination, security, illegal, employment, convention, migratory policy, dialogue, responsibility.

[A]ll human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity.

*Declaration of Philadelphia 1944.*²

History tells us that migration has been an essential constituent of economic development and social progress of many countries. Migration is making vast but often unrecognized contributions to economic development of most countries of the Commonwealth of Independent States (CIS), whether in providing labour power and skills for Kazakhstan

¹ This article was first published in *Journal of Globalization Studies*, Vol. 2, Num. 1, 2011, pp. 58–77.

² Declaration of Philadelphia concerning the Aims and Purposes of the International Labour Organization (ILO), Sections I(a) and II(a) respectively. The Declaration was adopted by the International Labour Conference in 1944 and incorporated as an annex into the revised ILO Constitution of 1946 (when the ILO also became the first specialized agency of the UN). For the Constitution and Declaration, see <http://www.ilo.org/public/english/about/iloconst.htm#pre>

and new Russia, opportunities for employment abroad and remittance income in Central Asia, the Caucasus, Moldova and the Ukraine.

Labour migration is becoming one of the most important keys to regional integration and development, whether among European States, in the Southern Africa Development Community, or in South America's Mercosur. It is key in those areas precisely because it is regulated and harnessed in regional, interstate spaces of economic and social integration. Only such spaces of larger markets, larger resource bases and larger labour forces will be able to meet the competitive demands of a globalized world. This is true for the CIS as well.

However, unless regulated by appropriate laws and regulations, migration entails a high cost in violations of rights of individuals, in social disruption, in lost or reduced productivity, and lost opportunities for economic growth and development.

Migration today, and the contention over recognition of migrants' rights, represents a cutting edge of contention between the economic logic of globalization and the moral values embodied in human rights concepts and law. This contention is marked by acrimonious policy debate in countries North and South and in international conferences. At the heart of these debates are often opposing views regarding the extent to which human rights protections apply to migrants – especially those in irregular situations – as opposed to both security and social considerations relativizing or excluding foreigners from protection under national law.

In day to day reality, this contention makes migration a central and significant arena of dispute and redefinition in relations between labour and capital, in distribution of benefits deriving from economic activity, in the level of protection and regulation of conditions of employment and work, and in the extent working people – foreign workers in particular – and civil society can organize to articulate and defend their interests.

Role of Migrant Labour Today

In the economic realm, migrant labour has become a key feature in meeting economic, labour market and productivity challenges in a globalized economy. Migration today serves as an instrument to adjust the skills, age and sectoral composition of national and regional labour markets. Migration provides responses to fast-changing needs for skills and personnel resulting from technological advances, changes in market conditions and industrial transformations. In countries of aging populations, migration offers a potential to replenish declining work forces as well as to inject younger workers, potentially increasing dynamism, innovation and mobility in work forces.

It is a global phenomena; no region and few countries are untouched. ILO has calculated that today, some 105 million foreigners are economically active, that is to say employed, self-employed or otherwise active in remunerative activity, across the world (ILO 2010). That is nearly half of the total 214 million people living outside their country of birth or citizenship as of the year 2010. The foreign born commonly represent 10 % of the work force in Western European countries. Proportions in a number of countries in Africa, Asia and the Americas are today similar or higher and some countries in the Gulf rely on foreign workers for 50 to even 90 % of their work forces.

Due to economic, demographic and technological changes, increasing numbers of jobs in industrialized economies cannot be filled by native-born workers. Ageing of native work forces combined with declining populations is an important factor. Latvia and Lithuania

have already seen reductions of population by nearly 10 % since 1989 – including working age adults. The native Russian work force is currently declining by some 750,000 workers per year, the consequence of more people reaching retirement age than young people entering the labour market. Fertility rates in Hungary, Italy, Spain, Russia, the Ukraine and elsewhere are well below replacement.³

The current projection for the European Union region is that while today the average social security dependency is 2 retired persons for seven economically active, the ratio will rise to 4 per 7 by 2050: meaning either twice the contributions per working person or halving the income for retirees.

While migration is not a silver bullet solution to these challenges, it is certainly one of the necessary responses.

Challenges of Globalization

Growing economic interdependence of states is a widely acknowledged component of globalization. Regarding the impact on migration, an ILO study said, *'The evidence points to a likely worsening of migration pressures in many parts of the world... Processes integral to globalization have intensified the disruptive effects of modernization and capitalist development... Many developing countries face serious social and economic dislocation associated with persistent poverty, growing unemployment, loss of traditional trading patterns, and what has been termed a 'growing crisis of economic security' (Stalker 2000).*

Accelerated trade is replacing or undercutting domestic industrial and agricultural production with cheap imports, but at the expense of many jobs in those sectors, in numerous developing countries. Meanwhile, data indicates that job creation by private sector in many countries affected by Structural Adjustment Programs has not matched the numbers rendered unemployed by downsizing governments.

As the ILO Director General Juan Somavia puts it, *if you look at globalization from the point of view of peoples' concerns, its single biggest failure is its inability to create jobs where people live.* In sum, migration pressures on the 'supply side' are increasing as possibilities for employment and economic survival at home disappear.

On the other side, demand for migrant labour is anything but declining. Rather, demographic trends and ageing work forces in many industrialized countries mean that immigration has become an increasingly important option to address changing labour force composition and needs and future economic and social security performance.

Growing competition for highly educated specialists in expanding service sectors has resulted in a significant rise in skilled labour migration. Simultaneously, needs around the world to fill the so-called '3-D jobs' (dirty, dangerous and degrading) and thus maintain economic competitiveness through low labour costs produces a continuous demand for cheap and low-skilled migrant labour in many countries.

Stakes High for Future Cohesion, Economic Viability and Social Welfare

To determine how important migration may be, ILO conducted a future simulation for Western Europe using its methodology to predict performance of social security systems, a method proven accurate over the previous ten years. The findings? If current trends re-

³ For example, the UN Population Division World Population Report shows fertility rates in Spain at 1.29 in 2000–2005 and averaging slightly higher at 1.43 over the period 2005–2010.

main the same regarding population aging and decline, female participation in the work force, retirement age, low immigration, and modest advances in productivity, the standard of living in Western Europe measured by per capita income of gross domestic product will be 78 % of what it is today, 22 % lower (ILO 2004a: 37–38).

While migration is not the ‘silver bullet’ solution alone, it is clearly one important element among several macro-policy responses required to achieve a more positive outcome than this simulation indicates.

Migration will have major influence on economic performance, productivity and future well-being in Europe, as well as in Asia, North America and in the CIS region.

Today, migrant labour in both developed and developing countries largely fills ‘three-D’ jobs: Efforts to fill 3-D jobs and to acquire economic competitiveness at low cost produce a continuous demand for cheap and low-skilled migrant labour in numerous sectors of national economies. These sectors commonly include agriculture and food processing, construction, cleaning and maintenance, hotel and restaurant services, labour intensive assembly and manufacturing, the sex industry and others. In fact, immigrant labour has long been utilized in industrialized countries as a low cost means to sustain economic enterprises and sometimes, entire sectors of economic activity that are only marginally competitive and would not survive without cheap foreign labour.

Small and medium size companies and labour-intensive economic sectors do not have the option of relocating operations abroad. Responses include downgrading of manufacturing processes, deregulation, and flexibilization of employment, with increased emphasis on cost-cutting measures and subcontracting (Lean Lim 1998: 277). In a number of countries, these measures are expanding the number of jobs at the bottom of the employment scale. These jobs are simply not filled by national workers. Workers may not be available because of work force aging and numerical decline – the case in a growing number of European countries and the Russian Federation. Also, unemployed or otherwise available national workers are simply not willing to take such jobs, for reasons of low pay, degrading and dangerous conditions, and/or low status in those jobs and sectors.

The resulting demand for migrant workers provides a significant impetus to labour flows and facilitates the incorporation of undocumented migrants (Escobar Latapi 1997: 4). ILO research in Southern European countries demonstrates the extent to which ‘the migrants take jobs that the locals refuse. It is simply a matter of substitution’ (Reyneri 2001). One study noted, ‘We can conclude that migrants are in competition only with marginal sections of the national labour force ... when they are not sufficiently sustained by welfare provisions, in specific sectors, and/or in the less-developed areas inside these countries’ (*Ibid.*).

For the less qualified jobs, employers demand workers who will not exercise pressures on the salary structures. Given that, at least initially, immigrant workers will not challenge the relation between salary and the social status attached to specific occupations, contracting migrant workers avoids the economic risks – particularly structural inflation – that national workers induce when they demand salary increases.

ILO has estimated that, globally, some ten to twenty percent of international migrant workers are in irregular situations, without legal authorization or undocumented. An on-line database on irregular migration in the European Union provides detailed estimates indicating that migrants in irregular situations number between 2.8 and 6 million, giving a range of 11 % to 23 % of total stocks. Migrants in irregular situations are even

more vulnerable to exploitation and abuse. However, the presence of migrants in irregular situations appears to have been tolerated by authorities in certain circumstances in some countries. This coincides with the fact that the absence of legal recognition heightens the exploitability and lowers the costs of migrant labour, in some cases allowing marginally competitive economic activity to remain in business.

(Mis)treatment of Migrants

The corresponding treatment of migrant workers clearly contradicts internationally agreed human rights principles and specific international legal standards.

Treatment of migrants in general and migrant workers in particular is commonly characterized by abuse and violations of norms, both national where they apply to migrants, and international standards. As noted in the Conclusions on Migrant Workers of the 2004 International Labour Conference:

Despite the positive experiences of migrant workers, a significant number face undue hardships and abuse in the form of low wages, poor working conditions, virtual absence of social protection, denial of freedom of association and workers' rights, discrimination and xenophobia, as well as social exclusion. Gaps in working conditions, wages and treatment exist among migrant workers and between migrant and national workers. In a significant number of cases unemployment rates, job security and wages differ between regular migrant workers and national workers.

The pressures of higher unemployment rates among immigrants and ethnic minorities make them less susceptible to unionisation, especially in sectors of precarious employment with strong threats of dismissal for either organizing or simply complaining about absences of occupation safety and health protections and 'decent work' conditions. As the International Trade Union Confederation (ITUC) highlights, organizing migrants and immigrants into unions or organizations to defend their interests and rights is often extremely difficult as it is easily intimidated and disrupted by the threat or actual practice of dismissal and deportation (see, for example, Linard 1998).

Gender, Migration and Abuse

A word on the gender dimensions is warranted. Women now comprise half of the total migrant worker population; that is as workers themselves, not dependents. Differential opportunities for legitimate employment affect men and women differently. Demand for migrant workers in receiving countries is defined by the labour market segmentation in these countries: opportunities are available for precisely these low-skilled jobs considered suitable for women. The feminisation of international labour migration, together with the fact that most job opportunities for women migrants are in unregulated sectors (agriculture, domestic work, sex industry) and the existence of sex-disaggregated labour markets contribute to the increase of discriminative labour markets in countries of destination. Female migrants are thus marginalized even further, they are more often left with no option but irregular migration, and exposed to worst forms of abuse.

Discrimination

Equality of treatment and non-discrimination are fundamental premises for maintaining functional labour markets and viable labour relations. Equality of treatment and opportunity

are also essential to upholding social cohesion in societies characterized by increasing diversity of populations.

However, discrimination plays an important role in maintaining – and justifying – stratification and segmentation in the labour market. It contributes and mutually reinforces attitudes that relegate or constrain certain identifiable groups to certain roles and strata in the work force.

Repeated, reinforced discrimination leads to depression, apathy, resignation, and marginalization. When people – and groups – are consistently denied employment opportunities, and when they are also confined to ghettos, provided inferior education or training opportunities, perceive law enforcement as providing little protection, and face discrimination in other aspects of community life, the combination adds up to a powerful recipe for exclusion, the antithesis of inclusion that is the fundamental notion of integration.

Unequal starting points or disadvantages, together with discriminatory behaviour, are the key reasons why migrant and ethnic minority workers face greater obstacles than the majority population.⁴In contrast to individual acts of discrimination, societal discrimination consists of arbitrary barriers against the advancement of minorities; the whole ‘system’ disfavors individuals because they are members of a certain group.

Compounding the challenge of discrimination are underlying ideological precepts of the definitions and identities of most nation-states around the world. Historically, these identities have often been constructed around mono-racial, mono-cultural, monolingual, and sometimes mono-religious definitions of belonging in nation-States.

The reality is increasingly diverse, and will inevitably become more so. A pronounced shift of understanding national identities is required. Diversity needs to be legitimized to respect and preserve the essences of identities that comprise that diversity, including those historical national identities.

Whose Security?

The contradictions outlined above give rise to contradictions in the rhetoric and practice of States.

In a number of countries, migration is being simultaneously encouraged and combated. Distance between policy pronouncements and *de facto* arrangements reflects a major contemporary contradiction in States' practice. Despite the political rhetoric about illegal migration, some governments appear to tolerate irregular migration while they officially reinforce controls against ‘illegal’ migrant workers. The consequences are, on the one hand, a supply of cheap labour on their territories, while on the other hand, migrants are unable to organize in the workplace to defend their dignity and decent work conditions, and they are stigmatized and isolated from allies and support.

With too few options available for legal migration despite both strong demand for foreign workers and a high supply of willing migrants, irregular migration has become the only alternative. However, the placement of barriers between supply and demand establishes a lucrative ‘business’ opportunity for helping people arrange travel, obtain documents, cross borders and find jobs in destination countries despite border barriers.

⁴ Additional explanations for the high under- and unemployment of migrant and ethnic minority workers can be found in macro-economic developments, including the constant reduction of unskilled industrial manual labour. See Abella 1997: 9.

The flow of low-skilled migrants to more developed regions is channeled by clandestine means precisely because of the non-existence of legal migration categories that would allow for their legal entry in destination countries. Once they are in host countries, migrants remain confined to jobs in unstructured or informal sectors, in irregular work and under exploitative conditions of employment (Abella 2002). In contrast, ILO research underlines that legal labour migration channels contribute to both reducing trafficking in children and women and the smuggling of migrants.

Restrictions on freedom of movement combined with absence of enforcement of health and safety protections and inability to ensure payment of wages according to minimum standards all contribute to expanding a market for trafficked migrants who have no choice but to labour in conditions simply intolerable and unacceptable for legal employment. The absence of labour inspection, particularly in sectors such as agriculture, construction, domestic service, sex-work and others where migrants are concentrated, facilitates the space in which forced or compulsory labour can thrive.

At the level of domestic politics and national government administration, promoting an agenda of migration control has become a viable vehicle to capture political attention and budgetary resources. Pursued to the detriment of other considerations, that focus has subordinated fundamental humanitarian and human rights considerations as well as economic and developmental factors to secondary roles.

In a growing number of countries, migration management responsibilities have been shifted from labour ministries to interior or home affairs ministries, thus transforming contexts for policy elaboration and implementation from that of labour market regulation to that of policing and national security.

Despite the vast extent that migration is about work, this shift separates administration of an increasingly sizable portion of the work force from the institution of the State most directly concerned with labour market regulation, conditions of work, industrial relations, and social security.

Reference to social dialogue – consultation with social partners – is absent in many national as well as international migration policy initiatives. ‘Management’ of an increasingly large and important sector of the working class outside normative protections, outside social dialogue and outside labour market institutions contributes to accelerated deregulation of labour markets as well as to deterioration of relations between labour, employers and the State overall.

The policy dilemmas in the economic and administrative realm are reinforced in the political discourse and ideological frameworks advanced in host States regarding irregular migrants. The utility of their presence – in irregular and exploited situations – represents a challenge to normative and ideological values of most industrialized countries inasmuch as these persons are denied legal and social protection. A predominant response is banal association of irregular migration with crime, arms, drug trafficking and terrorism, and discussion of draconian measures to ‘combat illegal migration’. Social stigmatization and outright violence is encouraged by the language of illegality and by military terms – as if ‘illegal migrants’ were an enemy in warlike confrontation.

The terminology of *illegal migrant* or *illegal alien* explicitly associates migration with crime, as does placing immigration control in the same category as crime, arms and drug control. While the term ‘illegal migration’ is more ambiguous, the ease by which language of illegal migration is transposed to ‘illegal migrants’ and the manifest association of both

these terms with criminality make these terms vehicles to convey – indeed encourage – the antithesis of acceptance and respect. Language conveys values explicitly and implicitly. The generalized rise of hostility and violence against non-nationals – migrants, refugees, immigrants, even sometimes, foreign students and tourists – is not simply coincidental to the generalized use of these terms.

Legally and semantically, the term *illegal migrant* is an oxymoron – a contradiction – from any reading of human rights values. It contradicts the spirit, if not directly violates the letter, of the Universal Declaration of Human Rights, which clearly establishes in Article Six that every **person** has the right to recognition before the law, and in Article 7, that every person has the right to equality of treatment before the law.

Contradictions pitting an amalgam of restriction and control measures against a rights-based approach to regulating migration are further reflected in international political developments. The adoption and growing number of ratifications of two Protocols, one on Combating Trafficking in Persons, the other to suppress smuggling of migrants, of the International Convention Against Transnational Organized Crime puts dealing with migration in a context of crime suppression, prevention and punishment. Both of these protocols focus on suppression and prevention measures to confront two particular aspects of irregular migration (trafficking, smuggling). However, human rights protections are subordinate aspects, and essential only provide certain protection for victims of trafficking.

Security versus Rights?

A growing assault on the universality of international principles of human rights has evolved over the last decade; it is now particularly focused on migration and the treatment of non-nationals.

Newly articulated ideological and political arguments specifically challenge the applicability of human rights law and principles to migrants and other non-nationals. On the one hand, post-September 11 doctrines advance the notion that the extent and nature of threats to national and State security posed by ‘international terrorism’ justify – even require – restrictions on human, civil and judicial rights of migrants in Western democracies as well as elsewhere.

The criminalization of migrants and the securitization of States conveniently dehumanizes foreigners, removing the imperative of recognizing and protecting their human rights and precluding solidarity and equality of treatment. Doing so ensures that a significant portion of workforces remain in docile, unprotected and inferior status.

Arguing for securitization of States is also effective in mobilizing public support for repressive measures – impeding in particular access of foreign workers and their families to legal defence, social services and ability to organize to defend their interests and participation in host societies.

Relativizing Rights

Proposals relativizing human and labour rights have emerged in the arena of international migration. A ‘utilitarian consequentialist’ approach argues for an explicit trade-off of lowered application of rights and unequal treatment for non-national workers in exchange for increased opportunities for employment in potential host countries.⁵ In this approach,

⁵ An elaboration of this approach appears in Ruhs and Chang 2004.

rights are commodified as negotiable bundles that may be traded, sold or renounced in exchange for economic benefits in form of access to labour markets. This approach is explicitly based on the premise that certain bundles of rights can be forfeited or traded to 'earn' access in temporary and otherwise limited circumstances to employment in developed country labour markets. It also suggests that trade-offs can be negotiated with organizations representing native workers to address their economic and political concerns.

These arguments coincide with continuing calls and initiatives to determine 'minimum' or 'core' rights applying to migrants. Such initiatives have been articulated for in a draft resolution circulated (but not adopted) at the UN Commission on Human Rights in 1997, in proposals emanating from senior officials of IOM, from EU and Council of Europe forums, in academic circles, and proposals to revise ILO Conventions and in discussions around the Global Forum on Migration and Development. Proposals for delineation of 'minimum rights' appeared to have intensified with increased ratifications and entry into force of the 1990 International Convention on protection of migrants' rights. A clear risk in this approach is establishment of a set of guidelines or principles that are much more general, vague and unenforceable in contrast to the explicit standards and supervisory mechanisms of the ILO Conventions and 1990 International Convention on migrant workers.

A Rights-Based Approach

A rights-based approach to migration is placement of universal human rights norms defined by the relevant international instruments as central premises of national migration legislation, policy and practice founded on the rule of law. Application of these norms is conditioned by historical, economic, social and cultural factors.

The central notion of human rights is 'the implicit assertion that certain principles are true and valid for all peoples, in all societies, under all conditions of economic, political, ethnic and cultural life'. Human rights are *universal* – they apply everywhere; *indivisible* – in the sense that political and civil rights cannot be separated from social and cultural rights; and, *inalienable* – they cannot be denied to any human being. This is the basis of the concept of 'human rights for all' articulated in the Universal Declaration of Human Rights (UDHR), which codified in a single instrument, norms common to major religious and historical traditions worldwide.

A corollary notion is that universal principles of human rights implemented in the rule of law provide the foundation for governance – governance of nations, community relations and international migration. This notion reflects historical experience that social cohesion and social peace can only be sustained under conditions of democratic rule, which in turn requires the accountability, the credibility and the enforceability provided under rule of law.

While not a binding legal instrument in itself, the UDHR has subsequently been adopted or formally endorsed by nearly all the World's nation-States. It has acquired the legal status of customary international law – generally universally applicable as a legal norm.

Two major International Covenants elaborated the principles of the Universal Declaration into binding normative standards on political and civil rights, and economic, social and cultural rights in the 1960s.⁶ Specific conventions explicitly extending

⁶ International Covenant on Civil and Political Rights and International Covenant on Economic, Social and Cultural Rights.

the ‘universal’ rights to victims of racial discrimination, women, children, and migrants were elaborated over the three decades from 1960 to 1990: Convention for the Elimination of Racism and Racial Discrimination (CERD), Convention Against Torture (CAT), Convention for the Elimination of Discrimination Against Women (CEDAW), the Convention on the Rights of the Child (CRC), and the 1990 Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, (CMR).⁷ These seven instruments were characterized as the seven fundamental human rights instruments that define basic, universal human rights and ensure their explicit extension to vulnerable groups worldwide.⁸

Three fundamental notions characterize the protections in existing international law for migrant workers and members of their families:

- 1) Equality of treatment between regular migrant/immigrant workers and nationals in the realm of employment and work.
- 2) Core universal human rights apply to all migrants, regardless of status.
- 3) The broad array of international labour standards providing protection in treatment and conditions at work – safety, health, maximum hours, minimum remuneration, non-discrimination, freedom of association, maternity, *etc.* – apply to all workers.

International Labour Standards

Some principles and rights at work that derive from the ILO Constitution and that have been expressed in the eight ILO Conventions⁹ are deemed to be fundamental for the protection of human rights for all workers, including migrant workers, by the ILO and its member States. They concern freedom of association and the right to collective bargaining, freedom from forced labour and child labour and non-discrimination in employment and occupation. Moreover, following the adoption of the 1998 ILO Declaration on Fundamental Principles and Rights at Work, ‘all members, even if they have not ratified the Conventions in question, have an obligation arising from the very fact of their membership of the Organization, to respect and to promote and to realize in good faith and in accordance with the Constitution, the principles concerning the fundamental rights which are the subject of those Conventions’ (ILO, 1998: par. 2).

The International Labour Standards in the areas of occupational safety and health, conditions of work, protection of wages and labour inspection, employment policy, maternity protection, the regulation of private and public employment agencies, as well as those covering sectors employing a large number of migrant workers have been identified as equally important to the promotion of decent work of all migrant workers.

The ILO instruments that promote equality of treatment between migrant workers and nationals in the field of social security are also particularly relevant. ILO social security standards define personal scope of coverage irrespective of nationality, almost all contain similar clauses on equality of treatment between nationals and foreign workers in the host

⁷ Texts and status of ratifications of these conventions are available on the website of the Office of the UN High Commissioner for Human Rights, at URL: www.ohchr.org.

⁸ Noted in the Report of the (UN) Secretary General on the Status of the UN Convention on migrants rights for the 55th Session of the UN General Assembly. Doc. A/55/205. July 2000.

⁹ C87 Freedom of Association and Protection of the Right to Organize Convention (1948); C98 Right to Organise and Collective Bargaining Convention (1949); C29 Forced Labour Convention (1930); C105 Abolition of Forced Labour Convention (1957); C100 Equal Remuneration Convention (1951); C111 Discrimination (Employment and Occupation) Convention (1958); C138 Minimum Age Convention (1973); C182 Worst Forms of Child Labour Convention (1999).

country, and the majority also contains special non-discrimination clauses.¹⁰ The ILO also adopted several complementary standards that deal specifically with the protection of migrant workers' social security rights.¹¹

International jurisprudence has amply reinforced the application of *International Labour Standards* to policy and practice regarding employment dimensions of migration. Decisions and opinions of the ILO Committee of Experts on the Application of Conventions and Recommendations have repeatedly underscored the applicability to all migrant workers of International Labour Standards covering conditions at work, occupational safety and health, maximum hours of work, minimum remuneration, non-discrimination, freedom of association, collective bargaining, and maternity leave, among others. The ILO Committee on Freedom of Association supervising the core international conventions on freedom of association and collective bargaining has specifically ruled that all migrant workers regardless of status are entitled to protection and expression of basic association and representation rights.¹² The ILO Convention on Discrimination in Employment and Occupation (No. 111) of 1958 has been frequently referred to in upholding equality of treatment and non-discrimination for migrant workers and workers of immigrant origin; an example is cited below.

This applicability has also been explicitly upheld in an international court, the Inter-American Court of Human Rights in an Opinion issued in 2003. In its conclusions, 'The Court decides unanimously, that ... the migrant quality of a person cannot constitute justification to deprive him of the enjoyment and exercise of his human rights, among them those of labor character. A migrant, by taking up a work relation, acquires rights by being a worker, that must be recognized and guaranteed, independent of his regular or irregular situation in the State of employment. These rights are a consequence of the labor relationship'.¹³

Migrant Specific Instruments

The ILO Migration for Employment Convention of 1949 (No. 97) establishes equal treatment between nationals and regular migrants in areas such as recruitment procedures, living and working conditions, access to justice, tax and social security regulations. The ILO Migrant Workers (Supplementary Provisions) Convention of 1975 (No. 143) established norms to reduce exploitation and trafficking of migrants while insuring protections for irregular migrants, and to facilitate integration of regular migrants in host societies.

The content of ILO Conventions 97 and 143 formed the basis for drafting the 1990 International Convention on migrant workers, which expanded and extended recognition of economic, social, cultural and civil rights of migrant workers rights.¹⁴

¹⁰ Social Security (Minimum Standards) Convention No. 102 (1952); Employment Injury Benefits Convention No. 121 (1964); Invalidity, Old-Age and Survivors' Benefits Convention No. 128 (1967); Medical and Sickness Benefits Convention No. 130 (1969); Employment Promotion and Protection against Unemployment Convention No. 168 (1988); and Maternity Protection Convention No. 183 (2000).

¹¹ Equality of Treatment (Accident Compensation) Convention No. 19 (1925); Equality of Treatment (Social Security) Convention No. 118 (1962); Maintenance of Social Security Rights Convention No. 157 (1982).

¹² See Fifth Edition of the 'Digest of Decisions and Principles of the Freedom of Association Committee of the Governing Body of the ILO' (2006).

¹³ Corte Interamericana de Derechos Humanos: *Condición Jurídica y Derechos de los Migrantes Indocumentados*. Opinión Consultativa OC-18/03 de 17 de Septiembre de 2003, solicitada por los Estados Unidos de Mexico.

¹⁴ Texts and related information available respectively at URL: www.ilo.org/ilolex and www.unhchr.ch.

Together, the two ILO conventions on migration and the 1990 International Convention comprise an *international charter on migration* providing a broad normative framework covering treatment of migrants and inter-State cooperation on regulating migration.

Eight points describe the importance of these three Conventions:

1. They establish comprehensive 'values-based' definitions and legal bases for national policy and practice regarding non-national migrant workers and their family members. They thus serve as tools to encourage States to establish or improve national legislation in harmony with international standards.

2. They lay out a comprehensive agenda for national policy and for consultation and cooperation among States on labour migration policy formulation, exchange of information, providing information to migrants, orderly return and reintegration, *etc.*

3. The 1990 International Convention further establishes that migrant workers are more than labourers or economic entities; they are social entities with families and accordingly have rights. It reinforces the principles in ILO migrant worker Conventions on equality of treatment with nationals of states of employment in a number of legal, political, economic, social and cultural areas.

4. ILO Convention 143 and the 1990 Convention include provisions intended to prevent and eliminate exploitation of migrants, thus reinforcing the 'decent work' agenda defined by International Labour Standards, nearly all of which apply explicitly or implicitly to all migrant workers.

5. ILO Convention 143 and the 1990 Convention explicitly address unauthorized or clandestine movements of migrant workers, and call for resolving irregular or undocumented situations, in particular through international cooperation.

6. These Conventions resolve the lacuna of protection for non-national migrant workers and members of their families in irregular status and in informal work by providing norms for national legislation of receiving states and their own states of origin, including minimum protections for undocumented or unauthorized migrant workers.

7. While the three Conventions address migrant workers, implementation of their provisions would provide a significant measure of protection for other migrants in vulnerable situations, such as victims of trafficking.

8. The extensive, detailed and complementary text contained in these instruments provides specific normative language that can be incorporated directly into national legislation, reducing ambiguities in interpretation and implementation across diverse political, legal and cultural contexts.

84 different States have ratified one or more of these three complementary standards as of April 2010.¹⁵ 11 member States of the European Union have ratified one or both ILO conventions.¹⁶

In the CIS region, Armenia, Azerbaijan, Kirghiz Republic and Moldova have ratified one or more of these three instruments; Tajikistan is the first to have ratified all three. With 14 additional signatories to the UN Convention (signing is a preliminary step to ratification), it can be anticipated that more than 90 States will have adopted some level of international standards as the basis of national law and policy within the next couple

¹⁵ The ILO Migration for Employment Convention No. 97 of 1949 is ratified by 49 countries, the ILO Migrant Workers (Supplementary Provisions) Convention No. 143 of 1975 is ratified by 23 countries; and the 1990 International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families ratified by 45 countries and signed by 14 others. A number of States have ratified both of the ILO Conventions; several have ratified one or both ILO Conventions plus the 1990 International Convention.

¹⁶ Belgium, France, Germany, Italy, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, and the United Kingdom.

of years. This is a high proportion of the 120 to 130 countries for which migration is an important feature, whether as origin, destination and/or transit countries.

Entry into force in 2003 of the 1990 Convention allowed it to be cited as an authoritative standard, and thus it is today exercising persuasive power over non-party States as well, even though they have not agreed to be bound by its standards. While most States Party to this Convention are primarily countries of origin of migrants, several ratifying States are destination countries (Argentina, Chile, Libya) and others such as Mexico, Nigeria and Senegal have large migrant and immigrant populations on their territories, meaning substantial responsibilities for domestic implementation.

Other States have utilized provisions in the 1990 Convention as a guide to elaborating national migration laws. Recent legal studies have concluded that existing national law in Belgium, Portugal, Spain and other countries is almost entirely in conformity with the main provisions of the 1990 Convention, meaning few legal hurdles to ratification (Foblets, Vanheule, and Loones 2003).

Nonetheless, the slow progress in ratifications of the 1990 International Convention on migrants' rights and of the ILO Conventions in the last decade symbolize a broader political resistance to recognition of application of human rights standards to migrants, particularly undocumented migrants.

Rights and social protection carry costs, an implication which confronts the logic of globalized economic competition. Opposition to wider ratification of this Convention reflects pressures to restrict rights and corresponding labour costs of a now internationalised reserve army of labour in order to ensure that it remains cheap, docile, temporary and easily removable when not needed.

However, the absence of protection of human rights and the denial of social protection for a part of society carries enormous costs for economic progress and social cohesion for societies as a whole – whether individual nation states or wider in the context of wider international relations today.

Elements for a Policy Agenda

Governance of phenomena that affect economic performance, industrial relations and social cohesion requires a foundation in the rule of law to ensure credibility, accountability and enforceability. Nonetheless, international legal standards provide only a basic grounding for policy and practical measures necessary both to protect migrants and regulate migration.

As the ILO puts it, 'A rights-based international regime for managing migration rests on a framework of principles of good governance developed and implemented by the international community that are acceptable to all and can serve as the basis for cooperative multilateral action. Existing international Conventions defining the rights of migrant workers provide many of the needed principles, but a sound framework would have to include principles on how to organize more orderly forms of migration that benefit all' (Executive Summary: ILO 2004a: Report VI).

Regulation is required to manage capital-labour relations in general and specific features such as labour migration. Market forces alone do not and cannot provide adequate, workable regulation of what is by definition a complex, international phenomenon highly subject to exploitation and conflict.

International dialogue on migration has increasingly focused in recent years in identifying common approaches among States in regulating what is by definition a phenomena requiring international cooperation. Nearly two decades ago, delegates of some 160 countries agreed upon a comprehensive common agenda in the chapter on migration of the Plan of Action adopted by the 1994 International Conference on Population and Development (ICPD) in Cairo. More recently, regional migration dialogues, the Berne Initiative's International Agenda for Migration Management (IAMM), and the Global Commission on International Migration¹⁷ continued elaborating common approaches.

A vital contribution was the adoption of Conclusions and a *Plan of Action on migrant workers* at the 2004 International Labour Conference in Geneva (ILO 2004b). Those Conclusions outline a comprehensive approach to regulating labour migration from a rights based approach in the context of labour market and employment considerations. Especially significant is the fact that they were adopted unanimously by ministerial level government representatives together with the leadership of trade union and employer federations from 177 ILO member countries. Equally important is the existence of a normative system, institutional structure, organizational competence, and constituent engagement in ILO behind this Plan of Action to see to its effective implementation. Following this Plan of Action, ILO subsequently elaborated a comprehensive Multilateral policy Framework for Labour Migration from a rights' based approach that takes into account labour market concerns and sovereignty of States (ILO 2006).

Elaboration of an explicit national migration policy and/or plan of action is a highly useful and increasingly common step by governments to articulate a deliberate approach to migration governance. In Central Asia, the Kirghiz Republic has developed five-year plans on Employment and Migration, and Kazakhstan has established a formal national migration policy following extensive internal and international consultations; it is preparing comprehensive labour migration legislation.

As described in the ILO Multilateral Framework on labour migration and other models, essential elements for a migration policy agenda include:

1) A standards-based foundation for comprehensive national migration policies and practices.

Migration policy and practice can only be viable and effective when they are based on a firm foundation of legal norms, and thus operate under the rule of law.

As noted above, the three instruments comprising an *international charter on migration* provide the normative framework and specific model legislative language required for national law, in turn the basis for national policy. The point of establishing legal rights and legislative policy standards is to ensure social legitimacy and accountability, only guaranteed by a foundation in the rule of law.

2) An informed and transparent migration policy and administration.

Immigration practice must respond to measured, legitimate needs, taking into account domestic labour concerns as well. Such a system must rely on regular *labour market assessments* to identify and respond to current and emerging needs for workers, high and low skilled. Policy and practice will need to address such areas as awareness raising, supervision of recruitment, labour administration, training of public service and law enforcement officials, recognition of educational equivalencies, provision of social and

¹⁷ See final report of the GCIM at URL: www.gcim.org/en/finalreport.html.

health services, labour inspection, rights restoration and recovery for victims of trafficking, and other areas.

3) Institutional mechanisms for dialogue, consultation and cooperation.

Migration policy can only be credible, viable and sustainable to the extent it takes into account the interests, concerns and experience of the most-directly affected stakeholders. Key stakeholders are the social partners: the employers and worker organizations. Labour ministries need to have a key role. Consultation and policy-making must also take into account the numerous other concerned ministries and agencies within government as well as civil society bodies and certainly migrants themselves.

4) Enforcement of minimum national employment conditions norms in all sectors of activity.

Preventing exploitation of migrants, criminalizing abuse of persons that facilitates trafficking, and discouraging irregular employment requires enforcement of clear national minimum standards for protection of workers, national and migrant, in employment. ILO Conventions on occupational safety and health, against forced labour, and on discrimination provide minimum international norms for national legislation. A necessary complement is *monitoring and inspection* in such areas as agriculture, construction, domestic work, the sex industry and other sectors of 'irregular' employment, to prevent exploitation, to detect forced labour, and to ensure minimal *decent work* conditions for all.

5) Gender sensitive migration measures.

The feminization of migration and the predominance of abuse of women migrants require recognizing gender equality as integral to the process of policy-making, planning and programme delivery at all levels.

6) A Plan of Action against discrimination and xenophobia.

Discrimination and xenophobic hostility against migrants are serious challenges to governance and social cohesion in every region of the world. ILO research found pervasive discrimination against regular immigrant workers – unlawful discrimination – across Western Europe (see Cediey and Feroni 2007; Attström 2008). The 2001 World Conference in Durban articulated a major component of national policy on migration by defining a comprehensive and viable model plan of action specifically to combat discrimination and xenophobia against migrants at national, regional and global levels, based on common experience from different regions.¹⁸ A specific national plan of action on racism and xenophobia is essential today to achieving and sustaining social cohesion.

7) Linking migration and development in policy and practice.

Migration has long been and continues to generate significant contributions to both development and social progress and welfare in home and host countries alike. However, such contributions will certainly be enhanced by a broad array of policy measures ranging from reducing costs and constraints on transfer of migrant remittances to providing accessible mechanisms for regular migration to validating qualifications of migrants as well as recognition of the employment and economic contributions all labour migrants make.

8) International cooperation.

¹⁸ Main elements were established in the *Declaration and Program of Action* adopted at the World Conference Against Racism and Xenophobia (WCAR) in Durban in 2001, which included 40 paragraphs on treatment of migrant workers, refugees and other non-nationals. The full text is available at URL: www.unhcr.ch/pdf/Durban.pdf. See also www.unhcr.ch/html/racism/00-migra.html for related documents and links.

Formalized mechanisms of regular dialogue and cooperation among States – including participation of concerned stakeholders – are essential in all regions. Of particular note are expanding legal and operational regimes for freer circulation of labour/persons across regional economic integration initiatives in several world regions, including the Andean Community and Mercosur in South America and the East Africa Community and the Economic Community of West African States (ECOWAS), the European Union, as well as the Commonwealth of Independent States.

A Shared Responsibility

Promotion of the rule of law, good governance and social cohesion are shared responsibilities among all stakeholders: government, employers, trade unions, civil society and migrants themselves. Social partners – in concert with migrant associations – have key moral and political leadership roles to play in mobilizing societies and governments to ensure implementation of a rights-based framework for international migration.

Key stakeholders are the social partners: the employers and businesses that provide employment and the trade unions – worker organizations – representing the interests of workers, both migrants and nationals.

A shift of major importance is the evolution of trade union attitudes from ignoring migration – or expressing hostility towards irregular migrants – to taking stands of solidarity with migrant workers regardless of status.¹⁹ Major policy shifts followed by extensive organizing drives among migrant workers have taken place over the last decade by mainstream trade unions and national confederations across Europe as well as in Africa, the Americas and Asia. National labour confederations and/or sectoral unions in Argentina, Belgium, Canada, France, Germany, Ireland, Italy, Korea, Mauritius, Mexico, the Netherlands, Portugal, Spain, Sweden, South Africa, the UK and the USA – among others – have full-time national staff for migrant worker organizing and anti-discrimination issues; all are active in policy advocacy for improved protection of rights and decent work conditions for migrants. The main global and regional trade union confederations have issued calls for ratification of the 1990 Convention and the ILO conventions on migrant workers.²⁰

Civil society organizations (CSOs) have been active in promoting protection of rights of migrants as well as good governance in many countries. Most CSOs concerned with migration issues are nationally based and focused; regional formations have emerged in Asia, Central America and Europe. In the last five years major human rights monitoring organizations – International Federation of Human Rights, Amnesty International, Human Rights Watch – have given substantial attention to migrants rights.²¹

Act of the Crisis

The global financial crisis has evolved into a deepening global employment crisis. This employment crisis also has a huge impact on labour mobility and labour migration, both in itself and in perceptions of migration and migrants. This impact and these perceptions only intensify the pressures on and challenges for ‘getting it right’ on migration policy.

¹⁹ For a global overview of trade union views and activities, see ILO 2002.

²⁰ See website of International Trade Union Confederation (ITUC) at URL: www.ituc-csi.org. Some 200 articles and items posted relate to trade unions and migrant workers; search by key word *migrants*.

²¹ For ample information on evolving civil society activity worldwide on migrants' rights and around International Migrants Day, see December 18 network website at URL: www.december18.net.

It is often said that migrants – like other ethnic minority workers – are the last hired and first fired. This is certainly the case today as a consequence of the global economic and financial crisis.

The global crisis has led to a serious slowdown in world economic activity. Nowhere has this been more evident to many people than in their jobs and their earnings. Enterprises in many countries including the Russian Federation are not hiring new staff; major lay-offs continue unabated. Some companies are resorting to short-time arrangements, such as reduced hours and pay for personnel remaining on the payroll or putting workers on part-time employment or unpaid leave. A review of the impact and recovery from previous economic crises suggests that return to pre-crisis employment levels may take four to five years.

According to the 2009 Global Employment Trends report (GET) issued by the ILO, a dramatic increase has already taken place in the number of people sent into the ranks of the unemployed, becoming working poor or being put in vulnerable employment. Depending on the effectiveness of recovery efforts, the GET report estimates an increase in global unemployment in 2009 compared to 2007 by 50 million.

Migrants tend to be among the workers most hit by economic downturns for several reasons. Migrant labour is often used as a cyclical buffer, like other macroeconomic policies aimed at maximizing growth and minimizing unemployment. For migrants, this means they are often the last to be hired and the first to be fired and their employment relationships are frequently non-standard, and in poorly regulated sectors or activities.

In times of economic insecurity migrants easily become scapegoats; xenophobic sentiments and discrimination against migrant workers rise. This alone presents one of the most formidable challenges for social peace and cohesion, and therefore for governance, in hard times.

Data compiled by ILO confirmed the impact on migrant workers:

Migrants and persons of foreign origin are hard hit, they are disproportionately among those already laid off or rendered unemployed. Those migrants remaining employed are often affected by reductions in pay, working time, and worsening working conditions.

Migrant workers have less access to social safety net support. This is especially true for migrants in irregular situations.

However, many migrant workers are not returning home, unless forcibly expelled. This is the case even when they are being offered financial incentives to voluntarily depart. Simply put, conditions at home are even worse. While there may be opportunities for some kind of work in host countries, there are simply none at all at home. The return of migrant workers from Europe or the USA to home countries is a rare exception, and reflects the fact that, atypically, situations in their home countries may be significantly less deteriorated than generally.

Migrant workers are thus compelled to take whatever work they can find. They may accept even more substandard pay and abusive conditions than before. This fact presents an immediate policy challenges for governance and for stabilization of labour markets and working conditions.

Scapegoating of migrants and xenophobic violence against foreigners are on the rise throughout the world. These are expressed in increased murders and lynchings of migrants in some countries, in generalized expressions of anti-foreigner sentiment, in hostile political discourse, and in calls for exclusion of migrants from access to labour markets and emergency social protection benefits, and more generally in incidents of conflict between foreigners and 'nationals'.

Many countries reduced quotas or intake of foreign workers; some embarked on deliberate policies of exclusion and expulsion of migrant workers.

Migrant remittances home declined in 2008 and 2009.

The further deteriorated situations in home countries make whatever remittances migrants can send an even more crucial lifeline for their families and local communities.

What employment opportunities existed earlier for those remaining at home are also evaporating, meaning even fewer options for persons coming back from abroad. This also makes the return of migrant workers potentially a greater threat to labour market stability and ultimately, social stability at home.

However, it is incontestable that, given long term labour market, demographic and technological trends, immigrant labour and skills will be as essential for recovery from the crisis as they already became to productivity and economic progress – in Russia, Kazakhstan as well as elsewhere – in recent years.

Call for Action

It is clear that, given enormous economic and political interest in inaction, change in policy will only come about when significant political and social pressure is generated for adoption of a 'rights-based approach' and deliberate regulatory policy by governments.

Common approaches, strategies, coordination, and the ability to mobilize human resources are needed to defend rights and dignity of migrants – non-nationals – and to advance proper and sustainable regulation of migration in the context of today's globalized world. An agenda of 'next steps' includes:

Establishing a Rights-Based Policy Approach

1. Ratification and effective implementation by CIS countries of ILO Conventions 97 and 143 on Migrant Workers, ILO Convention 111 on Discrimination, and the 1990 International Convention on protection of rights of migrant workers.

2. Establishing – where they do not exist – national consultative mechanisms on labor migration among social partners (representative national employer and worker organizations) and relevant government entities.

3. Elaboration of a national migration policy framework and strategy for implementation .

4. Expanding and consolidating CIS legislation and policy support on labor mobility across the region.

5. Encouraging cooperation by government with employer organizations and trade unions to elaborate and implement policy as well as ensuring adoption of relevant national legislation.

6. Support should also extend to organizing and affiliation of migrant workers.

7. Explicitly avoiding scapegoating of migrants, particularly by preventing forced expulsions or repatriations of migrant workers that implicitly or explicitly target migrant workers as responsible for jobs loss and rising unemployment.

8. Emphatically repressing racist violence and xenophobia against foreigners, and prosecuting perpetrators of violent acts.

9. Increasing capacity of labour inspection to monitor sectors and workplaces where migrant workers are concentrated, to shore up decent treatment in the face of pressures to increase exploitation.

Discrimination

10. Particular attention needs to be focused on supporting and advocating the implementation of an effective agenda to prevent discrimination and ensure social cohesion. An action agenda was mandated in the Declaration and Program of Action of the Durban World Conference against Racism and Xenophobia.

Core elements include:

- an explicit legal foundation based on relevant international standards;
- outlawing racist and xenophobic discrimination, behaviour and action;
- administrative measures to ensure full implementation of legislation and accountability for all government officials;
- consolidation of independent national human rights/anti-discrimination institutions with powers to address discrimination against non-citizens;
- teaching and speaking respect for diversity and multicultural interaction;
- emphasizing positive images of diversity and migration in communications media.

Conclusion

Today, in the context of globalization accompanied by a rise in inequalities in distribution of wealth and exclusion of entire populations from economic and social well-being, greater emphasis is needed on advancing rights-based approaches. These are fundamental to ensuring the primacy of the rule of law, extension and consolidation of democracy, and greater equity in the distribution of material means for well-being and social cohesion.

Migration is a central arena for expression of values in law, policy and practice. Advancing a rights-based framework for protection of migrants and regulation of migration is thus imperative. This requires advocacy and action in promotion of human rights law, international labour standards, humanitarian principles and respect for diversity. These are the guarantors of democracy and social peace.

A primary step is obtaining States' adherence to relevant international human rights standards, particularly the two ILO migrant worker Conventions and the 1990 International Convention on migrants rights. Complementary steps are to address labour market needs, ensure *decent work* opportunities for all, combat discrimination and promote integration.

Promotion of the rule of law and respect for diversity are shared responsibilities among all stakeholders: government, employers, trade unions, civil society and migrants themselves. Social partners – in concert with migrant associations – have key moral and political leadership roles to play in mobilizing societies and governments to ensure implementation of a rights-based framework for international migration.

Progress is encouraging, but the challenges remain huge.

References

Abella, M. I. 1997. *Sending Workers Abroad: A Manual for Low- and Middle-income Countries*. Geneva: ILO-IOM.

Abella, M. I. 2002. Mondialisation, marchés du travail et mobilité. *Migrations et avenir* 14(79): 181–194.

Attström, K. 2008. *Discrimination in Employment against Second-generation Swedes of Immigrant Origin in Access to Employment*. International Migration Papers 86E. Geneva: International Labour Office.

Cediey, E., and Foroni, F. 2007. *Discrimination in Access to Employment on Grounds of Origin in France: A National Survey of Discrimination Based on the Testing Methodology of the ILO*. International Migration Papers 85E. Geneva: International Labour Office.

CLANDESTINO Undocumented Migration: Counting the Uncountable. Data and Trends across Europe. Research project funded by the European Commission, DG RTD, FP6. 2007–2009. URL: <http://clandestino.eliamep.gr> (country reports and research briefs), <http://irregular-migration.hwwi.net> (database).

Escobar Latapí, A. 1997. *Emigration Dynamics in Mexico, Central America and the Caribbean*. 12th IOM Seminar on Migration, Managing International Migration in Developing Countries. Geneva.

Foblets, M.-Cl., Vanheule, D., and Loones, S. 2003. *De Internationale VN – Conventie van 1990, Rechtsevolgen van een Belgische ratificatie; een verkennende studie*. K. U. Leuven and University of Antwerp. In Dutch. URL: www.december18.net/web/general/d-VNconventiestudie.PDF

ILO. 2002. Migrant Workers Labour Education 2002/4. No. 129. URL: www.ilo.org/actrav.

ILO. 2004a. *Towards a Fair Deal for Migrant Workers in the Global Economy*. International Labour Conference 92nd Session June 2004. Report VI. Geneva: ILO. URL: <http://www.ilo.org/public/english/standards/reln/ilc/ilc92/pdf/rep-vi.pdf>

ILO. 2004b. *Resolution and Conclusions on Migrant Workers*. International Labour Conference. 92nd Session. Geneva: ILO. URL: www.ilo.org/migrant/download/ilcmig_res-eng.pdf

ILO. 2006. *Multi-lateral Policy Framework for Labour Migration*. Geneva: ILO. URL: www.ilo.org/migrant/download/tmmflm-en.pdf

ILO. 2010. *A Rights-Based Approach to Labour Migration*. Geneva: International Labour Office.

Lean Lim, L. 1998. *Growing Economic Interdependence and its Implications for International Migration in United Nations: Population Distribution and Migration*. New York.

Linard, A. 1998. *Migration and Globalization – the New Slaves*. Brussels: ICFTU.

Reyneri, E. 2001. *Migrants' Involvement in Irregular Employment in the Mediterranean Countries of the European Union*. Geneva: ILO.

Ruhs, M., and Chang, H.-J. 2004. The Ethics of Labour Immigration Policy. *International Organization* 58: 69–102.

Stalker, P. 2000. *Workers without Frontiers – the Impact of Globalization on International Migration*. Geneva: ILO.

Illegal Immigration as A Structural Factor of Global Development

Ivan A. Aleshkovski

The present article examines the theoretical and methodological issues in the study of illegal migration and international cooperation aimed at preventing illegal migration. When analyzing the issues of illegal immigration, the theoretical and methodological justification becomes of a special importance. At present, the task of systematization and standardization of terminology with respect to illegal migration analysis seems to be especially relevant, without which it is impossible to start formalizing data on the global scale. The present study reveals possibilities for the investigation of the illegal migration issues.

Keywords: *international migration, illegal migration, migration policy, structure of illegal migration, undocumented/unauthorized entrance, legal entry with false paper, illegal (informal) employment.*

The growing scale of illegal immigration is one of the significant global migration trends. As it was noticed in the Resolution of the 59th Session of International Labor Organization (ILO) ‘despite the efforts of main receiving countries, the number of illegal migrants is still significant. And if we consider this question on the global scale we will find that such migration is more likely a rule than an exception’ (ILO 1974). Still nowadays, despite the vigorous efforts of major receiving countries to stand against illegal immigration, the estimated numbers of illegal immigrants continue to increase there. As it was noticed in the Resolution of the 92nd Session of the ILO in 2004

the number of migrants in an irregular situation is rising, fuelled by the growth of informal forms of employment, shortages of workers for dirty, demeaning and dangerous jobs (‘3D-jobs’) and lack of opportunities for regular labour migration. The absence of formal management for migration and national policies in some countries contributes to the increasing number of irregular migrants (ILO 2004).

The reasons root in the growing economic and demographic gap between main sending and receiving countries and demand for cheaper labor force against restricted migration management and narrow channels for legal entry and employment of foreign workers in the developed countries. As a result, in the countries with relatively liberal immigration policy, which remain essentially open to immigration (such as Australia, Canada, New Zealand, the USA, *etc.*), illegal immigration is an alternative for those migrants who do not meet the required criteria, and for those who would have to wait longer than they wish in order to obtain an immigrant visa, as well as for those for whom the unauthorized immigration is less expensive. At the same time in the countries with a strict immigration

policy (such as the European Union) illegal migration for the majority of migrants is the only way to implement their spatial mobility. All these things lead to the fact that for many countries illegal migration has become typical.

It is quite difficult to estimate illegal immigration. Different indirect methods can give us just approximate estimations that may greatly vary. For instance, according to the UN experts, every year from 2 to 4.5 million people illegally cross the borders of countries. Moreover, the illegal migrants' number grows with people who arrive to the country lawfully, but overstayed there, thus violating the terms of residence. According to different estimates, today from 10 to 15 per cent of all international migrants (from 20 to 35 million people) stay in countries illegally. Now the number of illegal migrants is about 10–15 million in the USA, from 1.9 to 3.8 million in the European Union, from 3.0 to 5.0 million in Russia, from 0.3 to 1 million in Japan, from 1.0 to 3.0 million in the Middle East, from 1.0 to 3.0 million in South America. We have to admit that illegal immigration affects not only a country's development. All the countries with a higher cost-of-living index than their nearest neighbors may become a victim of illegal immigration. For example, Mexico, the biggest supplier of illegal immigrants in the world, is at the same time a receiving society for about a million illegal immigrants from countries of South America (GCIM 2005: 32–34; ILO 2004: 11–12; Papademetriou 2005; Morehouse and Blomfield 2011: 6).

Over a long period of time, the receiving societies were rather tolerant to migrants including the illegal workers. However, in recent years social, economic and geopolitical circumstances seriously damaged the tolerance in terms of growing negative public opinion on immigration.

In the late 20th and early 21st centuries, the issues of illegal immigration have become not only urgent but also directly related with the standards of living of indigenous populations, increasing crime rate, international terrorism and other negative points. The public concerns, in their turn, have increased interest in the problems of illegal immigration on the part of public and political figures, non-governmental organizations, scientific community, international organizations (UN, IOM, ILO, the European Union, Council of Europe, *etc.*). After the 9/11 tragedy in the USA, this became especially noticeable when the main topic of the socio-political discourse has become a matter of national security and fight against international terrorism, as well as the events of 'Arab Spring' of 2011, that have significantly aggravated the issues related to forced and illegal immigration to Europe.

Methodological Issues of Illegal Migration Studies

Before talking about contemporary trends and features of illegal immigration we should define who can be considered an illegal immigrant.

The complex character of studies of social phenomena of 'illegal migration' is caused by the lack of an established terminological apparatus. Thus, in the works of the leading Russian and foreign experts one can find not only different definitions of illegal immigration, but also different comprehension of the essence of the phenomenon itself.

To denote the migrants that enter the country irregularly or illegally, violating the established terms of residence or reside in a country without a residence permit, violating

other relevant immigration rules, and the appropriate type of migration in contemporary academic literature scholars use a number of terms and expressions: ‘undocumented’, ‘paperless’, ‘illegal’, ‘unauthorized’, ‘with an irregular status’, ‘irregular’, ‘clandestine’, ‘quasi-legal’ migration *etc.* At the same time, while some scholars consider these terms as interchangeable, others believe these concepts to be fundamentally different. There are nuances in the perception of the terms ‘illegal migration’, ‘clandestine migration’, ‘undocumented migration’, and ‘irregular migration’.

In foreign literature the term ‘illegal migration’ is dropping out of use and substituted by and large by the term ‘irregular migration’. The term ‘illegal immigration’ is mainly used when referring to the smuggling of migrants and people trafficking (see Ghosh 1998; Okolski 2000; Tapinos 2000; Krasinets, Kubishin, and Tyuryukanova 2000; Vorobyeva 2001; Vitkovskaya 2002; Iontsev 2002; GCIM 2005; Papademetriou 2005; Aleshkovski and Iontsev 2006; Jandl, Vogel, and Iglicka 2008; Morehouse and Blomfield 2011; IOM 2011).

In the 1990s, the discussion on the definition of illegal migration obtained in Russia not only scientific but also a wide political and social response. That reaction was caused by the creation of the Commonwealth of Independent States and by a particular attitude to the former Soviet citizens, hundreds thousand of whom moved to Russia after the disintegration of the USSR. Some of them have had an undefined status for many years.

One of the first international documents addressing the term ‘illegal immigration’, was Convention No. 143 on Migrant Workers adopted by the ILO Conference in 1975. This convention defines *clandestine or illegal migration* movements as those where migrants find themselves ‘during their journey, on arrival or during their period of residence and employment to conditions contravening relevant international multilateral or bilateral instruments or agreements, or national laws or regulations’. This definition emphasizes different aspects of illegal immigration: *entry, residence* in the host country and *employment*. The Convention also mentions that ‘considering that evidence of the existence of illicit and clandestine trafficking in labour calls for further standards specifically aimed at eliminating these abuses’ (ILO 1975).

The Programme of Actions of International Conference of Population and Development (Cairo, 1994) underlines that

undocumented or irregular migrants are people who do not fulfill the requirements established by the country of destination to enter, stay or exercise an economic activity. Given that the pressures for migration are growing in a number of developing countries, especially since their labor force continues to increase, undocumented or irregular migration is expected to rise (UN 1994).

In the *Glossary on Migration*, prepared for the International Organization for Migration, one finds the following definition:

Movement that takes place outside the regulatory norms of the sending, transit and receiving countries. There is no clear or universally accepted definition of *irregular migration*. From the perspective of destination countries it is illegal entry, stay or work in a country, meaning that the migrant does not have the necessary authorization or documents required under immigration regulations to enter, reside or work in a given country. From the perspective of the sending

country, the irregularity is for example seen in cases in which a person crosses an international boundary without a valid passport or travel document or does not fulfill the administrative requirements for leaving the country. There is, however, a tendency to restrict the use of the term 'illegal migration' to cases of smuggling of migrants and trafficking in persons (Perruchaud 2004: 34–35).

The 'Report of the Global Commission on International Migration' published in 2005 states that:

The term '*irregular migration*' is commonly used to describe a variety of different phenomena involving people who enter or remain in a country of which they are not a citizen in breach of national laws. These include migrants who enter or remain in a country without authorization, those who are smuggled or trafficked across an international border, unsuccessful asylum seekers who fail to observe a deportation order and people who circumvent immigration controls through the arrangement of bogus marriages. These different forms of irregular migration are often clustered together under the alternative headings of unauthorized, undocumented or illegal migration. The Commission is aware of the controversy surrounding the adequacy of these concepts, and concurs with the assertion that an individual person cannot be 'irregular' or 'illegal'. This report therefore refers to the people concerned as 'migrants with irregular status' (GCIM 2005: 32).

In the *Handbook on Migration Terminology* prepared in 2011 by the European Union and the International Organization for Migration the following definitions are presented (IOM 2011):

Undocumented migrant workers / migrant workers in an irregular situation – migrant workers or members of their families, who are not authorized to enter, to stay or to engage in employment in a State.

Undocumented alien – an alien who enters or stays in a country without the appropriate documentation. This includes, among others: one (a) who has no legal documentation to enter a country but manages to enter clandestinely, (b) who enters using fraudulent documentation, (c) who, after entering using legal documentation, has stayed beyond the time authorized or otherwise violated the terms of entry and remained without authorization.

Irregular migration (clandestine migration) – movement that takes place outside the regulatory norms of the sending, transit and receiving countries. There is no clear or universally accepted definition of irregular migration. From the perspective of destination countries it is illegal entry, stay or work in a country, meaning that the migrant does not have the necessary authorization or documents required under immigration regulations to enter, reside or work in a given country. From the perspective of the sending country, the irregularity is for example seen in cases in which a person crosses an international boundary without a valid passport or travel document or does not fulfil the administrative requirements for leaving the country. There is, however, a tendency to restrict the use of the term 'illegal migration' to cases of smuggling of migrants and trafficking in persons.

Irregular migrant (illegal/undocumented migrant or migrant in an irregular situation) – someone who, owing to illegal entry or the expiry of his or her visa, lacks legal status in a transit or host country. The term applies to migrants who infringe a country's admission rules and any other person not authorized to remain in the host country.

Thus, *irregular (illegal) migration* is the spatial population movements through the state borders dealing with the violation of rules of departure in the country of origin, rules of entry/residence in the destination country, or rules of transit through another country.

Illegal migration may appear within a country if it has restrictions for internal population movements without a special permission (*e.g.*, in Russia at the times of the USSR or in contemporary North Korea).

Illegal migrants are those who violate rules of entry, departure, residence or transit through a particular country.

There are two main types of illegal migration: *illegal emigration* and *illegal immigration*. Besides, in the last years we observe new forms of illegal transit migration dealing with smuggling of migrants and trafficking migrants.

Let us focus on the differences between two main types of illegal migration.

Illegal emigration is usually non-return and very often takes a form of forced migration in case of successful entry to the country, as illegal immigrants often apply for refugee status. In case of failure in getting refugee status many people from this group become illegal immigrants and sometimes may be deported to their native countries that may result in punishment for them.

Illegal immigration is usually a return migration related to illegal job placement.¹ In that case, migrants can cross the state border legally (as tourists, business migrants, or by invitation from friends and relatives), illegally (through poorly controlled boundaries) or unduly (using fake documents and transit visas), but in all cases with further illegal job placement.

Illegal employment of migrants is the employment without proper juridical registration according to the rules for foreigners in the receiving country.

Thus, significant characteristics for the illegal immigration are: 1) *illegal employment* – the main target of most of illegal immigrants regardless the way of crossing the border; 2) *temporariness of employment* – most of illegal migrants intend to come back to their native country.

We define three types of illegal immigration (see Fig. 1 and also Okolski 2000; Tapinos 2000; Papademetriou 2005; Jandl, Vogel, and Iglicka 2008):

1. *Undocumented/unauthorized entrance* – one of the main types of illegal migration (*e.g.*, in the USA this category accounts for about two-thirds of all illegal immigrants). These are people who enter another state clandestinely. Most of such entrants cross land borders, but sea routes are also used regularly and wherever inspection regimes are permeable, so are the air routes. In all cases, the entrant manages to avoid detection and hence, inspection. At the same time on many borders special channels for illegal migrants have been created by human smuggling organizations.

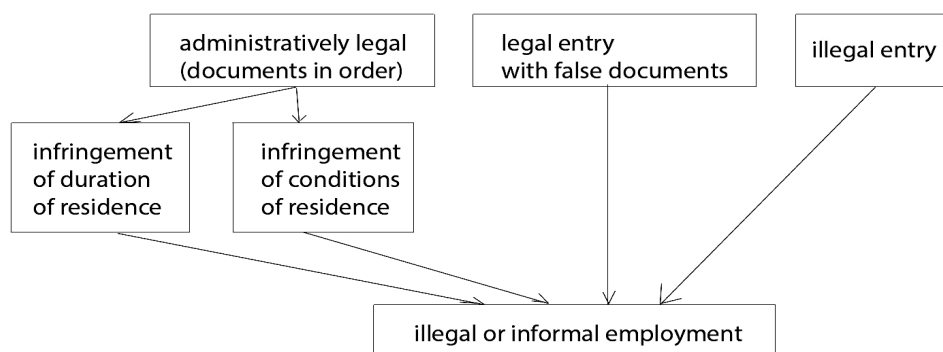
¹ Among illegal immigrants there are asylum-seekers, terrorists and other criminals, however, generally illegal migration is labor migration by nature.

One should distinguish between unassisted and assisted illegal border crossings. Unassisted illegal migrant is a person who plans and executes an illegal entry by himself, whereas an assisted illegal migrant turns to other people (or organizations) for help. Nowadays increasing proportions of clandestine immigrants are smuggled or trafficked. According to the ILO experts, about half of migrants when crossing the borders of a country become victims of human traffickers. Illegal immigrants often rely – voluntarily or forcedly – on the assistance of ‘migration brokers’, that is transnational criminal groups specializing in smuggling and trafficking migrants. Smuggling and trafficking migrants is a powerful international business with high profits and low risks. In fact, it is a specific element of informal migration infrastructure that opposes official international migration management institutions. According to Europol data, incomes of illegal immigration organizing networks are comparable to those of drug business.

2. *Legal entry with false paper (fraudulent documents)*. This type is the migrants who legally arrive to the destination country, but use fake documents for entry (fake passports or other persons' passports, fake or changed visas, fake invitations *etc.*). Here we also attribute fraudulent asylum claims and other documents necessary to claim for the refugee status.

3. *Illegal (informal) employment*. This type includes people who enter another state properly (*e.g.*, with tourist visas or by private invitations), but later they violate the rules of residence. It may be violation of terms and conditions of visa during their legal residence in the country of destination (*e.g.*, illegal job placement of students or tourists, changing the place of work despite the contract terms) and also the violation of the time of residence prescribed by visa or other documents (*e.g.*, foreign students ‘willfully’ exceed the period of legal stay and lap into irregular status; transit migrants with overdue visas working under international agreements and contracts that are run over their period of validity).

Fig. 1. Structure of illegal immigration



Economic and Political Aspects of Illegal Immigration

Illegal immigration is mostly an economic process by nature. It is not surprising that the majority of illegal immigrants are people looking for a job or for higher earnings than they have in their native country.

From the economic point of view, the illegal immigration is driven by aspiration for economic benefits on the part of four main participants of this process:

- *migrants*, who decide to choose the illegal way of movement and job placement;
- *employers*, who give job to illegal migrants;
- *sending states*;
- *receiving states*.

As to the *illegal immigrant*, the reasons for his or her illegal entry and job placement in the foreign labor market are concerned with the following factors:

- more opportunities for employment and higher salaries in the destination country in comparison with the country of emigration;
- no possibility to get a legal permission for entry and work in the desirable country of destination;
- possibility not to lose time and money to get residence permit and work permission;
- possibility to evade tax payments.

The immigrants coming for seasonal work in the informal sector (building, agriculture, *etc.*) are especially inclined to get no official registration of their stay.

As to an employer, the advantages of using illegal immigrants are the following:

- possibility to save money on salaries and social payments;
- the illegal migrants' disfranchised position allows the employer to break labor rules and set up his own job conditions, salary, working schedule *etc.*;
- the necessity to fill the vacancies (harmful and dangerous) that are not attractive for local population;
- disproportion of offer and demand for labor in the regional and sectoral markets;
- necessity to use more flexible schemes to hire employees;
- a strict system of registration and licensing of foreign employees.

Thus, immigrants working illegally are the cheapest and disfranchised working force that is a significant reason to hire such people in spite of increasing fines and sanctions (even imprisonment). Thus, one of the reports of the USA Population Council directly points: businessmen get more benefits using the illegal immigrants that live and work in terrible conditions and get the lowest salary. This fact explains why corporate business in the USA lobbies for simplification of immigration rules, up to totally open borders. For example, the government found out that 80 per cent of people gathering the harvest of onion in the state of Georgia were illegal immigrants. The Immigration and Naturalization Service tried to make its job and legalize these migrants or deport them, but the legislative instances of the state hampered the INS activity. The employers in agriculture, construction and low-paid sector claim that they must have a right to employ foreigners even if they are illegal (Buchanan 2004; UN 2002). According to the estimates, the developed countries' governments will face growing pressure on the part of businessmen who need new employees to maintain their competitiveness on the global market. Otherwise, under the conditions of globalization the developed countries with their ageing population and lack of young people will be hardly effective in competition with less developed economies on the global market.

Paradoxically, not only employers get benefits from using labor of irregular immigrants but the receiving state as well, because they can be considered as 'net taxpayers' (Linderdt 1992) who participate in taxation in most cases (indirect taxes rather than direct taxes) but have no access to social security benefits. The research of the American scholars confirm

that receiving states gain from illegal immigrants in terms of lower prices and dampened inflation, higher competitiveness of their products in the world market. So, 'in general illegal immigrants are not a burden for the treasury and they positively influence the receiving countries economy' (Tapinos 2000: 30).

Sending countries may also encourage illegal migration as it can positively affect their economy, especially in the short-run. Illegal migration contributes to the decrease of demographic pressure in the countries of origin and reduces the unemployment level. According to some estimates, the labor migration from Mexico to the USA reduces the annual increase of Mexican population from 1.5 % to 1.8 % (ILO 2004). Illegal migration also creates huge flows of remittances to the emigration countries. The volume of remittances sent home by international migrants are growing rapidly. While the precise figures are hard to obtain, the World Bank estimates that the annual value of formally transferred remittances in 2011 was about \$372 billion, showing a 130-percent increase in just five years. Remittances almost triple the value of the Official Development Assistance (ODA) provided to low-income countries and comprise the second-largest source of external funding for developing countries after Foreign Direct Investment (FDI). Significantly, remittances tend to be more predictable and stable than FDI or ODA. They continued to rise during the Asian financial crisis, for example, while FDI flows fell. This is not an isolated case. The World Bank data indicates that when a country encounters political or economic difficulties, citizens who are living and working abroad support their compatriots by increasing the amount of money they send home (GCIM 2005: 26).

The mutual benefit of all participating actors makes illegal migration an essential and everlasting element of the world economic structure despite official attempts to combat it. The problem of illegal migration cannot be solved while on the labor markets of receiving countries there are possibilities for illegal job placement and interest of employers and government in cheap and disfranchised manpower that can provide the decrease of costs for social care and consequently provide lower price and higher competitiveness. On the other hand, the economic situation in the countries of leaving is always an active pushing out factor.

Together with the economic factors of illegal immigration we have to point at the political factor that is contributing to the increase of illegal migration scales provoking it from the side of host country as well as from the side of country of leaving. The Chinese government supposes that the USA in fact encourages illegal migration by giving political asylum to the most of the Chinese migrants while they are usually moved with economical reasons. At the same time, the Mexican Government, aimed at softening the problem of poorness, supports migration to the USA. Future illegal migrants are supplied with a necessary stock of food, water and medicine; they also get the address of social services that welcome immigrants without any questions (Buchanan 2004).

Economic and political relationships between the countries play an important role in the increase of illegal immigration, including traditional migration ties, gaps in economic development and cost-of-living indices, *etc.* Speaking about Russia and other former Soviet states, we mention the following factors affecting illegal immigration:

- a better economical situation in Russia in comparison with other CIS countries;

- weakness of boundaries (poor boundary infrastructure and lack of control especially in the Asian region);
- lack of common Russian labor market;
- a huge share of informal economy;
- lack of language barrier;
- a weak punishment for usage of illegal manpower;
- contradictions in Russian law of foreigners' enter and work placement.

The important factor of illegal immigration in some countries is their geographical position as **transit countries**. Many countries of East and South Europe face this problem. For instance, the Government of Malta claimed several times that they cannot manage with a huge number of immigrants from Africa that pass through Maltese waters to Italy, but have accidents and illegal landings to the banks of Malta. Starting from 2006, the European Union started to control water boundaries of Malta to stop the boats with illegal immigrants in advance.

Russia is facing a similar situation. After it has joined international migration flows in the late 1980s and early 1990s, it has faced different, sometimes unexpected, consequences. One of them is related to Russia's geopolitical position as a transit country for migrants from Asia and Africa forwarding to Europe. One can agree that Russian official bodies responsible for migration management failed to take transit migrants under control. Coming with transit or tourist visa or illegally, they may be simply lost in the large country. At the same time, the border control at the western Russian boundaries is strict. By preventing illegal departure of transit migrants who stay in Russia, the Russian border services make the country a 'settling pot' for illegal migrants.

In the late 1990s, growing illegal immigration has changed its scale and structure. Russia has become the destination country for irregular labor migrants from the former Soviet states. In recent years, the labor migration becomes dominant. This fact influences upon Russian labor market (in particular, the labor markets of Moscow and the Moscow Province, St-Petersburg and its Province, the Krasnodar Province, *etc.*). It is mainly related to migration from neighboring former USSR countries.

The majority of illegal migrants enter Russia legally (for work, study, as tourists or with private invitations) but later they start to work illegally on the Russian territory. The major countries of origin are Uzbekistan, Ukraine, Tajikistan, Azerbaijan, and Kyrgyzstan.

The surveys show that main spheres of employment of illegal immigrants in central regions and big cities of Russia are construction, commerce, public transport, and small-scale industries. In the cities they are usually involved in: jobbing, market trading, private taxies, repairing, cottage building, restaurant service and some others. In the countryside the illegal migrants are usually engaged in seasonal building and agricultural works. Another option is an informal sector that does not require registration and at the same time allows people earn money quickly while avoiding taxes (which is nearly impossible in the developed countries).

When irregular migration obtains a significant scale, it has a number of negative social and economic consequences. We identify the main of them:

- spreading of shadow economy, as the irregular migrants create unjustified benefits for the companies employing them in comparison with other companies;
- by creating goods and services market out of control, stimulating the development of shadow economy and breaking the system of relations between market players and government, illegal immigration hampers the development of effective civilized national labor market;
- illegal immigration can be related to smuggling, prostitution and drugs distribution and other criminal activities;
- illegal immigrants do not pay taxes and the companies employing them do not pay social security payments that lead to the lost fiscal gains. In some cases illegal immigration can also result in the tax increase for native inhabitants as the budget loses money to support immigrants: for education for their children, security, prisons *etc.*;
- illegal immigration challenges and threatens public security, especially when it involves corruption and organized crime;
- the guaranteed minimum wage does not wound illegal immigrants that may cause the decrease of wages for unskilled workers;
- employees can ignore the requirements of safety, health care and accident prevention practices, this can lead to the injuries and even death of the immigrants;
- with an illegal status, migrants do not have medical checkup to define if they have diseases; they do not always make use of public services to which they are entitled, for example emergency health care. At the same time they can be exposed to the risk of illness especially if they travel illegally or under compulsion, because of bad and unsanitary conditions of living, hard labor conditions and extra labor exploitation. It might cause serious medical risks as the diseases may spread among population of the receiving country;
- migrants with irregular status are often unwilling to seek help from the authorities because they are afraid of arrest and deportation, that is why they usually become victims of crime;
- illegal immigration increases the crime rate;
- illegal immigration is usually followed by creation of ethnic communities with significant ethnical and cultural distance from the local population that prevents them from integration into the receiving society. This may result in social and ethnical tension, strengthening of extremist nationalist tendencies;
- illegal immigration can also generate xenophobic sentiments directed not only at migrants with irregular status, but also at regular migrants, refugees and ethnic minorities, that may lead to the social split;
- illegal immigration is the main factor for ultra-right parties to win at the elections;
- social exclusion of illegal migrants from receiving society, forming of separate zones for migrants where they live according to their ethnic-based norms and values (ethnical enclaves) that is making integration of immigrants into the host society difficult or even impossible;
- in case of unfavorable development (prolonged accumulation of illegal immigrants) the situation can get beyond control in some regions of country.

Such combination of factors is the reason for growing problems related to illegal immigration and illegal employment of foreigners. The criminal groups' activities enhance the situation. They 'assist' illegal immigrants to get job in the shadow sector or clandestine industries, or use them for executing risky crimes. In fact, they contribute to the growth of the global scale of illegal immigration despite declared counter-irregular migration strategies in most receiving countries.

Illegal Immigration and State Migration Policy

The increasing scope of the phenomenon in question requires referring to numerous international practices in the field of regulating the migration flows.

In general, according to the state immigration policy the following measures against illegal forms of immigration can be taken: prevention (by information campaigns and special services for potential migrants); enhancement of border control; punishment of human traffickers and smugglers; strict sanctions against employers who hire migrants illegally; development of international cooperation between countries of destination, origin and transit in the field. There are exceptions when such immigrants can be legalized as well; however, it is possible only in limited cases and for particular reasons according to international law. At the same time, when arranging struggle against illegal immigration it is important to maintain a general confidence in asylum granting systems and in common migration channels.

In the recent years, governments in many countries, including Russia, have been toughening up the immigration policy. Confronting increasing international terrorism threat, the following aspects become of prior significance: immigration control; intensification of migrants' filtration according to national security requirements; toughening up measures against illegal immigration.

Strict laws against illegal immigration and against hiring illegal immigrants have passed lately almost in all developed countries: in 1986, 1990 and 2007 – in the United States, in 1988–1990 – in Italy and Spain, in 1999 – in the United Kingdom, in 2002 – in Germany, *etc.*

Measures to reduce illegal immigration are introduced in the following main directions:

- *prevention of illegal immigration.* Information campaigns in the press, on television and radio in the main emigration countries, clarifying terms and conditions of stay and employment abroad, as well as dangers of legal immigration. With these campaigns, potential migrants in the countries of their permanent residence will be able and are expected to receive essential information on advantages of legal ways of immigration, transit and employment in the host countries. For example, under the European Commission initiative, special information centers in the countries with the largest expected emigration flow are settled. Their main function is to provide people with information on legal seasonal employment opportunities in the EU and to carry out information campaign about dangers of illegal immigration.

- *intensifying border control.* The European Commission considers that one of the key security components is an effective guarding of the EU external borders. It is important not only in the context of anti-terrorism protection, but also against illegal immigration,

human trafficking and organized crime as well. European borders protection agency – Frontex – is in charge of this security goal.

- *suppression of criminal organizations activity*, that are engaged in illicit transit of migrants; *granting special visas* to those persons who act as witnesses against participants of such criminal groups;

- *imposing sanctions against transporters* – that is against transport companies bringing illegal immigrants on surface, by water or air;

- *increasing the extent of foreign citizens' responsibility* for illegal stay in the country. Among the measures against such behavior there are administrative penalty, detention, custodial placement, deportation, interdiction or restrictions on re-entering the country;

- *introducing administrative and criminal liability of employers* for hiring illegal labor force (*e.g.*, levying delayed tax payments and social transfers of these companies, commerce license withdrawal, shutdown, deportation expenses payment, imprisonment of directors);

- *intensifying cooperation between countries of destination of illegal immigrants*, interaction with countries of origin and transit of illegal migrants. In particular, re-admission agreements are signed within the frames of this direction.

The analysis of existing laws shows an ambiguous nature of host countries' policy against illegal immigration. On the one hand, policy on newly arriving migrants becomes more and more restrictive. On the other hand, there is a legalization policy for those who arrived to the country earlier and were hired illegally. Thus, during the period from 1980 to 2010 about 25 migration amnesties took place in developed countries and more than 7 millions illegal immigrants was amnestied. It is significant that some experts oppose such campaigns as the last; in their opinion, migrants' amnesties can only increase the scale of illegal immigration (for more details see OECD 2000: 53–70).

In 2003–2005, the Global Commission on International Migration was launched by the United Nations Secretary-General and a number of governments. It was given the mandate to provide the formulation of a coherent, comprehensive and global response to the issue of international migration and to achieve a more effective governance of it. One of the eight thematic projects was 'Irregular migration, state security and human security'. This project examines the use and adequacy of different terms to be used in relation to the irregular immigration; examines the ways in which and the extent to which irregular migration constitutes a real or perceived threat to state security and sovereignty; provides an assessment of state policy and practice in relation to control of irregular migration. According to the recommendations of the Commission: border control policies should form part of a long-term approach to the issue of irregular migration that addresses the socio-economic, governance and human rights deficits that prompt people to leave their own country; states should address the conditions that promote irregular migration by providing additional opportunities for regular migration and by taking action against employers who engage migrants with irregular status; states should resolve the situation of migrants with irregular status by means of return or regularization; states must strengthen their efforts to combat the distinct criminal phenomena of migrant smuggling and human trafficking. In both cases, perpetrators must be prosecuted, the demand for exploitative services eradicated and appropriate protection and assistance provided to victims; states

must respect the human rights of migrants, the institution of asylum and the principles of refugee protection (www.gcim.org).

As regards situation in Russia, at the moment almost all the attention of Federal Migration Service (FMS) is concentrated on prevention of illegal immigration and struggle against it. Thus, the FMS is entrusted with developing and carrying out the state migratory policy. This leads to such an attitude of FMS heads to migration processes that is still very similar to the police one, and migration itself (both legal and illegal) is considered, first of all, as a threat to Russian national security. Thus, according to Konstantin Romodanovsky, the FMS Director, illegal labour migration undermines competitiveness of the Russian labor market and in 2012 federal taxes losses caused by illegal migrants staying in Russia exceeded 40 billion rubles (about USD 1,3 billion).

To summarize, it is necessary to note that questions connected with illegal immigration management require complex approach. These problems should be considered in a broader context of the general immigration legislation. First of all, it should include definite juristic regulation of criteria and procedures for legal entrance to the country. This regulation should take into account the variety of modern immigration flows.

International experience of struggle against illegal immigration proves that in modern democratic societies this problem cannot be completely solved. At the same time it can be significantly reduced by encouragement of legal labor migrations.

In order to estimate illegal immigration effectively, first of all, it is essential for Russia to develop a juridical base for legal immigration, extend opportunities for legal residence in the country, and simplify procedures of getting work permit. On the other hand, policies on illegal immigrants and employers that break the law should be toughened up.

With expanded legal safeguards, a part of immigrants who now prefer illegal ways of entering and staying in the country will switch to legal position. It is significant that Russian recent legislative initiatives concerning the migration management that were put into the force in 2007–2012 can help this process. However, they cannot give a fundamental solution to the problem of illegal immigration as long as its advantages are evident for those who benefit from it (businessmen, employers, consumers, representatives of legal bodies, human traffickers, *etc.*).

References

- Aleshkovski, I., and Iontsev, V. 2006.** Illegal Immigration in the Social and Political Discourse. In Iontsev, V. (ed.), *International migration: Economics and Politics*. Scientific Series 'International Migration of Population: Russia and the Contemporary World' (pp. 28–50). Vol. 18. Moscow: TEIS. *In Russian*.
- Buchanan, P. J. 2004.** *The Death of the West*. Moscow: AST. *In Russian*.
- GCIM 2005.** *Migration in an Interconnected World: New Directions for Action*. URL: www.gcim.org.
- Ghosh, B. 1998.** *Huddled Masses and Uncertain Shores: Insights into Irregular Migration*. The Hague – Boston – London: Martinus Nijhoff.
- ILO 1974.** *Resolution concerning Future ILO Action in the Field of Migrant Workers*. Geneva: ILO.

- ILO 1975.** *Convention No. 143 'Migrant Workers'. Supplementary Provisions.* URL: http://www.ilocarib.org.tt/projects/cariblex/pdfs/ILO_Convention_143.pdf
- ILO 2004.** *Towards a Fair Deal for Migrant Workers in the Global Economy.* International Labour Conference, 92nd Session. Report VI. Geneva: ILO.
- IOM 2011.** *Handbook on Migration Terminology. Russian-English.* Moscow: International Organization for Migration.
- Iontsev, V. M. 2002. (Ed.).** *Illegal Immigration. Volume 9. Scientific Series 'International Migration of Population: Russia and Contemporary World'.* Moscow: MAKS-Press. *In Russian.*
- Jandl, M., Vogel, D., and Igliecka, K. 2008.** *Report on Methodological Issues.* Report Prepared for the Research Project CLANDESTINO. URL: http://irregular-migration.net/typo3_upload/groups/31/4.Background_Information/4.1.Methodology/Methodological_Issues_Clandestino_Report__Nov09_2.pdf
- Krasinets, E. S., Kubishin, E. S., and Tyuryukanova, E. V. 2000.** *Illegal migration to Russia.* Moscow: Academia. *In Russian.*
- Linderdt P. 1992.** *International Economy.* Moscow: Progress. *In Russian.*
- Morehouse, Ch., and Blomfield, M. 2011.** *Irregular Migration in Europe.* Washington, D. C.: Migration Policy Institute. URL: www.migrationpolicy.org.
- Vorobyeva, O. 2001. (Ed.).** *Migration of Population. Migration Policy* (pp. 81–73). Moscow. *In Russian.*
- OECD 2000.** *Combating the Illegal Employment of Foreign Workers.* Paris: OECD.
- Okolski, M. 2000.** *Illegality of International Population Movements in Poland. International Migration* 38(3): 57–90.
- Papademetriou, D. G. 2005.** *The Global Struggle with Illegal Migration: No End in Sight.* Washington, D. C.: Migration Policy Institute.
- Perruchaud, R. 2004.** *International Migration Law: Glossary on Migration.* Geneva: International Organization for Migration.
- Tapinos, G. 2000.** *Illegal Migration: Economic and Political Issues. Combating the Illegal Employment of Foreign Workers.* Paris: OECD.
- UN 1994.** *International Conference on Population and Development. Programme of Action.* Cairo: United Nations.
- UN 2002.** *International Migration.* New York: United Nations.
- Vitkovskaya, G. S. 2002. (Ed.).** *Immigration Policy of Western Countries: Alternatives for Russia.* Moscow: Gendalf. *In Russian.*

Culture and the Sustainability of the Global System¹

Ervin Laszlo

The values and associated behaviors of the dominant culture of the contemporary world gave rise to a globally extended system that is not sustainable in its present form. If a cataclysmic breakdown is to be averted, the influential culture that shapes today's world must change. Humanity can no longer afford to be dominated by a narrowly materialist and manipulative culture focused on ego-centered, company-centered, or nation-centered short-term benefit, with no regard to the wider system that frames existence on this planet. Consciously moving toward a harmonious system of cooperative societies focused on the shared objective of sustaining the systems of life on the planet is an urgent necessity. To this end a mutation is needed in the cultures of the contemporary world, so as to create the values and aspirations that would bring together today's individually diverse and largely self-centered societies in the shared mission of ensuring the sustainability of the global system of humanity in the framework of the biosphere.

The global system is highly diverse today, but it is insufficiently coordinated. Creating a higher level of unity within its diversity is intrinsically feasible: it calls for system-maintaining cooperation among the diverse societies that make up the system.

Keywords: sustainability, cultural mutation, global warming, diversity, cooperation.

The Cultural Roots of the Unsustainability of the Contemporary World

Today's socioeconomic and ecological world system is structurally unstable and dynamically unsustainable. This condition has been created by practices oriented by the values and perceptions of a dominant layer of society. These values and perceptions have now become largely obsolete. For example:

Nature is inexhaustible. The long-standing belief that the Earth is an inexhaustible source of resources and an inexhaustible sink of wastes leads to the over-mining of natural resources and overloading of the biosphere's regenerative cycles.

The biosphere is a mechanism. The belief that we can engineer the biosphere like a building or a bridge is producing a plethora of unforeseen and vexing side-effects, such as the destruction of natural balances and the disappearance of myriad living species.

Life is a struggle where the fittest survives. This application of Darwin's theory of natural selection to society is mistaken in principle (Darwin did not mean by the 'fittest' the strongest and most aggressive, but the most adaptive and cooperative), and it is

¹ This article was first published in *Journal of Globalization Studies*, Vol. 3, Num. 2, 2012, pp. 3–9.

dangerous: it produces a growing gap between rich and poor, and legitimates the use of force on the premise that the possession of power is the natural attribute of a species that is fit to survive.

The market distributes benefits. The free market, governed by Adam Smith's principle of the 'invisible hand', is believed to distribute the benefits of economic activity in society. However, the poverty and marginalization of nearly half of the world population indicates that under current conditions trust in this belief is unfounded. The invisible hand does not operate: the holders of wealth and power garner for themselves a disproportionate share of the material benefits resulting from economic activity.

Some of the current beliefs produce paradoxical conditions.

- Millions are suffering from overeating and obesity, while a thousand million go hungry.

- Six million children die annually of starvation, and 155 million are overweight.

- There are millions of intelligent women ready to play a responsible role in society, but they do not get a fair chance in education, business, politics, and civic life.

- In order to save on the cost of labor, millions are put out of work, wasting human capital that would be essential to tackle the social, economic, and environmental problems now faced by humanity.

- Vast herds of animals are brought into the world for the sole purpose of being slaughtered for meat, something that, apart from its questionable ethical and health implications, is wasting an enormous amount of water and grain, resources urgently needed to ensure nutrition for human populations.

- The problems of the human community call for long-term solutions, but the criterion of success in the business world is the bottom line in annual or semi-annual corporate profit-and-loss statements.

- The planet is bathed in solar energy, and technologies are on-line to tap the energy of wind, tides, hot subsurface rocks, biomass, and animal waste and side-products, yet the world continues to run on polluting and finite fossil fuels and inherently dangerous nuclear power.

- Hi-tech weapons that are more dangerous than the conflicts they are intended to cope with are developed and stockpiled at vast investment of money and human and natural resources.

- The ineffectiveness of military force to achieve economic and political objectives has been demonstrated over and over again, yet the world's governments spend over \$1.2 trillion dollars a year on arms, wars and military establishments, and similar amounts on empire-building objectives often disguised as projects of national defense and homeland security.

Such values and beliefs, and the conditions, to which they give rise, produce multiple strands and forms of unsustainability. They are manifest in the contemporary world in the sphere of society, in that of the economy, as well as in the domain of the ecology.

The Strands of Unsustainability

1. Unsustainable conditions in society

In the rich countries job security is disappearing, competition is intensifying, and family life is suffering. More and more men and women find satisfaction and

companionship outside rather than within the home. And in the home, many of the functions of family life are atrophying, taken over by outside interest groups. Child rearing is increasingly entrusted to kindergartens and company or community day-care centers. The provision of daily nourishment is shifting from the family kitchen to supermarkets, prepared food industries and fast food chains. Leisure-time activities are colored by the marketing and public relations campaigns of commercial enterprises. Children's media exposure to TV, video games, and 'adult' themes is increasing, and it motivates violent and sexually exploitative behavior. In the United States the rate for first marriages ending in divorce is fifty percent, and about forty percent of children grow up in single-parent families for at least part of their childhood.

Social structures are breaking down in both the rich and the poor countries. In poor countries the struggle for economic survival destroys the traditional extended family. Women are extensively exploited, given menial jobs for low pay; often they are obliged to leave the home in search of work. Fewer and fewer women have remunerated jobs and more and more are forced to make ends meet in the socially and economically marginal informal sector. According to the International Labour Organization, fifty million children, for the most part in Africa, Asia, and Latin America, are employed for a pittance in factories, mines, and on the land. In some countries destitute children are recruited as soldiers and forced into prostitution, or are forced to venture into the streets as beggars.

2. Unsustainability in the economy

The human community is economically polarized: there is a large and in some regions still growing gap between diverse layers of population. The gap depresses the quality of life of hundreds of millions, and reduces the chances of survival of the poorest and most severely marginalized populations.

a) *Wealth distribution.* Wealth and income differences have reached staggering proportions. The combined wealth of the world's billionaires equals the income of three billion people, nearly half of the world's population. Eighty percent of the global domestic product belongs to one billion, and the remaining twenty percent is shared by six billion.

Poverty has not diminished in absolute numbers. In the poorest countries seventy-eight percent of the urban population subsists under life-threatening circumstances – one in three urban dwellers lives in slums, shanty towns, and urban ghettos, and nearly one billion are classified as slum-dwellers. Of the seven billion people who now share the planet, 1.4 billion subsist on the equivalent of less than 1.25 dollars a day and an additional 1.6 billion live on less than 2.50 dollars.

b) *Resource use.* The rich-poor gap shows up in food and energy consumption as well as in the load placed on natural resources. People in North America, Western Europe, and Japan consume 140 per cent of their daily caloric requirement, while populations in countries such as Madagascar, Guyana, and Laos live on 70 per cent. The average amount of commercial electrical energy consumed by the Africans is half a kilowatt-hour (kWh) per person; the corresponding average for the Asians and Latin Americans is 2 to 3 kWh, and for the Americans, Europeans, Australians, and Japanese it is 8 kWh. The average American burns five tons of fossil fuel per year, in contrast

with the 2.9 tons of the average German and places twice the environmental load of the average Swede on the planet, three times that of the Italian, thirteen times the Brazilian, thirty-five times the Indian, and two hundred and eighty times the Haitian.

Reducing excessive resource use is made urgent by the rapid growth of the population. World population has increased from about five billion twenty-two years ago to about seven billion today. Today, for the first time in history, in regard to a number of natural resources the rising curve of human demand exceeds the descending curve of natural supply. Since the end of World War II, more of the planet's resources have been consumed than in all of history until then. Global consumption is nearing, and in some cases has already surpassed planetary maxima. The production of oil, fish, lumber, and other major resources has already peaked; forty percent of the world's coral reefs are gone, and annually about 23 million acres of forest are lost. The per capita availability of land for meeting human requirements has shrunk from 19.5 acres per person in 1900 to less than 5 acres today. Ecologists also speak of 'peak water', since the quantity of water suited for human use in the biosphere is rapidly diminishing.

The Fourth *Global Environment Outlook* of the UN Environment Programme estimated that satisfying the average resource demand in the world calls for the use of around 8.9 acres of land per person. (This figure masks great disparities between rich and poor economies: resource availability drops to 1.23 acres in the poorest countries such as Bangladesh, and mounts to 25.5 acres in the United States and the oil-rich Arab states.) However, 8.9 acres is more than twice the amount of land that could respond to human use on a sustainable basis: the sustainable 'Earth-share' of every man, woman and child on the planet is 4.2 acres (UNEP n.d.).

c) *The financial system.* The precarious structure of the world's financial system is a major factor in the unsustainability of the world's economy. Instability in the financial sector is not a new phenomenon, but it was not widely recognized prior to the credit crunch of 2008. The bubble that burst at that time has led to the loss of over two million jobs in the United States alone, and resulted in a global reduction of wealth estimated at 2.8 trillion dollars.

The structural unsustainability of the world's financial system is not uniquely due to the creation and burst of speculative bubbles: it is rooted in the imbalance of international trade. Already in 2005, the IMF's *Economic Outlook* (IMF 2005) noted that it is no longer a question of *whether* the world's economies will adjust, only *how* they will adjust. If measures are further delayed, the adjustment could be 'abrupt', with hazardous consequences for global trade, economic development, and international security.

3. Unsustainability in the ecology

Social, economic, and financial unsustainability is exacerbated by damages produced by human activity in the environment, resulting in a diminution of the resources effectively available for social and industrial use.

a) *Water.* The amount of water available for per capita consumption is diminishing. In 1950 there was a potential reserve of nearly 17,000 m³ of freshwater for every person then living. Since then the rate of water withdrawal has been more than double the rate of population growth, and in consequence in 1999 the per capita world water reserves decreased to 7,300 m³. Today about one-third of the world's population does not have

access to adequate supplies of clean water, and by 2025 two-thirds of the population will live under conditions of critical water scarcity. By then there may be only 4,800 m³ of water reserves per person.

b) *Productive land*. There is a progressive loss of productive land. The Food and Agriculture Organization estimates that there are 7,490 million acres of high quality cropland available globally, seventy-one percent of it in the developing world. This quantity is decreasing due to soil erosion, destructuring, compaction, impoverishment, excessive desiccation, accumulation of toxic salts, leaching of nutritious elements, and inorganic and organic pollution owing to urban and industrial wastes.

Worldwide, 12 to 17 million acres of cropland are lost per year. At this rate 741 million acres will be lost by mid-century, leaving 6.67 billion acres to support 8 to 9 billion people. (This figure may still be overly optimistic, since the amount of available land will be further reduced by flooding due to a progressive rise in sea levels.) The remaining 0.74 acres of productive land could only produce food at the bare subsistence level.

c) *Air*. Changes in the chemical composition of the atmosphere reduce the availability of air capable of supporting adequate health levels. Since the middle of the nineteenth century oxygen has decreased mainly due to the burning of coal, and it now dips to nineteen percent of total volume over impacted areas and twelve to seventeen percent over major cities. At six or seven percent of total volume, life can no longer be sustained. At the same time, the share of greenhouse gases is growing. Two hundred years of burning fossil fuels and cutting down large tracts of forest has increased the atmosphere's carbon dioxide content from about 280 parts per million to over 350 parts per million.

At the same time, carbon dioxide is accumulating in the atmosphere. During the 20th century human activity has injected one terraton of CO₂ into the biosphere, and is currently injecting another terraton in less than two decades. The speed with which carbon dioxide is introduced makes it impossible for natural ecosystems to adjust. In the oceans, the explosive growth of CO₂ at the surface makes the water too acid for the survival of shell-forming organisms, the basis of the marine chain of life. On land, carbon dioxide absorption is reduced by the destruction of the ecosystems that had previously absorbed this gas. As much as 40 per cent of the world's forest cover has disappeared, due to acid rain, urban sprawl, and the injection of a variety of toxins into the soil.

The influx of greenhouse gases generated by human activity is matched by an influx from nature that is also largely catalyzed by human activity: the warming of the atmosphere. In Siberia a million square kilometer area of permafrost formed 11,000 years ago at the end of the last ice age is now melting. The area, the world's largest peat bog, is releasing as much methane into the atmosphere as all of human activity put together.

d) *Global warming*. The cumulative effect of the changes induced by human activity produces a greenhouse effect.

In recent years average temperatures have risen significantly, and the warming trend is accelerating. Conservative elements claim that global warming is due primarily to natural causes, at the most exacerbated by human activity: a new cycle in the fusion-processes that generate heat in the Sun sends an increasing amount of solar radiation to Earth, and this heats up the atmosphere. However, the injection of carbon dioxide, together with methane and other greenhouse gases into the atmosphere is likely to be a significant

factor in creating and accelerating the global warming trend. The historical record of the past million years shows that the amount of CO₂ in the air correlates with variations in temperature: even if with some time delay, more carbon dioxide correlates with higher temperatures. A humanly generated shield in the upper atmosphere is now preventing heat generated at the surface from escaping into surrounding space.

Climate models show that even relatively minor changes in the composition of the atmosphere can produce major effects, including widespread harvest failures, water shortages, increased spread of diseases, the rise of the sea level, and the die-out of large tracts of forest. Global warming is already producing persistent drought in various parts of the world. In Northern China, for example, prolonged aridity has prompted the government to generate rainfall through artificial cloud-seeding.

By reducing the yield of productive lands, drought is creating a global food shortage. It is exacerbated by falling world food reserves: the current stocks are not sufficient to cover the needs of the newly food-deficit countries.

The Need for Cultural Mutation

The practices that characterize human activity have their roots in the dominant values and perceptions of people. These values and perceptions are now obsolete. Allowing them to inspire action is strongly counterproductive; it produces growing crises and could issue in a world-scale breakdown.

The values and practices that inspire the dominant practices of the contemporary world need to change. We need a conscious and well focused cultural mutation.

The needed cultural mutation does not require people and societies to reject and discard their cultural heritage or disown their cultural preferences. It only requires a positive change in regard to those values and beliefs that reduce the sustainability of the system that frames human life on the planet.

Diversity is a positive attribute of the world system; a significant reduction would impair its resilience. Monocultures are inherently unstable, in society the same as in nature. Diversity, however, needs to be balanced by unity. Viable systems manifest unity within diversity: their diverse parts or elements are cooperatively focused on the attainment of shared goals, above all, that ensuring the continued persistence of the whole system.

Ground Rules for Harmonizing the Diversity of the Contemporary World

The ground rule for achieving a higher level of unity in the contemporary world is simple and basic: maintain the diversity of the cultures and societies that compose the system, but join it with a higher level of harmony among them. A global-level harmonization of the system's diverse elements would allow the pursuit of a variety of goals and objectives as long as they do not damage that vital balances and processes that maintain the whole system. Achieving a higher level of dynamic stability in the world system is in the best interest of all people and societies, since without an adequate level of viability in the whole system, the viability of its parts is compromised.

The basic ground rule is both simple and evident:

Allow diversity to flourish among the cultures and societies that make up the contemporary socioeconomic and ecological world system, but do not allow this diversity to damage or destroy the harmony required to ensure the overall system's viability.

Additional precepts are required to ensure the effective application of the basic rule:

– Every society has an equal right to access and use the resources of the planet, but it also has equal responsibility to sustain the world system on the planet.

– Every society is free to live in accordance with the values and beliefs that accord with its historical heritage and its current wisdom, as long as these values and beliefs do not result in action that constrains the freedom of other societies to live in accordance with their own values and beliefs.

– All societies have a legitimate obligation to safeguard the freedom, physical security, and territorial integrity of their population, and to this end maintain an armed force, but no society has the right to produce and stockpile weapons that threaten the freedom, physical security, and territorial integrity of any other society.

– All societies forego technologies that waste essential resources, produce dangerous levels of pollution, or pose a threat to the health and well-being of their own people and the people of other societies.

Embracing these and related ground-rules would allow the world system to achieve the unity required to balance its diversity and thereby create and sustain conditions necessary to ensure the flowering of human life and well-being. Motivating and promoting the cultural mutation that would inspire and motivate this vital development is the moral obligation of all conscious and rational members of the human family.

References

IMF – International Monetary Fund. 2005. *World Economic Outlook: Globalization and External Imbalances*. URL: <http://www.imf.org/external/pubs/ft/weo/2005/01/index.htm>

UNEP – United Nations Environment Programme. n.d. *GEO 4. Global Environment Outlook: Environment for Development*. Nairobi: United Nations Environment Programme. URL: <http://www.unep.org/geo/geo4.asp>

Part III. TEACHING GLOBAL STUDIES

Section 1. TEACHING GLOBAL STUDIES: REFLECTIONS AND EXPERIENCE

Reflections on Some of the Challenges of Global Affairs as an Academic Field

Jean-Marc Coicaud

This short paper focuses on three issues. First, it briefly examines the increasing recognition of the necessity to think and act more and more globally, a situation that calls for developing and tailoring knowledge and policy tools to the global level and the needs it entails. Second, it refers to the challenges that, in academia, stand in the way of making this possible. Real and not easy to tackle, these challenges are intellectual, institutional, and human. Third, the paper puts forward a few recommendations to improve the academic field of research and study of global affairs and global studies.

1. Beyond the National Structure of the World

The world continues to be structured around the nation-state. This is seen in a variety of ways, one of them being the fact that for most people, except for a small transnational elite, the national community remains the primary context of socialization. This is true in terms of education and culture. Although more and more children and young adults are exposed to the increasing internationalization of education and culture, for example via the internet, most of them are formally schooled and, more generally, culturally educated in one world.

The national anchoring of individuals is also at work in political terms. To this day, despite the other local, regional, and international affiliations they may have, people experience political identification, participation, expectation, and obligation – four key elements of political socialization – chiefly at the national level. More specifically, the national dimension represents the main point of reference of identification and the framework for the various forms of political participation in which individuals engage, elections to begin with. In this perspective, people are prone to direct their expectations toward their national political leaders and institutions and the services they are supposed to deliver to society and its members. As for obligations, they are essentially geared toward fellow citizens. The limits of the sense of responsibility and solidarity beyond borders are a case in point. Incidentally, these limits are all the more real that *within* borders, with the spread of neo-liberalism and the economic crisis, responsibility and solidarity toward others are becoming more fragile. In this context, it is only normal for politicians

to continue to focus on national needs and dynamics. On the other hand, it is problematic for them to follow this path and difficult to succeed considering that the structure of the international system built around the nation-state and the national bent that this injects into international (and national) life is now only one part of the environment in which we live. Equally important is the globalization of the world.

To be sure, this globalization is not total. It is partial and unevenly distributed around the world in terms of its impact. But it is significant and massive enough to change the nature and functioning of most societies. Compared to the past, societies are less closed and self-contained, and more open and interdependent. For better or for worse, the economy is a prime example of this situation: by and large, national economies are increasingly internationalized. In the environment, too, problems arise and solutions have to be found globally. In the last two decades, information technology and the acceleration of economic globalization, including in the context of the 2008 financial and economic crisis, have only deepened this movement.

Against this background, the globalization of the world, its characteristics and effects, calls for being studied, understood and, somehow, anticipated so that, rather than being a source of alienation, it is as much as possible a source of individual and collective empowerment. For this to happen, relying on the existing knowledge and its forms of production, organization and dissemination is not sufficient. These have to be renovated and adapted to the transformations underway. In other words, knowledge in its various components has to be developed for and tailored to the global level. It is all the more the case since, whether we like it or not, with the internet, information and knowledge are already key areas impacted by globalization.

It is in part the recognition of this necessary renewal of the content, production, organization, and dissemination of knowledge that has led, in the past ten years or so, academic institutions to internationalize themselves.¹ Among other things this has entailed two trends, first, putting in place international partnerships of universities allowing them to join forces on research and teaching global agendas and offering mobility to students (with the possibility of dual degrees across borders) and faculty and, second, for some universities, building academic programs devoted to global affairs or studies. In the field of international affairs, the Global Public Policy Network (GPPN), created in 2005 and bringing together Columbia University's School of International and Public Affairs (SIPA), the London School of Economics and Political Science (LSE), the Institut d'Etudes Politiques de Paris (Sciences Po), and Lee Kuan Yew School of Public Policy is one of these partnerships – and one that is very active and successful. Another one is the Global Studies Consortium, a network of graduate teaching programs on global studies established in 2007. Nineteen universities from around the world are part of the network, such as Australian National University, Aarhus University, Hitotsubachi

¹ Interestingly, and not surprisingly, in the United States, the internationalization movement of universities has been led by private academic institutions. The drive to enroll international students, a major source of revenue and global reach, is part of the explanation. However, if public universities do not attempt to catch up in this area, the advantages from which students from global private universities already benefit will deepen. This will make it all the more difficult for state universities' students, who often do not have the cultural and social capital of private universities' students, to compete for good global jobs, or even local jobs impacted by globalization.

University, Lomonosov Moscow State University, Rutgers University (with its Division of Global Affairs), and Shanghai University.²

2. Identifying the Challenges of Global Affairs and Global Studies

These recent academic initiatives certainly represent steps forward, and necessary ones indeed. However, they should not be viewed as all that is needed for making sense of the on-going globalization and at the same time taking advantage of it, in particular by training in the universities of today the national/global professionals and citizens that the world of tomorrow is mostly likely to need. In fact, much remains to be done and the difficulties and challenges that have to be tackled, let alone overcome in achieving this latter goal, make it an uphill battle. This is the case partly because Global Affairs / Global Studies, if and when they are taken seriously in terms of what they demand and imply, are a new field of research, teaching, and practical expertise. In this regard, three types of challenges, among others, have to be highlighted. They are intellectual, institutional, and human types of challenges.³

On the intellectual front, it is now acknowledged more and more that in order to address the perils and fulfill the promises of a future made of a globalizing world, it is imperative to ensure that knowledge in research and teaching, especially in the social sciences and related disciplines, exhibit at least three features. They will have to be multi-disciplinary, global in outlook, and attentive to policy skills. Yet, they are still deficient in these three categories.

Surely, the academic programs that have emerged in various parts of the world focusing on global issues are by and large multi-disciplinary, which is good. The problem is that the multi-disciplinary character of their curriculum rests essentially on the aggregation of disciplines. This is certainly better than functioning within one discipline and being somewhat the captive of it. But it is not as ground-breaking as being able to put forward what could be called integrated multi-disciplinary, that is a type of multi-disciplinarity in the context of which, in addition to discipline-oriented courses, a significant number of courses would be by nature multi-disciplinary.

The lack of global outlook is another intellectual challenge. Indeed, to this day, the humanities and social sciences disciplines essentially amount to national or nationalized bodies of knowledge. This is not surprising considering that many of them have historically developed in conjunction with the national realm and the nation-state. As such, they have come to echo national concerns and sought to address national problems, and bring national solutions to them. In the humanities, think for instance about philosophy and, more specifically, political philosophy. Until recently, with the exception of a few authors, its main purpose has been to reflect on the conditions of possibility of justice within a given (national) community. Consequently justice beyond borders has been secondary. Moreover, it has been limited to *inter-national* justice, which is another way to have the national realm serve as the reference point, making hardly any room for global justice.

² These are not, of course, the only models of internationalization of universities and academic knowledge. Another one, being developed by New York University, entails the establishment of satellite campuses, for the moment in Abu Dhabi and Shanghai.

³ These intellectual, institutional and human challenges are not specific to global affairs. For instance, the track record shows that they exist also in women and gender studies, cultural studies and ethnic studies.

In the social sciences, think about history. Although comparative history and world history have been gaining traction, as a whole, the discipline of history remains a highly nation-centric one. This is also the case for sociology, which has developed as a field designed and aimed at making sense of social relations within the context of national societies. Other examples are statistics and public policy. The strong role they have played in supporting the effectiveness of the modern nation-state is not necessarily an asset when it comes to responding to the global needs of the future. Their national horizon is prone to make them a bit of a misfit for global issues.

On the policy side, the worlds of theory and practice are too separated. This is seen in the fact that more often than not, academic experts tend to be of one mind. They are either theoretically or policy trained and inclined. And yet, from an intellectual standpoint, the ability to display and develop hybrid approaches building on theory and practice is intellectually, not to say in policy terms, very fruitful. As in the sciences, where fundamental and applied sciences are now not as separated as they used to be and scientific discoveries as well as societies have benefited from their 'rapprochement', students of social phenomena would benefit by beginning to recognize that the distinction between theory and practice is somewhat artificial and that much can be achieved intellectually by overcoming it.

The institutional challenges are very much in line with the intellectual shortcomings alluded to above. They are threefold. First, they concern the mostly mono-disciplinary organization of universities, with the impact that this has on the teaching, researching, and recruiting dynamics of academia. Second, little is done to factor in the demands that the globalization of the world puts on the methodology and epistemology – philosophy – of the production and dissemination of knowledge. Third, by aligning themselves primarily with Western knowledge, universities endorse and project a form of global provincialism.⁴

Concerning the mono-disciplinary organization of academic knowledge, an example should be enough to illustrate this norm: as a result of specialization, teaching, research and academic careers⁵ are conducted and institutionalized along disciplinary lines, like economics, sociology, anthropology, and others. This explains that in the programs of global affairs or global studies, professors come from single-discipline departments. The benefits of this situation do not eliminate the fact that it is not an optimal one, for it expresses and perpetuates the mono-disciplinary status quo.⁶

The implications are obvious. To begin with, the teaching of multi-disciplinarity happens seldom within courses. Consequently, students are prone to be more exposed than professors to at least some multi-disciplinarity. This circumstance is somewhat odd and paradoxical since, in principle, the faculty's role is in Global Affairs / Global Studies programs to prepare and shepherd students toward multi-disciplinarity. In addition, faculty research tends to be only marginally multi-disciplinary. As professors belong to one field, the incentive for them to venture beyond their comfort zone is low. It is all the more the case considering that publishing in other fields is destined to entail initially

⁴ From a general standpoint, these institutional limitations show that the organization of the life of ideas does not always serve in the best way possible the life of ideas.

⁵ Think about the fact that hiring, promotion and tenure, and other academic incentive and award aspects, are organized around disciplines.

⁶ Obviously, there is much more to say on the pros and cons of the mono-discipline and multi-disciplinary approaches, of approaches focusing on either 'deep' (mono-discipline) or 'wide' (multi-disciplinarity) and their relationships.

a substantial amount of additional work. Furthermore, there are implications for the placement of students enrolled in these types of Global Affairs / Global Studies programs, especially doctoral students. Since multi-disciplinary programs are few and far between in the current landscape of universities, in the United States and beyond, they are clearly at a disadvantage compared to Ph.D. students who have been trained in a more traditional and narrow fashion. In other words, what is supposed to be an edge – being enrolled in a multi-disciplinary Global Affairs / Global Studies program – runs the risk of turning out to be an impediment.

Regarding the philosophy of knowledge, the fact of the matter is that the courses on methodology and epistemology offered in Global Affairs / Global Studies programs tend to be anchored in political science. In this regard, even when these courses are intellectually eclectic and open, and of great quality, they are still limited by the idiosyncrasies of the discipline of political science. This is all the more unfortunate considering that methodology and epistemology courses coming from other disciplines are hardly a possibility. And even more rarely do the Global Affairs / Global Studies programs provide courses exploring the challenges and demands of multi-disciplinarity, let alone what it would take to go beyond methodological and epistemological nationalism (Beck 2006) and have better intellectual tools to think globally about global issues.

As if this did not already present major limitations, there is also the fact that the academic knowledge of reference in Global Studies or Global Affairs, as in general, is by and large Western, if not Anglo-Saxon. This situation, which is reflective of the current geopolitics of knowledge,⁷ is at work in American universities. Indeed, although these are among the most internationalized and pluralistic academic centers in the world both in terms of faculty and curriculum, they have the tendency to display self-centered knowledge. This is also the case in other Western universities (Europe). It is as well at work, and this is perhaps even more problematic, in non-Western academic institutions. More often than not, these borrow from the West and locally import intellectual and cultural traditions that are not necessarily mindful of and helpful to the local needs. Despite the fact that the qualities of such (Western) knowledge cannot be doubted, the situation of monopoly that it amounts to brings about serious issues, particularly at a time when, with the latest developments of globalization, there is a shift of power outside the West and toward Asia.

It is not surprising that the human challenges of the current Global Affairs / Global Studies approaches are connected with this situation. They can be summarized in the following two ways.

The first human difficulty is that faculty involved in Global Affairs and Global Studies are both progressive and conservative. They are progressive in the sense that their involvement in this area is a testimony of their awareness that the world is changing and that this requires from universities intellectual and institutional adaptation and innovation not only to cope with the changes, but also to anticipate and optimize them. However, as frequently they are the products of an academic world of mono-disciplinarity, it can be challenging for them to free themselves from the conservative bent of the past. Being the advocates and agents of change to nurture and midwife multi-disciplinarity and Global Studies while having a foot in and being shaped by the past, is no easy task.

⁷ Intellectual hegemony comes with power hegemony.

Second, intellectual and institutional challenges are prone to translate into an ethical problem for the faculty. On the one hand, professors and scholars involved in Global Affairs / Global Studies know that they are doing the right thing for the preparation of the next generation. But, on the other hand, they also recognize that they themselves and the academic settings in place are not necessarily the best to prepare students for successful careers. In this regard, the unsatisfactory track record for placement of Global Affairs / Global Studies' students, in academia and beyond, should give pause to concerned faculty.

3. A Few Recommendations for the Way Forward

In situations where something is needed (and Global Affairs / Global Studies approaches are certainly needed) and yet encountering challenges (which is also the case for Global Affairs / Global Studies), the first rule and requirement for being able to move forward in a meaningful way is excellence. It is about taking excellence seriously and placing it at the core of the enterprise. While unlikely to generate drastic and full changes overnight, in time and piece by piece, when committed to and followed through with, this posture will put on the right track. If this is the case, how can the quest for excellence be met in intellectual, institutional, and human terms in Global Affairs / Global Studies? A few ideas come to mind. Of course they are no more than a starting point to think about the matter.

Intellectually, for Global Affairs / Global Studies to become a success story, there are at least three conditions.

First, multi-disciplinarity has to be more than a juxtaposition or aggregation of disciplines. In addition to this, it has to be pursued as much as possible through courses and research practicing multi-disciplinarity from within. From the standpoint of teaching, when professors themselves do not have the multi-disciplinary background required, co-teaching can help to achieve this. In this perspective, co-teaching is most successful when on a given theme, it is done by two faculty who, while having different academic backgrounds, are eager to learn from the exchange and dialogue of disciplines. For research, multi-disciplinarity can for instance happen via collective research projects. Both for teaching and research, this presupposes professors willing to go beyond business as usual and work toward stretching themselves intellectually. For example, rather than simply reproducing, in Global Affairs / Global Studies programs, the courses they offer in their home departments, they might tailor or adapt their courses specifically for Global Affairs / Global Studies programs.

Second, more courses of a comparative and global nature must be offered to students. The comparative courses could be across regions, disciplines, cultures and time, and themes. As for the global courses, they could deal with global issues but should also include courses of a methodological and epistemological nature, exploring what it takes to put forward global knowledge.

As for intellectual excellence when it comes to students, there is no other way to achieve this than by being very demanding of them. Multi-disciplinarity and Global Affairs / Global Studies are presenting too many difficulties as fields to ask anything less of students. In the tough and competitive current academic and professional environment, it is not helping students to have them think that they do not have to work extremely hard,

and creatively, to meet the challenges ahead. Far from helping them succeed, allowing them to adopt a complacent attitude is a recipe for failure. This speaks to the institutional dimension of excellence.

On the institutional front, excellence requires at minimum being serious about the seven following elements:

First, clear and rigorous academic systems have to be put in place at all the steps of the learning experience, including recruiting, course teaching, and evaluating students. This encompasses, among other things, casting a wide net for students from around the world, so that the classroom itself becomes one of their training grounds for the study of global affairs.

Second, more emphasis should be placed on foreign languages. It does not make sense to have a Global Affairs / Global Studies program in which foreign languages are not an integral part of the curriculum. Professionals who do not have this type of skill cannot hope to be and go global. Over time, this foreign language requirement could lead to have part of the curriculum being taught in a variety of languages, and the imperative for students to spend part of their studies abroad.

Third, the topics of the Ph.D. dissertation have to reflect a real commitment and relevance to Global Affairs / Global Studies. This presupposes having the proper expertise reflected in the faculty and dissertation committees. Widening and deepening the extent of expertise of the faculty will help to achieve this goal.

Fourth, as only a small percentage of the students will find academic jobs,⁸ it is necessary that Global Affairs / Global Studies' students acquire policy and practical skills of global relevance, at the Master's level and, if possible, at the Ph.D. level. It is also advisable that the acquisition of policy / practical skills is referred to in the name given to the degree (*e.g.*, a track referring to 'global policy'). This will enhance their chances of finding jobs at the international level, in international organizations, private companies, non-governmental organizations, foundations, *etc.*

Fifth, as much as possible, and based on in-house resources and outside the university resources, full-fledged academic positions of Global Affairs / Global Studies (in Comparative Studies, Global Studies, *etc.*) have to be created in order to nurture the development of integrated multi-disciplinarity and global scholarship.

Sixth, the Global Studies Consortium, of which the Rutgers University Division of Global Affairs is a member, has to be better used and made into a real asset, for the students, faculty, and programs that are part of it. Provided that the academic programs in the network are of a similar nature and level (including graduate programs delivering Master's and Ph.D. degrees) and converge on academic objectives, the consortium's activities have to be more than just a yearly conference. It could be called up and institutionalized to offer a rich and pluri-cultural curriculum and lending global experience to students and faculty, with much mobility and integration among the global studies consortium programs. This could take place in a manner reminiscent of the Global Public Policy Network (GPPN), but in ways developing relevant, promising, and specific characteristics, so that it would not duplicate, but rather complement the already successful GPPN.

⁸ Arguably, foreign students studying Global Affairs / Global Studies in the United States are more likely than American students to land academic positions back home, particularly if they come from emerging countries.

Seventh, the support and commitment of the senior management of universities is critical to success. Their importance is proportional to the challenges and potential benefits associated with Global Affairs / Global Studies programs and, more generally, the internationalization of academic institutions. Without such support and commitment, which should be both in terms of strategic vision and resources, progress is prone to be limited and, therefore, cannot be a game-changer. The fact that all the universities occupying leading positions in this area enjoy decisive support from the top is a case in point.

Finally, what about human excellence?

Here, the short answer is that, to a large extent, it is about having the desire and the will to be part of a 'winning proposition' and be proud of what could be and very realistically can be achieved. As we can judge from this short text, there is a long way to go. But it can be done.

Reference

Beck, U. 2006. *Cosmopolitan Vision*. Cambridge: Polity Press.

Teaching Human Rights in Global Perspectives: A Shared View and Experience from the School of Global Studies

Aigul Kulnazarova

The present paper, deliberately written for the upcoming Global Studies Consortium in Moscow (in June 2013), includes selected class materials and shared thoughts on teaching practices and methodology of the course on 'Personality and Human Rights', chosen from among several others, taught at the School of Global Studies of Tama University. The author of this paper has been holding on a faculty position at this school since its commencement in April 2007. Due to the 'newness' of not only the school but also of the very nature of the program (what is Global Studies? – as being the central question of this consortium) in Japan and elsewhere, it is not an easy task to come up with definite theories and/or methodologies of Global Studies education – as no such theory or methodology has as yet been elaborated. And it is not the purpose of this paper, either. This paper is rather intended to bring to discussion some ideas of teaching practices, which are in general diverse and compound, of the academic discipline, designed for the Global Studies curriculum. As part of my teaching and learning philosophy, I believe that the core of any course or discipline, taught within Global Studies program, should combine two important elements: transdisciplinarity and participation. In the given context, the teaching materials, shared in this paper, are separately organized into the following sections: I – 'Some Ideas for Lessons', II – 'Some Ideas for Class Activities', III – 'Some Ideas for Assignments', IV – 'Sample Course Syllabus' and V – 'Study Questions'. It is by no means possible to put together all the materials I have developed for this 15-week taught course (delivered in 45 hours) in a single paper. Instead, I only present a few selected themes, which are followed by theme-related class activities and/or assignments.

Keywords: *human rights teaching, methodology, Global Studies curriculum, participatory learning, transdisciplinary education, human rights syllabus.*

A Brief Introduction to Global Studies Teaching and Learning

With the rapid expansion of globalization, the phenomenon that is now present in all aspects of our life, a 'global perspective' is becoming a required component of higher education, particularly in many of those schools, departments and programs that have launched a brand new field of the so-called 'Global Studies' in all parts of the world.

The School of Global Studies (SGS) at Tama University was established in April 2007 in the suburbs of greater Tokyo area. The SGS offers a 4-year major-based (divided into 'Global Business', 'Hospitality' and 'International Development') liberal arts program that aims at nurturing students into globally-oriented and socially-responsible citizens.

Globalistics and Globalization Studies 2013 272–290

In the 21st century, to be a successful man, it is necessary to have both broad knowledge about many things in different fields, and at the same time deep knowledge and skill in one area. Our three majors are part of an interdisciplinary [multidisciplinary, transdisciplinary] curriculum that helps students to think across disciplines, to move ‘between the scales of the local and global’, and to appreciate the many diverse cultures of the world. The Greek ideal of the ‘well-rounded man’, the one who is able to link information from different areas and disciplines and create new knowledge, is at heart of SGS education (Kulnazarova 2010).

This introductory message, contributed by the present author to the school's brochure mirrors the way and philosophy I undertake in my teaching-learning process and experience. ‘The well-rounded man’ concept of Ancient Greek philosophy and education, I believe, is one that has a direct connection, and is an ideal approach to a new type of education of the 21st century – transdisciplinary – that can, in turn, become very meaningful and pertinent for Global Studies.

At present, the concept of the well-rounded man has been transformed and adjusted to contemporary educational needs and interests in various ways. In the last century, a distinguished Romanian scientist Basarab Nicolescu introduced a newly defined ‘revolutionary’ approach to knowledge and education, called a ‘transdisciplinarity [which] concerns that which is at once between the disciplines, across the disciplines, and beyond any discipline. Its goal is the understanding of the present world, (...) which cannot be accomplished in the framework of disciplinary research’ (Nicolescu 1999). This new form of education – transdisciplinarity – is a life-long process along with its ‘four pillars’, as further expounded by Nicolescu – ‘learning to know’, ‘learning to do’, ‘learning to live together’, and ‘learning to be’. Drawn from Nicolescu's concept, the founding curriculum of Global Studies will seem to be best built on education about human commonality, cultural diversity and multiple perspectives all at once through the application of transdisciplinary learning.

In order to promote such education, it is very important and necessary to shift first from the traditional way of teaching (with its emphasis on teacher-centered classroom), which is yet remaining a big challenge in college education to a more interactive or participatory way of learning (where emphasis is on student-centered classroom). As a good starting point, it is essential, while designing a course syllabus, to keep lecturing load to a reasonable minimum, and incorporate into the syllabus more *participatory methods* for learning, such as role-plays, discussion meetings, group projects, simulation games, and so on. The students, I have been teaching at SGS, have expressed that ‘this way of learning is very stimulating, encouraging, hands-on-oriented, and engaging’. Another considerable aspect of such learning is that it includes *action dimension methodology* that provides students with opportunities to act on their own beliefs and understanding of certain situations and issues discussed. This ‘action dimension’ approach is particularly important for developing and promoting the curriculum, based on global active citizenship idea, which should also be central to Global Studies.

When it comes to teaching about human rights, and not only, it is worthwhile not to center the course's themes on violent actions and abuses. In the beginning, my students often misunderstand the objectives of this course, which are mainly seen by them as

ones emphasizing only human rights abuses, violations, and altogether 'sad stories'. Alternatively, human rights must be taught and learnt from the position of *value system*. This approach will particularly help and lead the students to taking appropriate actions in real life situations, which is often neglected, as practical and essential skill-developing, in many curriculums of liberal arts. The value system dimension is closely linked to Nicolescu's four-pillar concept that also stresses the importance of 'knowing' and 'doing' things around us in a real life setting. Finally, as Reichert rightly acknowledges, '[l]earning about human rights can be compared to learning a language. Without understanding the application of human rights in the everyday world, [students] will only obtain an imperfect knowledge of human rights' (Reichert 2006: xii).

Equally important teaching practice of human rights themes will be the so-called, *the diversity of opinions approach*, which is a different way to encourage students (through a participatory learning) to share, exchange and come at their own positions and opinions that are varied from the instructor's and other participants. In discussion and debate, I often involve this method (e.g., in a debate on 'Cultural Relativism versus Universalism', or 'Universalism versus Asian Values'), which allows to facilitate a very dynamic and lively learning environment in every class.

Thus, the action dimension, the value system and the diversity of opinions teaching practices, involving students' active participation in learning process, will inevitably lead the learners to deeper understanding of the subject-matter and the present world – the heart of transdisciplinary education and, perhaps, should be of global studies. Finally, the multiple (e.g., global-local, general-particular) perspectives of course-related themes ought to be incorporated into any syllabus, designed for global studies. The students always are willingly proactive thinkers, learners and participants in a stimulating and engaging learning environment. The responsibility to promote such environment for mutually collaborative teaching and learning is with the instructor. As O'Brien, Mills and Cohen suggest: 'Preparing your students for the purposeful and effective lifelong learning that these conditions require has strong implications for course content, structure, and the materials and strategies that you use to promote learning. Students will require more carefully thought-out information and well-honed tools' (O'Brien, Mills and Cohen 2008: 3).

The following sections, divided into 'Some Ideas for Lessons', 'Some Ideas for Classroom activities', and 'Some Ideas for Assignments', are basically excerpts from the 'Personality and Human Rights' course's selected units/themes, such as *Historical & Philosophical Foundations of Human Rights/ History and Origins of Human Rights*, *the General Norms of Human Rights/ International Bill of Human Rights*, and *the Specific Norms of Human Rights/ Minorities, Genocide, Racial Discrimination, Women, Children, Refugees, Prisoners*.

Some Ideas for Lessons: Historical & Philosophical Foundations of Human Rights

Theme: History and Origins of Human Rights, Part 1

Description: Part 1 – mini-lecture by instructor; tools: PPT, handouts.

Main points: Human rights roots lie in the traditions of many diverse cultures; therefore, it should not be regarded as only of Western origin and tradition (see Fig. 1).

Human rights are a **POSITIVE VALUE SYSTEM** to which everyone must be entitled. The roots of such system are in human (group) associations, through which people acquire their rights and responsibilities from birth (see Fig. 2).

Human Rights, as an academic discipline and legal system, took the catalyst of World War II to boost the modern concept of universal human rights onto the international stage and into the global conscience.

Fig. 1. HR roots in world (non-western) cultures

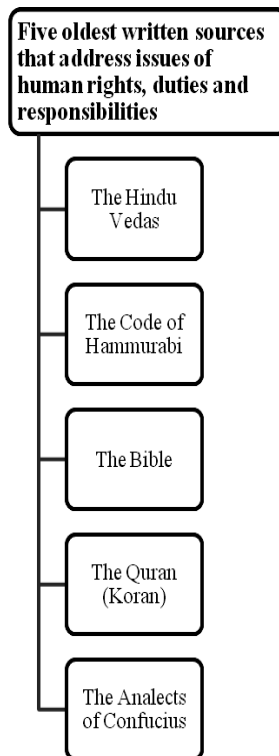
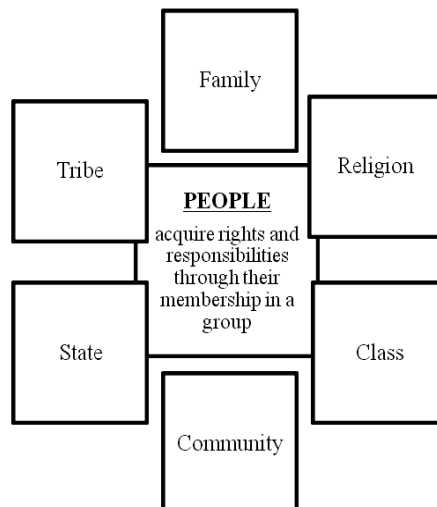


Fig. 2. Roots of human rights as linked to group associations



*Some Ideas for Class Activities: Historical & Philosophical Foundations
of Human Rights*

Theme: History and Origins of Human Rights, Part 2

Description: Part 2 – Class activity leading to the theme; tools: box items, PC (internet).

In addition to cultural traditions and political systems, the contributions of world's most prominent thinkers and activists from Ancient times to modern days, is given a special emphasis under this theme through a class activity (see Box 1).

Box 1: Class Activity: ‘The Role of Individuals in Human Rights Advancement’

A. Purpose:

Through this class activity, the students will understand better the role of personality in human rights advancement and develop a strong assertion that the **INDIVIDUALS** also make a big difference to our societies.

B. Task and procedure:

1. Select one of the individuals in the box items below and do independent research on the chosen personality.
2. Analyze the importance of the individual's contributions to the human rights development by responding to the following questions:
 - What specific human right(s) does the individual support or favor?
 - What is the importance of the individual's contributions to contemporary human rights law?
 - What response did the individual's idea bring out at that period of time?
 - Was there public support for the individual and his ideas?

Plato (427–347 BC)

Plato believed in universal truth and virtue. This idea was later developed into the concept of universalism. His contributions are relevant to human rights in that they are universal, and as such are above the laws of individual states.

Confucius (around 551–479 BC)

Confucius was a philosopher, who lived in Ancient China and taught about government and social values. His teachings are mainly grouped around the themes of family relations, benevolence, love, and respect. His famous sayings include: “Do not do to others what you would not like yourself” and “Do unto others what you wish to do unto yourself”.

John Locke (1632–1704)

According to John Locke, the state should protect individuals from the actions of other that would impinge on their freedoms. Citizens should be empowered to revolt if they felt that the state was abusing its power.

Jean-Jacques Rousseau (1712–1778)

Rousseau came up with the social contract theory that stated that all individuals in a society had entered into a contract to form a civilized society in exchange for the government giving them equality.

<p>Karl Marx (1820–1895) Karl Marx, the founder of communism, saw human rights in that as they were unconnected to the reality of the exploitation of the working class. Marx defined liberalism as something to be gained through government, and not as a freedom from interference. Equality was more important than liberty, especially in the ownership of private property. The right to revolution was regarded as the most fundamental right people possessed.</p>	<p>John Rawls (1921–2002) Rawls presents human rights as one with the greatest degree of individual liberty and equality. The state should distribute everything including benefits equally, unless an unequal distribution would benefit the poorer classes. The origins of human rights are seen by Rawls as something that have been constructed by reasonable people living together in a society. Such view ultimately favors the so-called concept of cultural relativism.</p>
<p>Nelson Mandela (1918 ~) For Mandela, human rights are of a broader idea than just of its limitation to civil and political rights. Instead, he addresses the issues of poverty, deprivation and inequality as part of international standards of human rights. According to Mandela, ‘the best and most effective means of ensuring human rights and to promote the eradication of racism and sexism is to enable the full and unqualified participation of all races, sexes and classes in all aspects of society...’ For him, democracy and human rights are inseparable.</p>	<p>Dalai Lama (1935 ~) The Dalai Lama views compassion, universal humanitarianism, and universal responsibility as the way to build better world and promote peace. He believes that human problems can be solved through the transformation of human attitudes, thus, he calls for a new approach to global problems. He particularly calls for that ‘today we are so interdependent, so closely interconnected with each other, that without a sense of universal responsibility, a feeling of universal brotherhood and sisterhood, and an understanding and belief that we really are part of one big human family, we cannot hope to overcome the dangers to our very existence – let alone bring about peace and happiness’.</p>
<p>Learning outcome: In this class, and particularly through this class activity, the students will learn that human rights are both abstract and practical. First, because human rights hold up the inspiring vision of a free, just and peaceful world and set minimum standards for how both individuals and institutions should treat people (e.g., <i>Confucius Teachings</i>, or <i>The Universal Declaration of Human Rights</i>). Second, because by learning and knowing about human rights, people get empowered to take actions to demand and defend their rights and the rights of other people.</p>	

Some Ideas for Lessons: General Norms of Human Rights

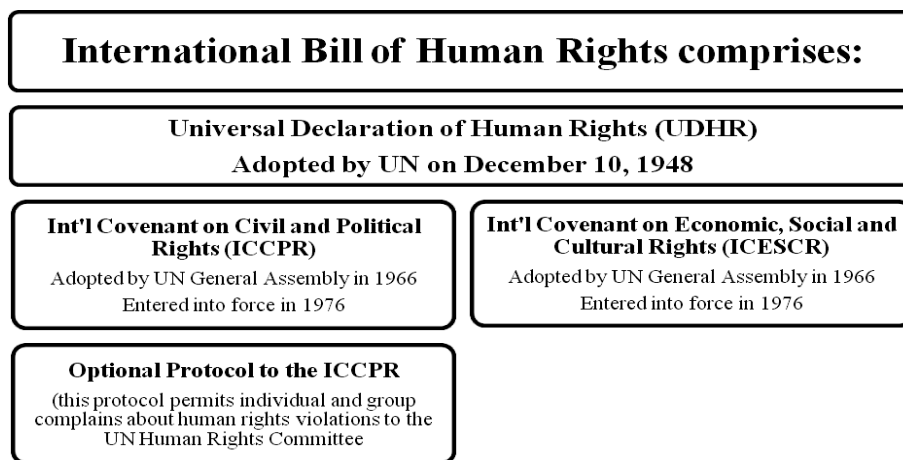
Theme: International Bill of Human Rights, Part 1

Description: Part 1 – Brief introduction by instructor; tools: legal texts, charts, PPT, handouts.

Main points: The Universal Declaration of Human Rights (UDHR) is a part of international bill of human rights (see Fig. 3) that covers the entire set of standard and welfare rights. It was conceived during the Second World War to avoid humanitarian crises, such as the Holocaust, and create a safer and peaceful world. The text of the UDHR was drafted by a large committee of international experts led by Eleanor Roosevelt.

The UDHR was passed by the UN General Assembly on 10th December 1948, which is now celebrated as the International Human Rights Day every year. It aims to establish ‘a common standard of achievement for all peoples and all nations’ to be promoted by ‘teaching and education’ (UDHR, preamble). The UDHR is a legally non-binding treaty. The subsequent treaties, such as the International Covenants of Human Rights of 1966 that form part of the International Bill of Human Rights are, by contrast, legally-binding treaties.

Fig. 3. International Bill of Human Rights



The Universal Declaration of Human Rights (UDHR), although is legally non-binding in nature, is regarded as the most fundamental human rights instrument as it was the first universal legal norm of such kind, adopted by the world governments. The UDHR sets out a list of over two dozen specific human rights that countries should respect and protect. These specific rights are divided into six or more categories, as given in Fig. 4 and Table 1:

Fig. 4. The UDHR: Categories of Rights

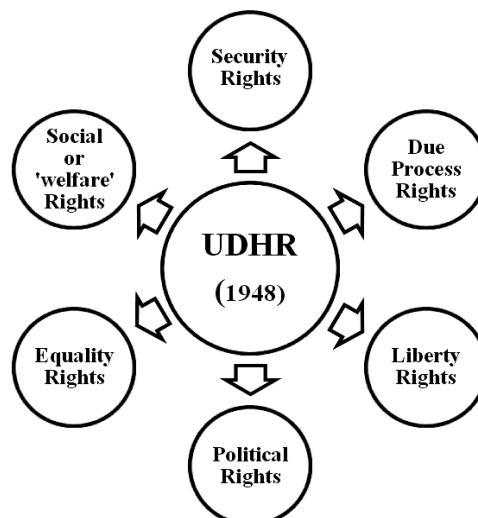


Table 1. The six categories of rights and their descriptions

Political rights	Protect the liberty to participate in politics through actions such as communicating, assembling, protesting, voting and serving in public office
Liberty rights	Protect freedoms in areas such as belief, expression, association, assembly, and movement
Equality rights	Guarantee equal citizenship, equality before the law, and nondiscrimination
Due process rights	Protect against abuses of the legal system such as imprisonment without trial, secret trials, and excessive punishments
Social or ‘welfare’ rights	Require provision of education to all children and protections against severe poverty and starvation
Security rights	Protect people against crimes such as murder, massacre, torture and rape

Some Ideas for Class Activities: International Bill of Human Rights

Theme: International Bill of Human Rights, Part 2
(Class activity leading to the theme)

Box 2: Class Activity: ‘Understanding human rights through a treaty-making’

A. Purpose:

It is a group activity, where 5–6 students will be put together in one group to complete this assignment. The purpose of this activity is to help students learn about the core elements of treaty-making process not only in theory (Part 1 of this theme), but also in practice. In addition to acquiring a new skill of a treaty-making, the students will also become more familiar with decision-making techniques and a shared responsibility.

B. Task and procedure:

In your assigned group, draft a new charter of human rights on a piece of large chart paper (e.g. imagine that a new government is established and it is in an urgent search for human rights charter).

Write on the paper those human rights that the members of each group believe all people need to live in dignity, peace and justice.

Provide and explain with a logical argumentation those foundations that will make your human rights do well in this new country. For example, the possible or necessary foundations may include a healthy economy, fair laws, education for all, and any other item that contributes to human rights growth.

Give a name to your new legal document. Explain your choice.

After completing your writing/drafting of the document, each group should present its human rights charter and defend the reasons for items included together with the charter's foundations.

Each group should match the Charter items with the specific articles of the UDHR and other instruments of the International Bill of Human Rights. Compare and contrast.

Note: A shortened version of the UDHR provisions will be given to each student in class.

Learning outcome:

Through this class activity, the students will be able to defend practically their own opinions stronger by learning about general strategies for such defensive presentation, and thus develop deeper perspectives of human rights. This activity will also help to understand better the subsequent treaties of human rights, as we move to specific norms of human rights. Handouts 1 & 2 will be circulated before the activity.

*Some Ideas for Lessons: Specific Norms of Human Rights***Theme: Specific Norms of Human Rights / Minorities, Genocide, Racial Discrimination, Women, Children, Refugees, Prisoners**

Document #1: Minorities	
Study Questions:	1) What is a minority? Who defines a minority? 2) What are the beneficiaries of minority rights?
<p>A minority is a population group with ethnic, religious and linguistic characteristics differing from the rest of the population, which is non-dominant, numerically smaller than the rest of the population and has the wish to hold on to its separate identity.</p> <p>Int'l human rights law has developed a firm set of rules and mechanisms that protect minorities. A system of minority protection is based on two basic principles: (1) the prohibition of discrimination, and (2) measures designed to protect and promote the separate identity of the minority groups.</p> <p><i>Issue:</i> '... International law addresses three related problems that bedevil political and legal discourse in the field. The first is the problem of how to reconcile the demand for the provision of special rights for members of minority groups with respect to the rights of others, that is, with the principles of nondiscrimination and equality under the law. The second is how to reconcile special arrangements for minority groups with respect to the individual human rights of members of the minority. The third is how to reconcile such arrangements with respect to the rights of minorities within the minority.'</p> <p><i>Article 27 of the International Covenant on Civil and Political Rights</i> (this article is the most basic international law provision on minority rights)</p> <p style="padding-left: 40px;">In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language.</p> <p><i>Other human rights law provisions that guarantee minorities' rights:</i> The Universal Declaration of Human Rights (UDHR): Articles 1, 2, 7, & 23; The International Covenant on Economic, Social and Cultural Rights (ICESCR): Articles 2, 7, & 13; The International Covenant on Political and Civil Rights (ICCPR): Articles 2, 14, 24, 26, & 27; The Convention on the Prevention and Punishment of the Crime of Genocide: Articles 1 & 2; The Convention on the Elimination of All Forms of Racial Discrimination (ICEDR): Articles 2, 5, & 6; The Convention on the Rights of the Child (ICRC): Articles 2, 17, 28, 29 & 30; The Convention Against Discrimination in Education: Articles 3 & 5; The ILO Indigenous and Tribal Peoples Convention (#169): Articles 2, 3, 6, & 7.</p>	
<p>Additional sources:</p> <ol style="list-style-type: none"> 1. UN Declaration on the Rights of Persons Belonging to National or Ethnic, Religious or Linguistic Minorities (1992). 2. UN Draft Declaration on the Rights of Indigenous Peoples (1994). 	

Document #2: Genocide	
Study Questions:	<p>What are the two elements of crime according to the <i>Convention on the Prevention and Punishment of Genocide</i>, which allow qualifying the crime as genocide?</p> <p>What criminal acts form genocide?</p>
<p>The international legal definition of the crime of genocide is found in Article 2 and Article 3 of the 1948 <i>Convention on the Prevention and Punishment of Genocide</i>.</p> <p><i>Article 2</i> describes two elements of the crime of genocide as such:</p> <ol style="list-style-type: none"> 1) the <i>mental element</i>, meaning the ‘intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such’ and, 2) the <i>physical element</i> which includes five acts described in sections a, b, c, d and e. A crime must include <i>both elements</i> to be called ‘genocide’. <p><i>Article 3</i> describes five punishable forms of the crime of genocide: genocide; conspiracy, incitement, attempt and complicity.</p> <p><i>Excerpt from the Convention on the Prevention and Punishment of Genocide</i></p> <p><i>Article 2:</i> In the present Convention, genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:</p> <ol style="list-style-type: none"> a) Killing members of the group; b) Causing serious bodily or mental harm to members of the group; c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; d) Imposing measures intended to prevent births within the group; e) Forcibly transferring children of the group to another group. <p><i>Article 3:</i> The following acts shall be punishable:</p> <ol style="list-style-type: none"> a) Genocide; b) Conspiracy to commit genocide; c) Direct and public incitement to commit genocide; d) Attempt to commit genocide; e) Complicity in genocide. <p>The law protects four groups – national, ethnical, racial or religious groups.</p> <ol style="list-style-type: none"> 1. A national group means a set of individuals whose identity is defined by a common country of nationality or national origin. 2. An ethnical group is a set of individuals whose identity is defined by common cultural traditions, language or heritage. 3. A racial group means a set of individuals whose identity is defined by physical characteristics. 4. A religious group is a set of individuals whose identity is defined by common religious creeds, beliefs, doctrines, practices, or rituals. 	
<p>Source:</p> <ol style="list-style-type: none"> 1. Convention on the Prevention and Punishment of Genocide (Adopted by Resolution 260 (III) A of the U.N. General Assembly on 9 December 1948. Entry into force: 12 January 1951.) 	

Document #3: Racial Discrimination	
Study Questions:	<ol style="list-style-type: none"> 1. What does the word racism mean to you? What behaviors and attitudes does a racist person display? 2. What are the signs of racism? Discuss them after reading the enclosed article by R. Kumar. 3. What is a hate crime? Define and contrast it with racial prejudice.
<p>Racism is regarded as the most destructive form of the violation of human dignity and rights. In 1978, the UN, through its branch known as the UN Educational, Scientific and Cultural Organization (UNESCO), addressed the problems associated with racism:</p> <p style="padding-left: 40px;">All human groups, whatever their composition or ethnic origin, contribute according to their own genius to the progress of the civilizations and cultures. However, racism, racial discrimination, colonialism, and apartheid continue to afflict the world in ever-changing forms, a result of government and administrative practices contrary to the principles of human rights. Injustice and contempt for human beings leads to exclusion, humiliation, and exploitation, or to the forced assimilation, of the members of disadvantaged groups (UN 1978: Preamble).</p> <p>Specific provisions to fight racism include recognition of the following:</p> <p style="padding-left: 40px;">All human beings belong to a single species and are descended from a common stock. They are born equal in dignity and rights and all form an integral part of humanity (UN 1978, Article 1, para. 1).</p> <p style="padding-left: 40px;">All individuals and groups have the right to be different, to consider themselves as different, and to be regarded as such. However, the diversity of lifestyles and the right to be different may not, in any circumstances, serve as a pretext for racial prejudice; they may not justify any discriminatory practice, nor provide a ground for the policy of apartheid, which is the extreme form of racism (Article 1, para. 2).</p> <p>The purpose of these provisions is to make the point that no race or group may elevate itself over another.</p> <p>Japan has not signed and ratified the ICERD yet. But, Japan made an accession to the ICERD on 15 December 1995.</p>	
<p>Sources:</p> <ol style="list-style-type: none"> 1. International Convention on the Elimination of All Forms of Racial Discrimination (Adopted by General Assembly Resolution 2106 (XX) of 21 December 1965). 2. International Convention on the Suppression and Punishment of the Crime of Apartheid (Adopted & opened for signature, ratification by General Assembly resolution 3068 (XXVIII) of 30.11.1973. Entry into force: 18 July 1976, in accordance with article XV). 3. Declaration on Race and Racial Prejudice (Adopted and proclaimed by the General Conference of the United Nations Educational, Scientific and Cultural Organization at its twentieth session, on 27 November 1978). 	

Document #4: Women	
Study Questions:	<ol style="list-style-type: none"> 1. Discuss the meaning of the sentence ‘Women's rights are human rights’. What do you feel this statement means? 2. List at least five different situations in which you feel the status or circumstances of women differ from that of men within your society. Do these situations necessarily mean that women are discriminated against? 3. What is gender discrimination? How does the CEDAW define it?
<p>In societies around the world, female status generally is viewed as inferior and subordinate to male status (Bunch 1991). Societies have modeled their gender-role expectations on these assumptions of the ‘natural order’ of humankind. Historic social structures reflect a subordination of females to males. This subordination occurs within</p> <ul style="list-style-type: none"> – the organization and conduct of warfare; – the hierarchical ordering of influential religious institutions; – attribution of political power; – authority of the judiciary and; – influences that shape the content of the law (Bunch 1991). <p>The most prominent human rights document concerning the human rights of women is the <i>Int'l Convention on the Elimination of All Forms of Discrimination Against Women</i> (CEDAW). This convention became effective in September 1981.</p> <p>Provisions of CEDAW</p> <p><i>Article 1, para xx :</i></p> <p style="padding-left: 40px;">Any distinction, exclusion, or restriction made on the basis of sex that has the effect or purpose of impairing or nullifying the recognition, enjoyment, or exercise by women irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil, or any other field.</p> <p>The primary purpose of CEDAW is to guarantee that women's human rights are equally treated as those of men. The principal concept of human rights aims to avoid favoring one group over another.</p>	
<p>Sources:</p> <ol style="list-style-type: none"> 1. Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) (Adopted by General Assembly Resolution 34/180 of 18 December 1979). Japan has signed the CEDAW on 17 July 1980, and ratified it on 25 June 1985. 2. Optional protocol to the Convention on the Elimination of Discrimination against Women (Adopted by General Assembly Resolution 54/4 of 15 October 1999). Japan has not signed it. 3. Declaration on the Elimination of Violence against Women (Adopted by General Assembly Resolution 48/104 of 20 December 1993). 4. Beijing Declaration (Report of the Fourth World Conference on Women, held in Beijing 4–15 September 1995, United Nations, New York 1995). 	

Document #5: Children	
Study Questions:	<ol style="list-style-type: none"> 1. What are your feelings about children having rights? 2. What do you know about the UN Convention on the Rights of the Child?
<p>Children, like women, occupy a special role within human rights protections. Children need special protection because of their fragile state of development. Children are readily susceptible to abuse and neglect and often do not have means to defend themselves against these wrongs. Recognizing that children need special protection, the UN adopted the Convention on the Rights of the Child (CRC) in 1989. This convention specifies basic rights that every child should enjoy.</p> <p style="text-align: center;"><i>Who Is a Child?</i></p> <p>Under the convention, a child ‘means every human being below the age of eighteen years unless, under the law applicable to the child, majority is attained earlier’ (Article 1). This definition of <i>child</i> allows states to define a child as having reached adulthood before the age of 18 years if, in particular instance, the law allows this earlier age of adulthood (Reichert 2006).</p> <p style="text-align: center;"><i>The rights of the child that are guaranteed by the CRC</i></p> <ul style="list-style-type: none"> ▪ States may not discriminate against a child on the basis of ‘race, color, sex, language, religion, political or other opinion, national, ethnic, or social origin, property, disability, birth, or other social status’ (Article 2, para.1); ▪ In all actions concerning children, the best interests of the child shall be a primary consideration (Article 3, para. 1); ▪ Parents and guardians have primary responsibility for the upbringing of their children but are expected to carry out those responsibilities in a manner consistent with the evolving capacities of the child (Article 5); ▪ A child has the right to a name, nationality, and, as far as possible, to know and be cared for by his or her parents (Article 7, para. 1); ▪ A child has the right to maintain contact with both parents unless that contact is contrary to the child's best interest (Article 10, para. 2); ▪ A child capable of forming his or her own views has the right to express those views with due weight given to the age and maturity of the child (Article 12, para. 1); ▪ A child has the right to ‘freedom of expression’, including the freedom to ‘seek, receive, and impart information and ideas of all kinds’ (Article 13, para. 1). ▪ A child has the right to be free from arbitrary or unlawful interference with his or her privacy, family home, or correspondence (Article 16); ▪ Neither capital punishment nor life imprisonment without possibility of release shall be imposed for an offense committed by persons younger than 18 years of age (Article 37[a]). <p>Sources:</p> <ol style="list-style-type: none"> 1. Convention on the Rights of the Child (Adopted by General Assembly Resolution 44/25 of 20 November 1989) 2. Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict (Adopted by General Assembly Resolution A/RES/54/263 of 25 May 2000) 3. Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography (Adopted by General Assembly Resolution A/RES/54/263 of 25 May 2000). 	

Document #6: Refugees	
Study Questions:	<ol style="list-style-type: none"> 1. Who is a refugee? 2. What are the human rights of refugees?
<p>Most of the world governments have now signed the 1951 UN Convention relating to the Status of Refugees (known as the Refugee Convention). This Convention includes an internationally agreed definition of who is a refugee.</p> <p>A refugee is a person who is outside his/her country of origin and genuinely risks serious human rights abuses because of who he/she is or what he/she believes. He/she cannot or will not return because his/her government cannot or will not protect him/her.</p> <p>The Human Rights of Refugees include the following indivisible, interdependent and interrelated human rights:</p> <ul style="list-style-type: none"> ▪ The human right to seek and enjoy asylum from persecution. ▪ The human right not to be forcibly returned to the country he or she is fleeing if such a return would pose a threat to the life, security, or freedom of the refugee. ▪ The human right to freedom of movement, freedom to choose his or her residence, freedom to leave any country, including his or her own, and to return to his or her country. ▪ The human right to freedom from discrimination based on race, color, gender, language, religion, nationality, ethnicity, or any other status. ▪ The human right to equal protection of the law, equal access to the courts, and freedom from arbitrary or prolonged detention. ▪ The human right to a nationality. ▪ The human right to life. ▪ The human right to protection from torture or ill-treatment. ▪ The human right to freedom from genocide and 'ethnic cleansing'. ▪ The human right to an adequate standard of living, including adequate food, shelter and clothing. ▪ The human right to work and to basic labor protections. ▪ The human right to the highest possible standard of health and to access to health care. ▪ The human right to live in a healthy and safe environment. ▪ The human right to participation in decision-making which affects a refugee's life, family, and community. <p>The basic provisions of human rights law that guarantee the Human Rights of Refugees:</p> <p>The UDHR: Articles 9, 13, 14, 15; The Refugee Convention: Articles 3, 4, 21, 22, 23, 24, 26, 33, 34; The Torture Convention: Article 3; The Geneva Convention Relative to the protection of Civilian persons in Time of War: Article 44; The Convention relating to the Status of Stateless Persons: Articles 4, 16, 17, 21, 22, 23, 24, 26, 31; The Convention on the Reduction of Statelessness: Articles 1, 4, 8, 9; The ICCPR: Articles 2, 12, 13, 14, 26; The ICESCR: Articles 11, 12, 13; The ICERD: Articles 2, 5, 6; The CEDAW: Article 9; The ICRC: Articles 7, 22.</p>	
<p><i>Source:</i> Convention relating to the Status of Refugees (Adopted on 28 July 1951).</p>	

Document #7: Prisoners	
Study Questions:	<ol style="list-style-type: none"> 1. Who is a prisoner? 2. What are the human rights of prisoners?
<p>Prisoners are people like everyone else and they are entitled to enjoy their human rights. Prisoners can make complaints to Human Rights and Equal Opportunities Commission (HREOC) about human rights breaches and discrimination that happens in jail.</p> <p>One right of special importance to prisoners is the <i>right to be treated with humanity, dignity and respect while in detention</i>. This human right is set out in the International Covenant on Civil and Political Rights (articles 7 and 10), the Convention on the Rights of the Child (article 37) and the Convention Against Torture.</p> <p>The principal international human rights documents clearly protect the human rights of prisoners. The ICCPR and the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (the Torture Convention) both prohibit torture and cruel, inhuman, or degrading treatment or punishment, without exception or derogation. Article 10 of the ICCPR, in addition, mandates that ‘[a]ll persons deprived of their liberty shall be treated with humanity and with respect for the inherent dignity of the human person’. It also requires that ‘the reform and social re-adaptation of prisoners’ be an ‘essential aim’ of imprisonment.</p> <p>The most comprehensive guidelines are the United Nations Standard Minimum Rules for the Treatment of Prisoners (known as the Standard Minimum Rules), adopted by the U.N. Economic and Social Council in 1957. It should be noted that although the Standard Minimum Rules are not a treaty, they constitute an authoritative guide to binding treaty standards.</p> <p>Other documents relevant to an evaluation of prison conditions include the Body of Principles for the Protection of All Persons Under Any Form of Detention or Imprisonment, the Basic Principles for the Treatment of Prisoners, and, with regard to juvenile prisoners, the United Nations Standard Minimum Rules for the Administration of Juvenile Justice (known as the ‘Beijing Rules’). Like the SMRs, these instruments are binding on governments to the extent that the norms set out in them explicate the broader standards contained in human rights treaties.</p>	
<p>Sources:</p> <ol style="list-style-type: none"> 1. Geneva Convention relative to the Treatment of Prisoners of War (Adopted on 12 August 1949). 2. Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment (Adopted by General Assembly Resolution 39/46 of 10 December 1984) 3. Second Optional Protocol to the International Covenant on Civil and Political Rights, Aiming at the Abolition of the Death Penalty (Adopted by General Assembly Resolution 44/128 of 15 December 1989). 4. Basic Principles for the Treatment of Prisoners (Adopted & proclaimed by General Assembly Resolution 45/111 of 14 December 1990). 5. United Nations Rules for the Protection of Juveniles Deprived of Their Liberty (Adopted by General Assembly Resolution 45/113 of 14 December 1990). 6. Body of Principles for the Protection of all Persons under Any Form of Detention or Imprisonment (Adopted by General Assembly Resolution 43/173 of 9 December 1988). 	

*Some Ideas for Assignments: Excerpts from weekly assignments***Assignment #1: Short Presentation (Due date: xxxxx)**

- A. Choose one of the writings of pre-modern and contemporary thinkers from the list below.
- B. Do research on the selected historical figure (biography: when and where did he/she live, what did he/she write about).
- C. Give a short presentation (10–15 min.) in class with an emphasis on issues concerning human rights, discussed/advocated by the chosen author.

Patrick Hayden: The Philosophy of Human Rights (Course reserve shelve, SGS library)

1. Plato and his *'The Republic'*, pp. 13–23.
2. Aristotle and his *'Politics'*, pp. 24–33.
3. Cicero and his *'On the Laws'*, pp. 34–42.
4. St. Thomas Aquinas and his *'Summa Theologica'*, pp. 43–47.
5. Hugo Grotius and his *'The Right of War and Peace'*, pp. 49–54.
6. Thomas Hobbes and his *'Leviathan'*, pp. 58–70.
7. John Locke and his *'The Second Treatise of Government'*, pp. 71–79.
8. Jean-Jacques Rousseau and his *'The Social Contract'*, pp. 80–87.
9. Edmund Burke and his *'Reflections on the Revolution in France'*, pp. 88–94.
10. Thomas Paine and his *'The Rights of Man'*, pp. 95–100.
11. Mary Wollstonecraft and her *'A Vindication of the Rights of Woman'*, pp. 101–108.
12. Immanuel Kant and his *'The Principles of Political Right'*, pp. 109–117.
13. Jeremy Bentham and his *'Anarchical Fallacies: A Critical Examination of the Declaration of Rights'*, pp. 118–125.
14. Karl Marx and his *'On the Jewish Question'*, pp. 126–135.
15. John Stuart Mill and his *'Utilitarianism'*, pp. 136–147.

Assignment #2: Human Rights through Cartoon Analysis (Due date: xxxxx)

1. Create your own cartoons (at least two), focusing on current human rights issues (learnt from media), one in global, and the other in local context.
2. Present your cartoons in class and explain your perspectives.

Assignment #3: Argument Paper (Due date: xxxxx)

1. Universalism versus Cultural Relativism: Each student should write a brief (12 pages) argument paper on the question whether human rights are universal or culturally relative?
2. Class Discussion based on the students' argument papers. *Handout with detailed writing, argument and presentation guidelines will be provided beforehand.*

Assignment #4: Case Studies (Due date: xxxxx)

1. Read carefully each case, handed out in the class
2. Present the case to others in class and discuss.

**Assignment #5: Analyzing Human Rights Through a Film:
'In the Name of the Father'**

Purpose:	To develop skills in analyzing a legal fact situation (depicted in a feature film) through a human rights prism.
'In the Name of the Father'	Based on the Autobiography 'Proved Innocent' by Gerry Conlon
Movie Director	Jim Sheridan

Cast	Daniel Day Lewis (Gerry Conlon), Emma Thomson (Gareth Pierce), Pete Postlethwaite (Giuseppe Conlon), Corin Redgrave (Robert Dixon)
Main site	Belfast and British prison 1974, late 1980s
Main characters	Gerry Conlon, Giuseppe Conlon, Gareth Pierce, Robert Dixon, Paul Hill
Summary	Gerry Conlon is a young man living in Belfast in the early 1970s. Getting into trouble with the IRA, he heads for a new life in London. Soon after arriving, the IRA blow up a pub in Guildford and Gerry, his friend Paul Hill, and several others are accused of the bombing, found guilty and imprisoned. The film charts Gerry's interrogation and subsequent efforts to clear his name with the help of lawyer, Gareth Pearce. The film also explores the relationship in prison between Gerry and his father Giuseppe. Pearce succeeds in proving Conlon's innocence and bringing into question the integrity of the police and the British system of justice.

Task and procedure:

Part I – Making a Human Rights Analysis (1 page)

1. After watching the movie, describe what rights were denied, demanded, or respected.

Possible rights might include the following:

- Right to be equal before the law
- Right to be free from torture
- Right to free speech
- Right to be free of cruel and unusual punishment
- Right to liberty and security of person
- Right to a fair trial
- Right to due process
- Human dignity

In addition to describing rights denied, demanded or respected in *The Name of the Father*, please emphasize on what human rights issues are relevant to the case, depicted in the movie? Cite specific provisions within the Human Rights instruments, including the UDHR, ICCPR, ICSECR, the Torture Convention, etc. (e.g., Handout 'Specific Norms of Human Rights'/Document #7)

Part II – Writing an Essay on Human Rights (2–3 pages)

After compiling data for your project, draw your conclusions in a written essay about one of the following:

1. What interventions are appropriate in this given legal fact situation? How do they connect to relevant human rights issues?
2. If you were a lawyer assigned to this case, how would you assess the situation? Refer to human rights provisions to explain your assessment.
3. Citizenship focus: (a) The role of media in effecting public opinion;
(b) The criminal and civil justice systems' operational mechanisms;
(c) The significance of individual freedoms, such as free speech, free press, freedom to express and share opinion, and so on.

Sample Syllabus

Course Title: Personality and Human Rights

Instructor: Kulnazarova, Aigul

Division	General	Semester	Fall
Grade	1+	Credits	4
Office	208	E-mail	Instructor's e-mail

■ Course Goals

Course objectives include:

1. To give clear understanding of the scope, nature and development of Human Rights Law;
2. To familiarize students with international human rights instruments – essentially based on the right to know our rights;
3. To acquaint students with the modalities for the implementation of Human Rights at national and international levels and to understand the shortcomings, deficiencies and the problems faced in implementation;
4. To elaborate the actual field difficulties faced in the implementation and enjoyment of human rights;
5. To analyze the future shape and direction of human rights policy in Japan and other countries.

■ Course Description

This course will examine the relationship between the concepts of human rights and personal identity. It will study the historical and theoretical development of the concept of human rights, which provide a framework for the significant consideration of human rights as a pivotal concept in the 21st century. As a legal discipline, the course will introduce the students to the established and developed legal rules, procedures, and enforcement mechanisms pertaining to the protection of international human rights law.

■ Textbooks

Textbook on Human Rights by Rhona Smith, 4th ed.

Blackstone's International Human Rights Documents, by Sandy Gandhi, 7th ed.

■ Course Readings

List of weekly readings will be given in the class

■ Method of Evaluation

Attendance: 10 %

Participation: 20 % (Role play: 10 %, Presentation: 10 %)

Field Trip, Report and Presentation (Minority and Indigenous Peoples' Rights): 20 %

Midterm Assessment by Movie Analysis, Report and Presentation ('Prisoners' Rights'): 20 %

Final Term Project: 'Human Rights Speech': 30 %

■ Additional Information

The teaching methodology of this course will combine both practical and theoretical approaches. In order to develop skills and attitudes, as well as knowledge in students about human rights, the use of participatory (interactive) methodology will be involved. This methodology is particularly appropriate when dealing with human rights issues, where there are many different points of view on an issue, rather than one 'correct' answer. Teaching methods

will include lectures, seminars, group discussion, brainstorming, questioning, independent projects, and UN or NGO field trip and briefing.

■ Weekly course schedule

The weekly schedule by themes, class activities and assignments is usually modified every year and circulated in the class in hard copy to each student registered for the course, and is also available on the T-next online school system prior to the beginning of the semester.

References

- Barkley, E. F., Cross, K. P., and Major, C. H. 2005.** *Collaborative Learning Techniques: A Handbook for College Faculty*. San Fransico: Jossey-Bass.
- Barr, R. B., and Tagg, J. 1995.** From Teaching to Learning: A New Paradigm for Undergraduate Education. *Change* 27(6): 12–25.
- Bunch, C. 1991.** Women's Rights as Human Rights. In Bunch, C., and Carrillo, R. (eds.), *Gender Violence: A Development and Human Rights Issue* (pp. 3–18). Dublin: Attic Press.
- Ghandhi, S. 2010. (Ed.).** *Blackstone's International Human Rights Documents*, 7th ed. Oxford: Oxford University Press.
- Kulnazarova, A. 2010.** *Tama University School of Global Studies*. Tokai Press.
- Nicolescu, B. 1999.** *Transdisciplinary Evolution of Learning*. URL: <http://perso.club-internet.fr/nicol/ciret>
- O'Brien, J. G., Millis, B. J., and Cohen, M. W. 2008.** *The Course Syllabus: A Learning-Centered Approach*, 2nd ed. San Francisco, CA: John Wiley & Sons.
- Reichert, E. 2006.** *Understanding Human Rights: An Exercise Book*. SAGE Publications.
- Shiman, D. A. 1999.** *Teaching Human Rights*. CTIR Publications.

Striving for Sustainable Global Democracy Through a Group Decision-Making Process: A Critical Review of an Online Course to Model Transformative Praxis¹

*Kenneth Bausch, Tom Flanagan, Janet McIntyre-Mills,
Tony Made, Kelly Mackenzie, Charles Morse,
and Gayle Underwood*

'Sustainability is not simply about changing practices but more centrally about agreeing to change practices together' (Flanagan et al. 2011). To achieve such ends, groups need to improve processes for making complex decisions together. The challenge faced recently in Copenhagen (including a large number of diverse participants in policy discussions) indicates the need for new ways to improve discursive democracy. Poverty and climate change are 'wicked' problems (Rittel and Webber 1984) that comprise many diverse interrelated variables and that have a strong value and emotional dimension. The shortcomings of many approaches to these problems is that they are expert driven, do not involve the public in decision making, and have a narrow focus on technical issues. They do not consider issues in terms of their interrelated complexity with human cultural issues and values. This paper addresses the transboundary conundrum of how to address complex social and environmental challenges while engaging with people's diverse values and emotions. The online course developed by us can be a part of programs in Global Studies.

Keywords: *Global Studies, complex decision making, diversity, emotions, sustainability, values, transformation, democracy.*

Introduction and Background

This is a pilot project of the Institute for 21st Century Agoras. Eight Australians and Americans participated in an online for-credit course in Sustainability at the Flinders University in Adelaide, South Australia on March, 21 – April, 10, 2010. The pilot course sought to identify the most influential elements of the global Problematique (mess) and to accomplish this in four weeks. The podcast and links to the relevant websites explain how this was achieved and give details of forthcoming participatory action learning programs that extend the initiative. This paper comments on the strengths and challenges identified in an initial application of collaborative and systems thinking skills approaches through an online course for students studying public policy and management.

To achieve a sustainable future we need to rethink our rights and responsibilities in terms of an expanded sense of space and time. Little research on ways to scale up both

¹ This article was first published in *Journal of Globalization Studies*, Vol. 3, Num. 1, 2012, pp. 135–151.

democracy and governance has been undertaken internationally (Alport and Macintyre 2008; McIntyre-Mills 2006, 2010a, 2010b). The problem is that the social contract within the nation state does not go far enough to address the big challenges of the day, namely poverty, pollution, climate change and conflict over scarce resources (Nussbaum 2006; Faist 2009; Hulme 2009; McIntyre-Mills 2008a, 2008b; McIntyre-Mills, De Vries, and Deakin 2008; McIntyre-Mills and De Vries 2011).

The difficulties in getting populations to enact policies that science regards as necessary are exemplified in Australia, which faces the challenge of passing the carbon tax. The current labour/green/independent coalition government is beset by the unions, business and Tony Abbot's Liberal opposition who are gaining ground because the voters in Australia fear the rising cost of living more than they fear the consequences of climate change. This essay seeks to address two questions:

- Why do voters think in the short to medium term and not the long term?
- Why do politicians pitch their policies to respond to the short and medium term?

The second question is easier to answer – it is a function of the design of the system of democracy and governance. The first question is arguably a result of the way human beings are encouraged to think. This is as much a product of nature as it is a product of nurture. Scientists and the intelligentsia recognize that thinking about strategies for the survival of our own generation makes evolutionary sense. But they argue that survival and live-ability do not have to be achieved at the expense of long term sustainability. Their rational arguments, however, have not convinced lots of people.

This paper makes the case that people do not take well to lectures telling them what to do. Their emotions and sense of independence play a vital role in the way people think about themselves, others and the environment (Bausch 2010; McIntyre-Mills and De Vries 2011). This paper presents an online experiment that enlists ordinary people to define the global challenges, and their messy interconnections, to identify the root causes of the problematique, and to supply effective actions to address those root causes.

The 49 interconnected and wicked Continuous Critical Problems (CCPs) that lie at the basis of this study were presented to the inaugural meeting of the Club of Rome in 1970. Hasan Ozbekhan, their author envisioned a gradually evolving architecture that would involve a large number of diverse people in the formulation of strategy and corrective action.

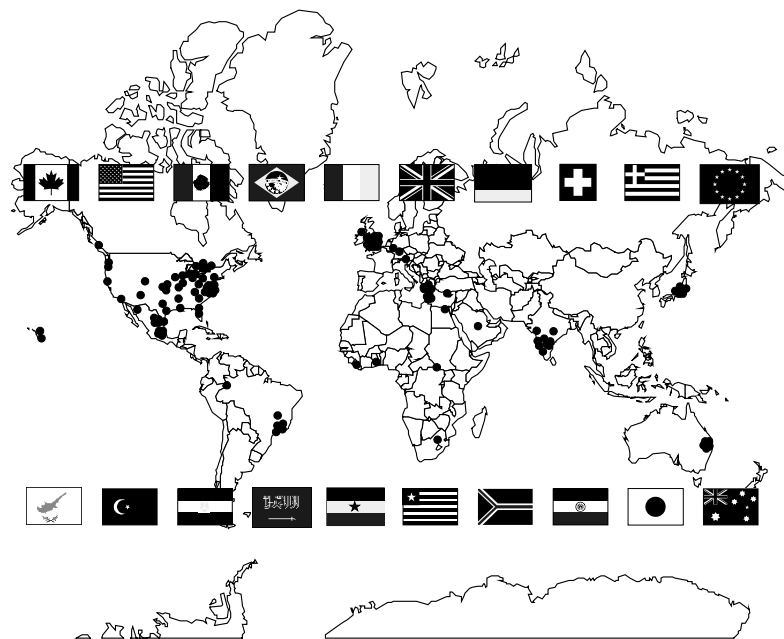
At that time, a methodology sufficient for addressing this complex of wicked problems, the problematique, did not exist. As a result, the Club shunted these CCPs aside and went with an MIT proposal which addressed a smaller number of critical problems and employed the expert-driven System Dynamics methodology. The result was the publication of *The Limits to Growth* (Meadows, Meadows, and Randers 1972) which created a sensation in the 1970s and has sold many millions of copies and been translated into 15 languages.

The influence of this breakthrough work continues to ramify throughout culture especially in the climate change debate. The overall scientific advances in understanding the physics of our environmental situation have been phenomenal. The advances in cultural understanding and acceptance, however, are marginal.

In the past 40 years a methodology for involving ordinary people as designers in very complex and contentious situations has been developed. Structured Dialogic Design (SDD) is the culmination of efforts by John Warfield, Alexander Christakis, and their

associates. It was originally formulated as Interactive Management (IM) and has been refined and simplified over the past 35 years. It has been effectively practiced around the world as depicted on the following map.

Fig. 1. Validation through worldwide use



Source: KMC Dye, CWA Ltd.

In contemporary life, we have created inflated visions of lifestyles through the media that represent how life ought to be lived and now we confuse these visions with reality. News is edited, spun, and presented to us as the real story. Governments make decisions that simulate taking responsible caretaking decisions. The spin then becomes a form of hyper reality. Commodification of people and the environment becomes the reality which now confronts us in the form of problems in which we are complicit – because we have created them. Image becomes more important than anything else. Our identity is shaped by image. How do we find our way out of the matrix? We might find out our way if we realized that it is a simulation of which we are part in which we mistakenly commodify everything.

The problem is that we now identify more with fiction or what Baudrillard called hyper reality than with reality. Our mirror neurons ‘fire in sympathy’ with hyper real characters on the news and in the media. The challenge is to re-educate ourselves to live sustainably (McIntyre-Mills 2010a, 2010b). Unfortunately, the coil of complicity has spiraled to a point where we need to face up to the problems we have created. Ways forward out of this contrived way of life pose a challenge – but needs to be addressed if we are to survive.

Enabling people to think about their thinking and to consider the emotional dimensions of their choices is vital. People spend less and less time exploring complex ideas. Instead they consume the short sound bite – of news or the easy to digest pop culture on TV.

Reading books and thinking about concepts – imagining the symbols and thinking through complex narratives – is lost when children give up reading. Hyper reality is encouraged through computer games when the game world becomes more real than the real. For these reasons, we need new kinds of media engagement; and gaming needs to retrain the mind to work with complexity. The books: *A Democratic Approach to Sustainable Futures* (Flanagan and Bausch 2011) and *Identity, and Democracy and Sustainability* (McIntyre-Mills and De Vries 2011) strive to address this gap by enabling people to work with complexity in order to re-build the connections across people and the environment. These connections have been forgotten in the hype of hyper reality.

The action learning described in this paper addresses critical problems such as:

- illiteracy;
- bureaucracy;
- the unknown effects of affluence;
- alienation of youth;
- obsolete law enforcement policies;
- inadequate participation of people at large in public decisions;
- the growing use of distorted information; and
- the growing irrelevance of traditional values and continuing failure to evolve new value systems.

All of these concerns and others are vital in a community's decision-making. Structured Dialogic Design enables ordinary people to make sense communally of such baffling complexity. SDD enables members of a community to act together, and enables them to modify or even transform existing ways of life should it become necessary to do so... (Hulme 2009: 163).

The Club of Rome research on the quality of life and livability of cities stressed that cities will require an ever increasing resources. This is discussed in *Beyond the Limits* (Meadows and Randers 1992) and (Christakis 2006). A case is made elsewhere (McIntyre-Mills 2008a, 2008b, 2010a) that participation of both majorities and minorities is vital for rational decisions that will affect both in this generation and the next.

Method

An online course was designed and tested linking students in the US and in Australia in 2010. Students engaged in a re-enactment of deliberations based on Hasan Ozbekhan's *Predicament of Mankind* (Ozbekhan 1970), which was constructed originally under assignment from the founders of the Club of Rome in 1970. This re-enactment included:

- contemporary research for examples of the Predicament's set of 49 continuous critical problems of mankind;
- asynchronous clarification of these problems using a wiki;
- pair-wise construction of a systems view of problems assessed to be of highest priority by the class;
- narrative analysis of the structure; and
- creative suggestion for resolving the systems problem based on resources available today.

By starting with the 49 CCPs identified by Hasan Ozbekhan (Ozbekhan 1970), we eliminated the originating stages of SDD, that is, the framing of the triggering question,

and answering that question. Thus, we saved time, but violated the rules of SDD to that extent. Still, starting in this way, we were able to roughly follow the later stages of SDD. First, participants divided the 49 CCPs among themselves, and clarified the CCPs as best they could. One of the first products they produced was a clustering of the 49 CCPs. See Table 1 below.

Table 1. Representative Grouping of 49 Problems into Affinity Clusters

<p>CLUSTER #1: POPULATION GROWTH / DISTRIBUTION (9 ideas)</p> <ul style="list-style-type: none"> • (CCP-1) Explosive Population Growth with Consequent Escalation of Social, Economic, and Other Problems; • (CCP-8) Growing Inequalities in the Distribution of Wealth throughout the World; • (CCP-19) Inadequate Shelter and Transportation; • (CCP-20) Obsolete and Discriminatory Income Distribution System (S); • (CCP-27) Unbalanced Population Distribution; • (CCP-31) Widespread Unemployment and Generalized Under-Employment; • (CCP-32) Spreading ‘Discontent’ throughout Most Classes of Society; • (CCP-43) Irrational Distribution of Industry Supported by Policies that Will Strengthen the Current Patterns; • (CCP-48) Irrational Practices in Resource Investment. <p>CLUSTER #2: POVERTY, LAGS & GAPS (4 ideas)</p> <ul style="list-style-type: none"> • (CCP-2) Widespread Poverty throughout the World; • (CCP-5) Generalized and Growing Malnutrition; • (CCP-9) Insufficient and Irrationally Organized Medical Care; • (CCP-39) Growing Technological Gaps and Lags between Developed and Developing Areas. <p>CLUSTER #3: WARFARE (5 ideas)</p> <ul style="list-style-type: none"> • (CCP-3) Increase in the Production, Destructive Capacity, and Accessibility of All Weapons of War; • (CCP-29) Increasing A-Social and Anti-Social Behavior and Consequent Rise in Criminality; • (CCP-30) Inadequate and Obsolete Law Enforcement and Correctional Practices; • (CCP-33) Polarization of Military Power and Psychological Impacts of the Policy of Deterrence; • (CCP-40) New Modes of Localized Warfare. <p>CLUSTER #4: URBANIZATION (2 ideas)</p> <ul style="list-style-type: none"> • (CCP-4) Uncontrolled Urban Spread; • (CCP-17) Continuing Deterioration of Inner-Cities or Slums. <p>CLUSTER #5: EDUCATION (3 ideas)</p> <ul style="list-style-type: none"> • (CCP-6) Persistence of Widespread Illiteracy; • (CCP-13) Anachronistic and Irrelevant Education; • (CCP-37) Growing Use of Distorted Information to Influence and Manipulate People. <p>CLUSTER #6: INSTITUTIONAL ARRANGEMENTS (9 ideas)</p> <ul style="list-style-type: none"> • (CCP-7) Expanding Mechanization and Bureaucratization of Almost All Human Activity;

<ul style="list-style-type: none"> • (CCP-25) Generally Inadequate and Obsolete Institutional Arrangements; • (CCP-34) Fast Obsolescing Political Structures and Processes; • (CCP-38) Fragmented International Monetary System; • (CCP-41) Inadequate Participation of People at Large in Public Decisions; • (CCP-42) Unimaginative Conceptions of World-Order and the Rule of Law; • (CCP-45) Obsolete System of World Trade; • (CCP-46) Ill-Conceived Use of International Agencies for National or Sectoral Ends; • (CCP-47) Insufficient Authority of International Agencies. <p>CLUSTER #7: PREJUDICES (3 ideas)</p> <ul style="list-style-type: none"> • (CCP-10) Hardening Discrimination against Minorities; • (CCP-11) Hardening Prejudices against Differing Cultures; • (CCP-28) Ideological Fragmentation and Semantic Barriers to Communication between Individuals, Groups, and Nations. <p>CLUSTER #8: UNKNOWNNS (2 ideas)</p> <ul style="list-style-type: none"> • (CCP-12) Affluence and its Unknown Consequences; • (CCP-49) Insufficient Understanding of Continuous Critical Problems, their Nature, their Interactions and the Future Consequences that their Current Solutions are Generating. <p>CLUSTER #9: ENVIRONMENT (6 ideas)</p> <ul style="list-style-type: none"> • (CCP-14) Generalized Environmental Deterioration; • (CCP-21) Accelerating Wastage and Exhaustion of Natural Resources; • (CCP-22) Growing Environmental Pollution; • (CCP-24) Major Disturbance of the Globe's/World's Physical Ecology; • (CCP-35) Irrational Agriculture Practices; • (CCP-36) Irresponsible Use of Pesticides, Chemical Additives, Insufficiently Tested Drugs, Fertilizers, <i>etc.</i> <p>CLUSTER #10: VALUE-BASE (6 ideas)</p> <ul style="list-style-type: none"> • (CCP-15) Generalized Lack of Agreed-On Alternatives to Present Trends; • (CCP-16) Widespread Failure to Stimulate Man's Creative Capacity to Confront the Future; • (CCP-18) Growing Irrelevance of Traditional Values and Continuing Failure to Evolve New Value Systems; • (CCP-23) Generalized Alienation of Youth; • (CCP-26) Limited Understanding of What is 'Feasible' in the Way of Corrective Measures; • (CCP-44) Growing Tendency to be Satisfied with Technological Solutions for Every Kind of Problem.
--

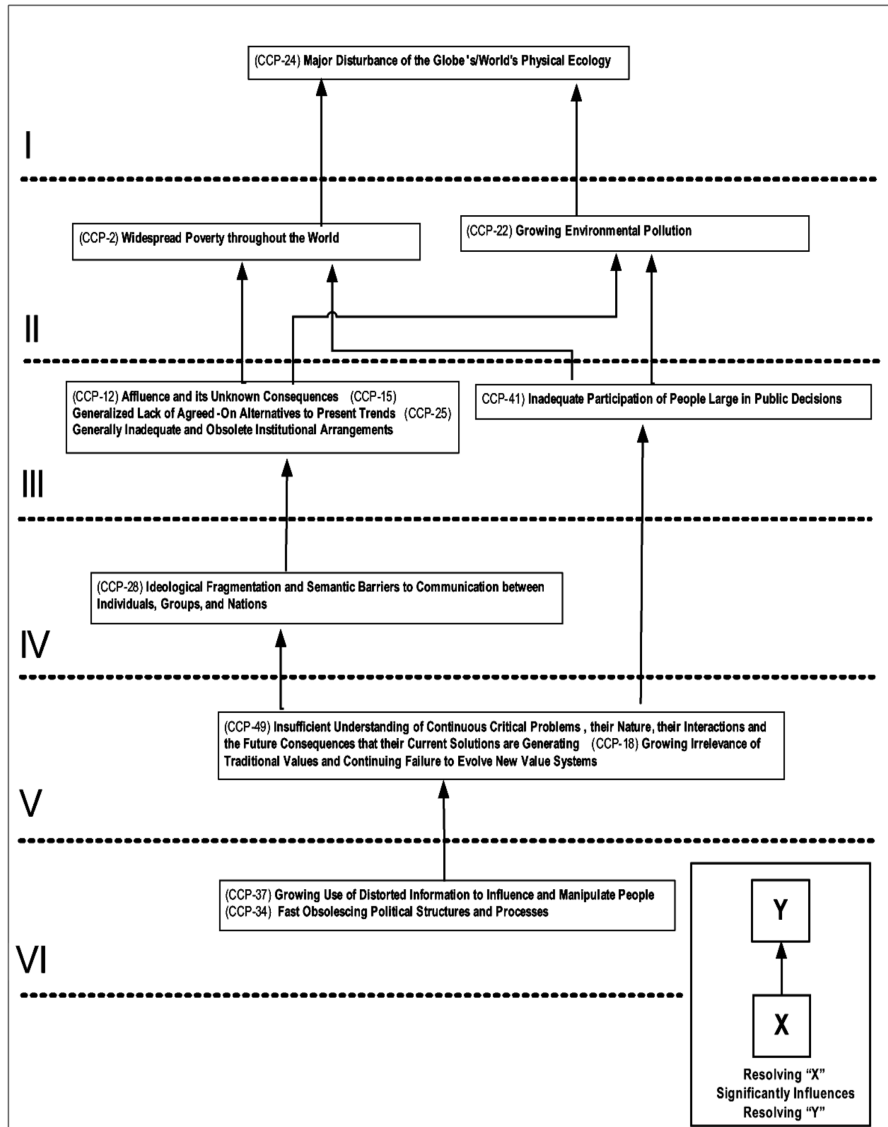
Then class participants each voted individually for five CCPs that they considered most important to include in a structure of the global problematique. This voting is NOT a means of establishing priority among ideas, but rather it is a simple means for identifying a starting set for constructing a systems view when a group is dealing with substantially more than a dozen important ideas. The class voting revealed 12 CCPs which received 2 or more votes. The list is shown in Table 2 below.

Table 2. CCPs that received 2 or more votes

<p>49 (6 votes) Insufficient Understanding of the Continuous Critical Problems, their Nature, their Interactions, and of the Future Consequences both they and Current Solutions to them are Generating;</p> <p>15 (4 votes) Generalized Lack of Agreed on Alternatives to Present Trends;</p> <p>2 (3 votes) Widespread Poverty throughout the World.</p> <p>41 (3 votes) Inadequate Participation of People at Large in Public Decisions;</p> <p>12 (2 votes) Affluence and its Unknown Consequences;</p> <p>18 (2 votes) Growing Irrelevance of Traditional Values and Continuing Failure to Evolve New Value Systems;</p> <p>22 (2 votes) Environmental Pollution;</p> <p>24 (2 votes) Major Disturbances of the World's Physical Ecology;</p> <p>25 (2 votes) Generally Inadequate and Obsolete Institutional Arrangements;</p> <p>28 (2 votes) Ideological Fragmentation and Semantic Barriers to Communication between Individuals, Groups, and Nations;</p> <p>34 (2 votes) Fast Obsolescing Political Structures and Processes;</p> <p>37 (2 votes) Growing Use of Distorted Information to Influence and Manipulate People.</p>

Creating the Influence Map

The 12 CCPs that achieved 2 or more votes were subjected to Interpretive Structural Modeling (ISM) (Warfield 1973). The modeling process was supported with software (CogniScope II; Christakis 1996) and the display of the software was shared through access to a virtual meeting space (<https://www.gotomeeting.com>). The software was programmed so that relationship assessments would be focused using the generic question: 'Would making progress on CCP *X* help SIGNIFICANTLY in making progress on CCP *Y* in the context of the global problematique?' The software uses transitive, non-reflexive, and asymmetric logic to fit a group's consensus assessment into a tree-like structure. Moreover, the software prompts the group to respond only to those remaining paired comparisons which have not already been explicitly specified.

Fig. 2. Class Influence Structure of the Global Problematique

Within two hours of structured dialogue, class participants from across the globe meeting in a virtual classroom reached consensus on a systems structure for 12 CCPs. The system structure was an influence map (an ISM product, or a 'tree') which displayed highly dependent or highly influenced problems, bottle neck problems, and deep driver problems. The deep driver problems are located at the root of the tree. See Fig. 2.

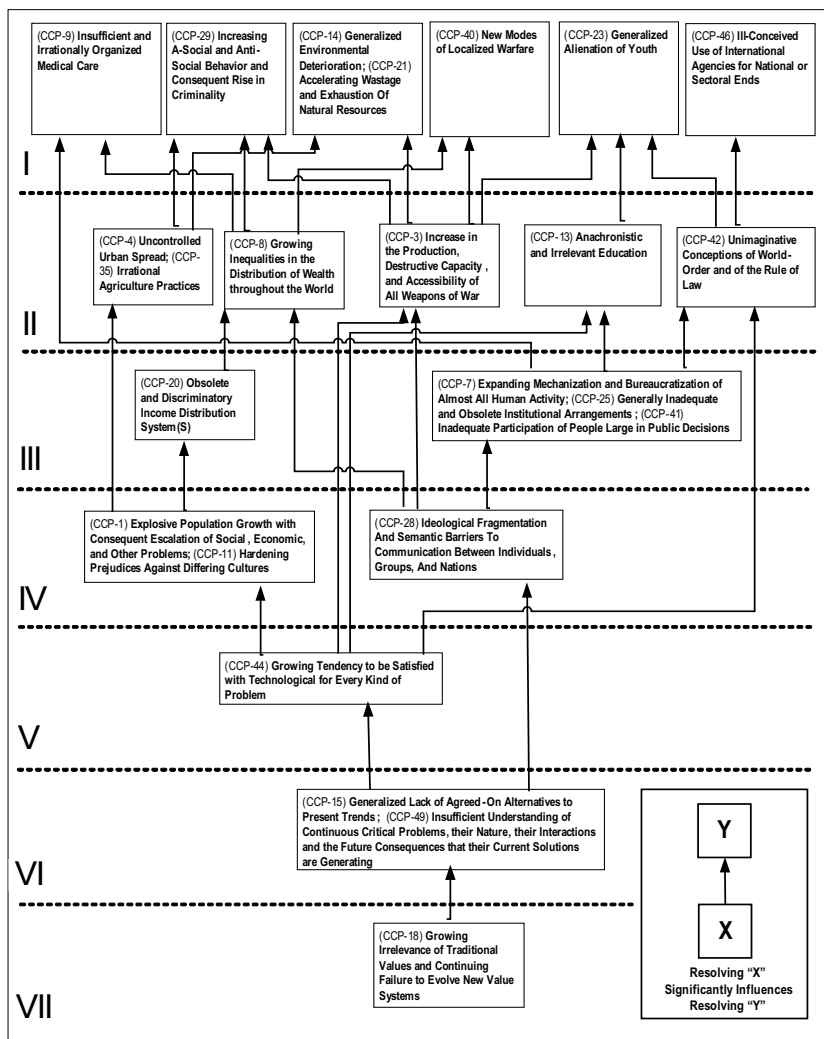
The resulting tree had 6 levels. The drivers on the deepest level (VI) were in a cycle, that is, they mutually influenced each other. They were CCP 37 'Growing Use of Distorted Information to Influence and Manipulate People' and CCP 34 'Fast Obsolescing Political Structures and Processes'. Immediately above this cycle was another cycle CCP 49

‘Insufficient Understanding of the Continuous Critical Problems’ and CCP 18 ‘Growing Irrelevance of Traditional Values and Continuing Failure to Evolve New Value Systems’.

It was the conclusion of the participant that addressing these four CCPs is essential for coming to grips with the global problematique.

In discussing the influences revealed in the map, participants were shown the results of a similar exercise done by Hasan Ozbekhan and colleagues in 1995. In 1995, they put twice as many CCPs (24) in their influence map, which had seven levels. Their deepest driver was CCP 18 ‘Growing Irrelevance of Traditional Values and Continuing Failure to Evolve New Value Systems’. One step up on Level VI was a cycle of CCP 15 ‘Generalized Lack of Agreed-on Alternatives to Present Trends’ and CCP 49 ‘Insufficient Understanding of Continuous Critical Problems’. The influence structure created by Ozbekhan is presented in Fig. 3 below.

Fig. 3. Ozbekhan Influence Structure



Discussion*Comparison of Class Re-enactment with the Uzbekhan Team's Structure*

In 1995, Hasan Uzbekhan and colleagues revisited the original problematique and its 49 CCPs through an application of the SDD method (see Fig. 3; Christakis 2006). Working with a group of three participants, Uzbekhan's team constructed a structure with 24 CCPs (twice as many as were used in the class re-enactment). Uzbekhan's team's structure had seven levels (the class structure had six). Students were presented with Uzbekhan's team's results and were challenged to find some similarities and differences which might reflect changes in the global problematique over the years. The students focused their attention on the deep drivers at the base of the tree.

Fifteen years ago, Uzbekhan's team did not view CCP 37 'Growing Use of Distorted Information' as one of the 24 problems they felt were essential in a basic structure of the problematique. This, of course, was at the very dawn of the Internet. It was a time when email was just breaking into the commercial market. Has information become more distorted recently? Is there a bigger issue: corporate media consolidation and the explicit management of mass media to political effect? Are we simply now more aware of the impacts of distorted information?

The second deepest driver identified by the class, CCP 34 'Fast Obsolescing Political Structures and Processes' does appear in the map constructed by Uzbekhan's team, but it is not mapped as a deep driver. Has this obsolescence become more problematic today? Are our demands on our political structures greater today after our awakening to a global war of terrorism?

The class and Uzbekhan's team both felt that CCP 18 'The Growing Irrelevance of Traditional Values and Continuing Failure to Evolve New Value Systems' and CCP 49 'Insufficient Understanding of Continuous Critical Problems' were highly influential problems impacting much of the systems structure of the problematique. This feature appears to be stable over time. Are we trapped wallowing in societies with anemic value systems? Can we free ourselves? Are conflicting value systems hardened beyond flexible growth? What have we really learned about the world over the last 15 years? We still seem to lack systemic understanding about the problems of the world and how to tackle them.

We are confused, individually and collectively. Individuals with strong personal conviction in their understanding of the way that the world works are frustrated that others cannot simply see things their way. We can see this as an interpretation of the combined effects of: the growing irrelevance of traditional values and continuing failure to evolve new value systems; insufficient understanding of Continuous Critical Problems; the growing use of distorted information to influence and manipulate people; and the fast obsolescing of political structures and processes. These CCPs result in a confused population, with no way to fathom drastic social change. Considered together this might be seen as a prescription for fundamentalism or fascist takeover.

Each individual problem in the global problematique carries a world of facts, figures, meanings, and futures. The full set of problems is not comprehensible in its entirety by anyone's mind. What the application of SDD does for a class of students – or a committee of policy makers – is to focus attention on issues and ideas that matter by framing those ideas in a consensually constructed systems view and considering the nature of their interactions. With good data from the past, and equally hopeful participation in the present and the future, we can look for trends which may indicate changes in pressure points for resolving the problems.

It is important that such views be provided to the public in a transparent, simple and actionable form. Currently, media and government portray an essentially confused and a deliberately (?) warped image of the world. Top down national or global views fail to reflect the understandings, intentions, and true priorities of humanity from our vantage points within our communities. Global economic growth today comes face to face with local sustainability. Powerful special interests continue to pigeon-hole complex issues into separate and easily marginalized boxes. This happens because communities do not make use of available tools which will allow them to form sophisticated consensus statements about complex situations. Based on experiences in communities, classrooms, and online classes, Structured Dialogic Design is emerging as an important tool for discovering community consensus.

It is perhaps not a great surprise that groups who reflect on our global state of affairs agree the 49 CCPs identified at the founding of the Club of Rome all still persist today. It has been said that even great persistent evils, over a sufficient passage of time, seem less evil and more like a part of the fabric of life. It is not enough that we identify deeply influential problems impacting the global problematique – we must find the strength and courage to attack them. The power of tools such as SDD is that they can focus our efforts for transformative change.

Identifying Corrective Actions

To follow up on their identifying the root causes of the global problematique, the students suggested actions that would impact the problematique's deep drivers. As a capstone task in an abbreviated time period, they nominated 8 'options' for action and mapped those options as a superposition structure on top of the structure of the global problematique which they had produced (Fig. 4).

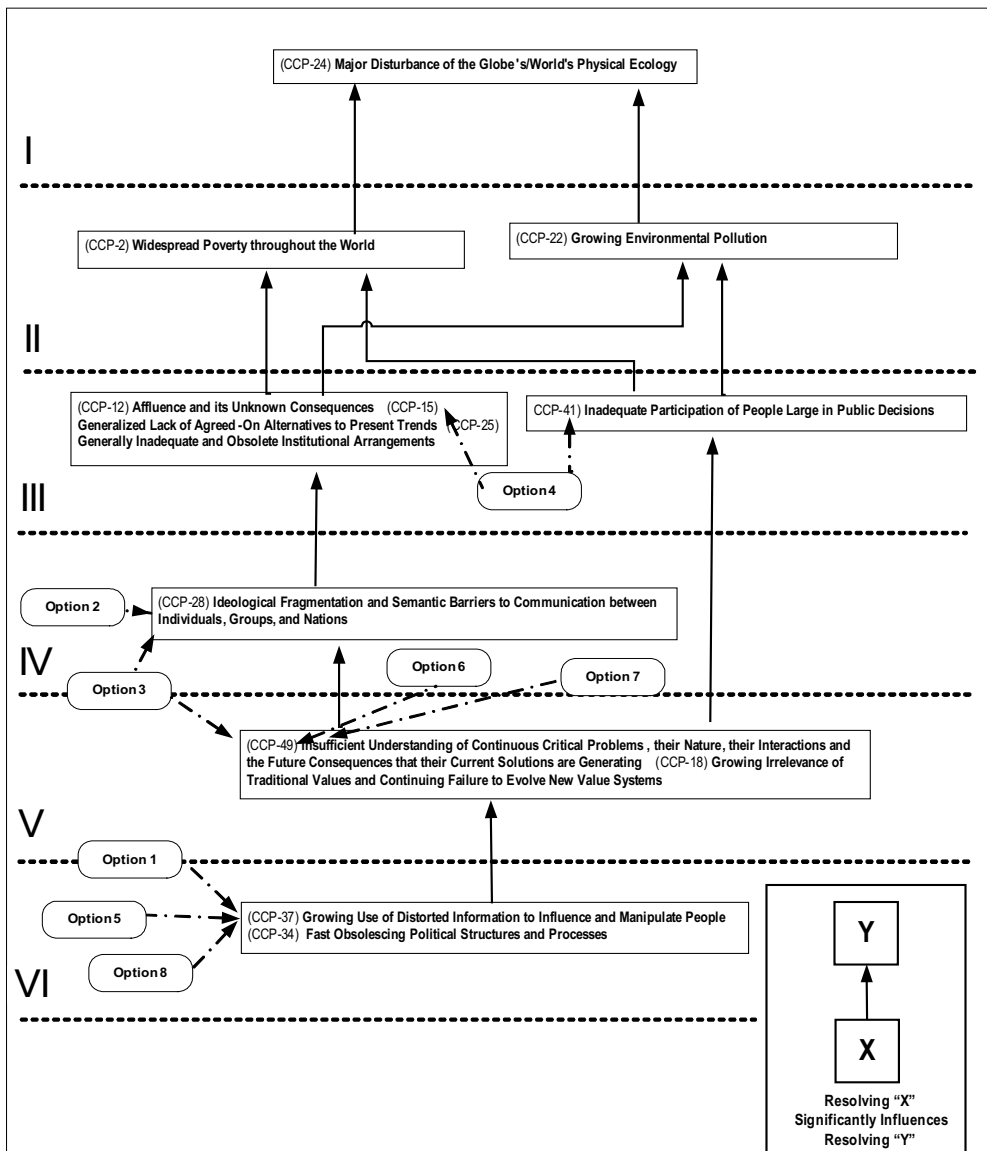
Table 3. Action options

<ul style="list-style-type: none"> • Option 1: Expose parties presenting false information, specifically media and corporate messages. • Option 2: Acknowledge the tragic necessity of wars as a means of reducing conflicting ideologies if collaboration is blocked. • Option 3: Convene religious leaders to agree upon our shared moral values. • Option 4: Insist that our governments foster authentic collaborative initiatives. • Option 5: Social and environmental sustainability should be present in the classroom all the time. • Option 6: Lead other groups in re-enactments of the Ozbekhan project. • Option 7: Provoke cognitive overload to force groups to seek new approaches. • Option 8: Apply Structured Dialogic Design broadly in many contexts as alternatives to obsolescing decisions processes.

While the deepest drivers identified in the class map (addressed in the capstone task with options 1, 5 and 8) will require specialized skills and interventions at large scale and/or over extended periods of time, members of the education community might collectively agree that CCP 49 'Insufficient understanding of Continuous Critical Problems' could be a focus of academic energies (addressed with Options 6 and 7). For example, new courses could be established in relevant planning and policy making programs. Online tools like SDD

could guide students through a reflective analysis and position them to focus on options for attacking specific deep drivers. SDD itself can also be used to ‘structure’ options for action so that the foundation steps in attacking an important problem can be identified through a consensus understanding. At a university level, interdisciplinary learning is often a mixture of ideas that falls short of a synthesis of a new view and a new approach. Students, educators, and community stakeholders might be invited to investigate how their views on the global problematique will lead to actions in local communities, which might begin to change the culture of the world.

Fig. 4. Superposition of actions upon CCPs



The Democracy and Sustainability (PoAd 9117) course as offered at Flinders University has been a beginning and it falls to us to decide if we will find a way to extend its lessons into action.

Critique of elements of the learning platform

Many universities are currently providing online and blended learning opportunities for students at multiple levels of academic training. For the ease of institutional use, most universities adopt a uniform 'learning management system' that then becomes a *de facto* platform for all of their online institutional courses. Such systems typically integrate registration with course work and student records; however, the choice of any one system and its attendant management policies can unintentionally erect access barriers for experimental courses which pool students from different university systems. To maximize accessibility and replication of this experimental course, a decision was made to use components of a communication platform that are publically available to all without cost. An alternative, of course, would be a philanthropic offering by a global information company to host academic courses for global audiences when the subject matter of those courses meet both social and academic standards. The significant liability in the ad hoc platform we have used in this study is that components themselves will be unfamiliar to many first time students. Individual and collective accommodations with the use of the communication platform will be required by new teachers as well as new students, and this can delay diffusion of the learning experience to many audiences.

The individual components of our ad hoc learning platform are considered below.

Email

Course participants were engaged using individual email accounts, some of which may be supported through their home universities. Email was used to guide students to registration processes, to present class schedules, and to distribute instructions for accessing other components of the learning platform. None of our course participants reported difficulty with their email communications; however, high volume use of email alone as a means of exchanging and contributing to rapidly updated information is impractical in even modest size classes.

Voice-over-Internet

Skype software provides free, voice-over-Internet communication (<http://www.skype.com/>). Users need to have personal computers that include microphones and speakers and need to have administrative control over the computers that they are using so that they can download and install free SKYPE software. We have used this resource for groups of up to 16 participants. At the start of the course, email instructions for acquiring a Skype account were presented to students, and faculty Skype account names were shared. Students and faculty established individual calls amongst themselves in anticipation of an initial conference call. The initial conference call convened the class to elicit collective reflection of the course design, review of the syllabus, and questions related to assignments. This call also allowed class participants to discuss other components of the online learning platform.

Skype additionally provided students with an instant means of seeing when their instructor might be available for an *impromptu* 'office visit' or when fellow students might

be available for an impromptu consult. Easy voice contact adds an important mechanism for working with students who may be participating from different cultural and linguistic backgrounds.

Wiki Website

A jointly authored website was used as a repository of course participant contributions to the content of the course. Wikispaces was selected as the online repository for the course because it was judged to offer a facile system for managing multiple streams of threaded discussion, it had proven to be reliable in prior testing, and it offered its services without user fees. A class worksite was established and was sequentially expanded as the course progressed through its six week cycle (<http://predicament-retrospective.wikispaces.com/>).

The class wiki workspace was configured to provide distinct 'workspace sections' for each of the following phases of class activity (though not all phases were used in this pilot course):

- the problem sets and their clarifications;
- the students' individual preferences for most important problems;
- the class's collective understanding of interactions among highly preferred problem;
- the students' individual narrative accounts of that understanding;
- the students' individual recommendations for acting on highly preferred problems;
- the overlay of actions on the class's understanding of the system of influence among problems;
- individual student reflections on the content and process of learning through this experimental online course.

The class wiki workspace content included supportive documents in the form of:

- a disclaimer clarifying that the class wiki is not a work product of the Club of Rome;
- a catalogue of key email notices about administrative issues within the course;
- a record of the course announcement;
- a library of course readings;
- a syllabus of course tasks;
- a list of course participants and their contact information;
- a page providing world time zones to support in transglobal synchronous meetings.

The Wiki workspace approach was based upon practices developed and validated by Gayle Underwood, who has 15 years of experience in education in online learning projects. She is the senior technology integration consultant for the Allegan Area Education Service Agency and is recognized for her leadership in Universal Design for Learning in Michigan schools. Internationally, Gayle has been supporting online learning for Turkish and Greek communities in the island of Cyprus and is working with Americans for Indian Opportunity (AIO) and the Advancement of Maori Opportunity (AMO) to enhance interaction and communication among indigenous people throughout the world. The effective use of this wiki, including orientation and coaching for course participants, is a task of the instructional staff.

Online Screen Sharing

Student access to online screen sharing involves responding to an invitation to enter a specialized, interactive website. For the purpose of this pilot course, a no-cost, trial membership was secured from GoToMeeting (<http://www.gotomeeting.com/fec/>).

Students were emailed a URL for the website with instructions for entering the classroom and a time for signing into that website. The classroom can be open for public participation or password protected for private meetings at the instructor's option.

From the instructor side, software needs to be downloaded and a hosting session needs to be scheduled and launched. The online class used only basic features of the virtual classroom to enable online screen sharing. Votes were tallied using a subroutine of the GoToMeeting software.

The virtual classroom proved effective as a means of sharing a software display screen as students engaged in real-time, pair-wise comparison of continuous critical problems.

Systems Structuring Software

Instructors applied CogniScopeII software to collect and display the 49 Continuous Critical Problems, construct affinity clusters, and construct an interpretive structural model (ISM) based on the class's pair-wise comparisons. The class successfully constructed a tree-like map based upon their highly preferred CCPs. An academic version of this software package that is limited to mapping 15 problems is available free to academic users (see <http://www.globalagoras.org/>).

Critique of the Course Plan

The four-week experimental online course followed a collaborative, project-oriented pedagogy and was made available through the Graduate Program in Policy and Administration (PoAd 9117-5) at Flinders University during the months of March and April, 2010. The course was co-designed by Dr. Janet McIntyre-Mills who teaches at Flinders University and at the University of Indonesia and by Dr. Kenneth Bausch and his colleagues within the Institute for 21st Century Agoras. This experimental course combined experienced teachers with a novel learning environment, and introduced an innovative collaborative approach to foster student engagement. The course was scheduled to run continuously over six weeks during which time students would convene into five synchronous, full class participation events scheduled for early morning in Australia and late afternoon in the United States.

Student participation was evidenced by the level and the quality of questions and responses contributed to the dialogue throughout the process. Students were expected to present and defend their individual understanding for CCPs and were also expected to challenge the understanding of CCPs posted by other class participants. This created a transparent record of how students contributed to the class dialogue. No upper limit was established for student participation in exploring CCPs posted by other students; however, 'active engagement' was modeled by two class auditors who had contributed to wiki-based clarifications in prior collaborative learning projects.

Contributions in terms of original, independent research and clarification of CCPs (including illustrative website references), individually written narratives based upon the consensus map that the class constructed, and summary reflections (*i.e.*, a 6,000 word essay based upon elaboration of the work within the online classroom) were graded using traditional academic metrics.

Conclusion

Online learning analyses are most frequently reported based on experiences of classes which are embedded within codified learning management systems applied by instructors

trained in the use of the platforms and backed up with local technical support. One of the goals of this experimental project was to engage novice participants with an overwhelming body of complexity while concurrently challenging them to work through an unfamiliar learning management platform. This is perhaps as difficult an academic challenge as any instructor might care to engage. Indeed, the instructors who agreed to participate in this study acknowledged their reliance on information systems professionals to help them learn as they go. The challenges encountered in this experimental course are on the one hand fully expected, yet on the other hand surprising. They include:

1. Delay in course launch.
2. Technical challenges working with the platform components.
3. Uncertainty with respect to student expectations.
4. Complexity of subject matter.
5. Language issues working across international cultures.
6. Efficiency in collecting real-time input.
7. Differences in – and changes in – local time zones.
8. Changes in course enrolment during the course.
9. Evolving ideas for course content during the course.

Initially, a wiki shell was constructed for the instructor, SKYPE addresses were provided to the instructor, and a GoToMeeting account was opened for the instructor. After a frustrating attempt to launch the course using only self-informed familiarity with the platform components, a decision was taken to transfer the platform management task to an experienced information system management team. Instructors retained direct contact with students within and beyond the synchronous meeting events. Technical issues encountered by students as they engaged the use of the learning platform were addressed in conference calls. Unanticipated changes in day light savings time in both the United States and Australia, in different weeks, led to confusion. One of these changes led to a fracture of the class at intensely interactive structuring phase of the course. To mend this fracture, faculty and support staff duplicated the structuring experience for members of the class who were late entering that session (giving rise to a preliminary 1st structural map and then allowing for a full class 2nd structural map).

Given technical problems and information complexity, it would be understandable if student engagement were to decline. Through subjective interviews (independent of any grade consequence), students universally expressed views which indicated that they felt they were part of a ‘real world’ shared learning environment throughout this pilot course.

End Note

The online collaborative process applied in this pilot course demonstrated measures of success yet also identified challenges for future use. Even within the modest goals of this class, it is clear that a new approach to collaborative decision-making to engage the overwhelming problems facing the world today can be extended to virtual classes and communities through currently available online methodologies. Beyond the classroom, online application of SDD has been used with groups engaged in education system transformation, nation rebuilding, and policy evaluation (see Laouris *et al.* 2010). Enhancements in the publically available online platforms used in this project present

genuine opportunities to accelerate the diffusion of online collaborative decision-making processes which are essential to enact authentic participatory democracy.

Acknowledgment

We acknowledge the inspiration and innovation of Alexander N. Christakis in his lifelong pursuit of connective truth. His influence on our thinking is expressed in statements such as: ‘*Truth is situational, ephemeral, and a snapshot of a consensual linguistic domain. SDD is like a camera taking pictures of this truth*’ (Christakis 2010).

References

- Alport, K., and MacIntyre, C. 2008.** Citizens to Netizens: Grass Roots Driven Democracy and E-democracy in South Australia. In Anttiroiko, A.-V. (ed.), *Electronic Government: Concepts, Methodologies, Tools and Applications* [re-printed from *International Journal of Electronic Government Research* 3(4), 2007: 38–57]. Hershey, PA: Information Science Reference (IGI Global).
- Bausch, K. C. 2010.** *Body Wisdom – Interplay of Body and Ego*. Atlanta, GA: Ongoing Emergence Press.
- Christakis, A. N. 1996.** A People Science: The CogniScope (TM) Systems Approach. *SYS-TEMS: Journal of Transdisciplinary Systems Sciences* 1(1): 16–19.
- Christakis, A. N. 2006.** A Retrospective Structural Inquiry of the Predicament of Humankind Prospectus of the Club of Rome: Understanding Churchman's Work through Practical Applications in the Public and Private Sectors to Enhance Social and Environmental Justice. In McIntyre-Mills, J. (ed.), *Rescuing the Enlightenment from Itself: Critical and Systemic Implications for Democracy* (pp. 106–135). New York – Boston: Springer Science & Business Media, Inc.
- Faist, T. 2009.** The Transnational Social Question: Social Rights and Citizenship in the Global Context. *International Sociology* 24: 17–36.
- Flanagan, T., McIntyre-Mills, J., Made, T., Mackenzie, K., Morse, Ch., Underwood, G., and Bausch, K. 2011.** A Systems Approach for Engaging Groups in Global Complexity: Capacity Building through an Online Course. *Systemic Practice and Action Research* 25(2): 171–193. DOI: 10.1007/s11213-011-9216-6
- Flanagan, T. R., and Bausch, K. B. 2011.** *A Democratic Approach to Sustainable Futures*. Atlanta, GA: Ongoing Emergence Press.
- Hulme, M. 2009.** *Why We Disagree about Climate Change. Understanding Controversy, Inaction and Opportunity*. Cambridge: Cambridge University Press.
- Laouris, Y., Underwood, G., Laouri, R., and Christakis, A. N. 2010.** Structured Dialogue Embedded within Emerging Technologies. In Veletsianos, G. (ed.), *Emerging Technologies in Distance Education* (pp 153–173). Edmonton: Athabasca University Press. URL: <http://www.aupress.ca/index.php/books/120177>
- McIntyre-Mills, J. 2006.** Systemic Governance and Accountability: Working and Reworking Conceptual and Spatial Boundaries. London – Boston: Springer.
- McIntyre-Mills, J. 2008a.** Ethics, Energy and Climate Change. Systemic Ethics: Social, Economic and Environmental Implications of Eating our Yellow Cake in South Australia. *Systems Research and Behavioral Science* 25(2): 225–248.

- McIntyre-Mills, J. 2008b.** Ethics, Identity and Politics: Reconsidering Relationships across Self, Others, the Environment and Technology. *Systems Research and Behavioral Science* 25(2): 193–214.
- McIntyre-Mills, J. 2010a.** Representation, Accountability and Sustainability. *Cybernetics and Human Knowing* 17(4): 51–80.
- McIntyre-Mills, J. 2010b.** Wellbeing, Mindfulness and the Global Commons. *Journal of Consciousness Studies* 17(7–8): 44–72.
- McIntyre-Mills, J., and De Vries, D. 2011.** *Identity, Democracy and Sustainability*. Litchfield Park, AZ: Emergence Publications.
- McIntyre-Mills, J., De Vries, D., and Deakin, J. 2008.** Participatory Democracy Based on User Centric Design to Address Complex Needs. In Kane, L., and Poweller, M. (eds.), *Citizenship in the 21st Century* (pp. 1–54). New York: Nova.
- Meadows, D. H., Meadows, D. L., Randers, J., and Behrens III, W. W. 1972.** *The Limits to Growth*. New York: Universe Books.
- Meadows, D. L., and Randers, J. 1992.** Beyond the Limits. *In Context* 32. URL: <http://www.context.org/ICLIB/IC32/Meadows.htm>
- Nussbaum, M. 2006.** *Frontiers of Justice, Disability, Nationality and Species Membership*. London: Harvard University Press.
- Ozbekhan, H. 1970.** *The Predicament of Mankind*. URL: <http://sunsite.utk.edu/FINS/lover-sofdemocracy/Predicament.PTI.pdf>
- Rittel, H., and Webber, M. 1984.** *Planning Problems are Wicked Problems Developments in Design Methodology*. New York: Wiley.
- Warfield, J. N. 1973.** On Arranging Elements of a Hierarchy in Graphic Form. *IEEE-SMC* 3(2): 121–132.

Section 2. TEACHING MATERIALS SAMPLES

Introduction to the History and Methodology of Global Studies¹

Igor I. Abylgaziev, Ilya.V. Ilyin, and Ruslan R. Gabdullin

In this lecture we will focus our attention on key aspects of history (origin) and methodology of Global Studies. The detailed survey of literature is not an objective of this lecture, as our main goal is to clarify the essence of Global Studies from the point of view, existing in Russian scientific schools.

It is not widely known but the founder of Global Studies in Russia was Mikhail Lomonosov (1711–1765), who was also the founder of the Moscow University. In the year 2011, Russia celebrated the 300th birth anniversary of this outstanding scientists.

Mikhail Lomonosov argued that an integral system of congruent deductions consists of many small truths, the so-called *System of Systems*, the *Congruence of the Universe*, or the *Principle Integral of the Universe*.

This is a universal, global system which embodies all partial truths. *‘There is a universal constant law of Nature, which is in tune with the voice of nature that is everywhere: in unanimity and harmony, in the accuracy of experiments, in diligence, in truthfulness, in a sophisticated structure of arguments, in the consent of all the reasons. I should like to have an all-embracing view of the totality of all the things that never meet a contradiction. I venture on this and rely on the statement that nature clings to its laws, and it is the same everywhere: the corpuscles in the living and the dead animals are moving, in the living and the dead plants are moving, as well as in minerals and inorganic matter – hence, in everything.’*

Lomonosov studied global processes on the Earth and beyond its boundaries. To fully understand his scientific contribution to this field of knowledge, we will dwell on some of his investigations. First of all he explored the physics of global atmospheric processes. The historic year 1753 witnessed the release of his fundamental work *A Word about the Air Phenomena Occurring from Electric Force* where he connected the Northern Lights with the electricity phenomena in the atmosphere (Fig. 1).

He described the global system of the atmospheric circulation on the Earth (Fig. 2). This scientific outlook contributed a lot to the understanding of elements and processes of the atmosphere. The today's model of dynamics of atmospheric processes (Fig. 3) only specifies the model suggested by Lomonosov.

¹ This article was first published in *3G: Globalistics, Global Studies, Globalization Studies: Scientific Digest* (edited by I. I. Abylgaziev, I. V. Ilyin). Moscow: MAKS Press, 2012, pp. 7–15.

Fig. 1. Northern Lights. Mikhail V. Lomonosov's picture 'A Word about the Air Phenomena Occurring from Electric Force', 1753

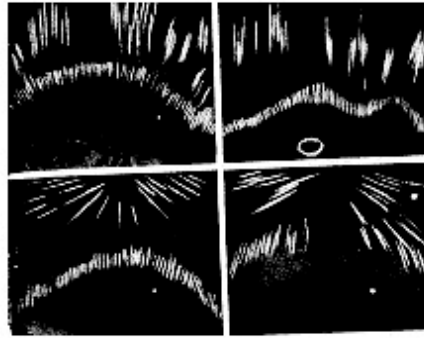
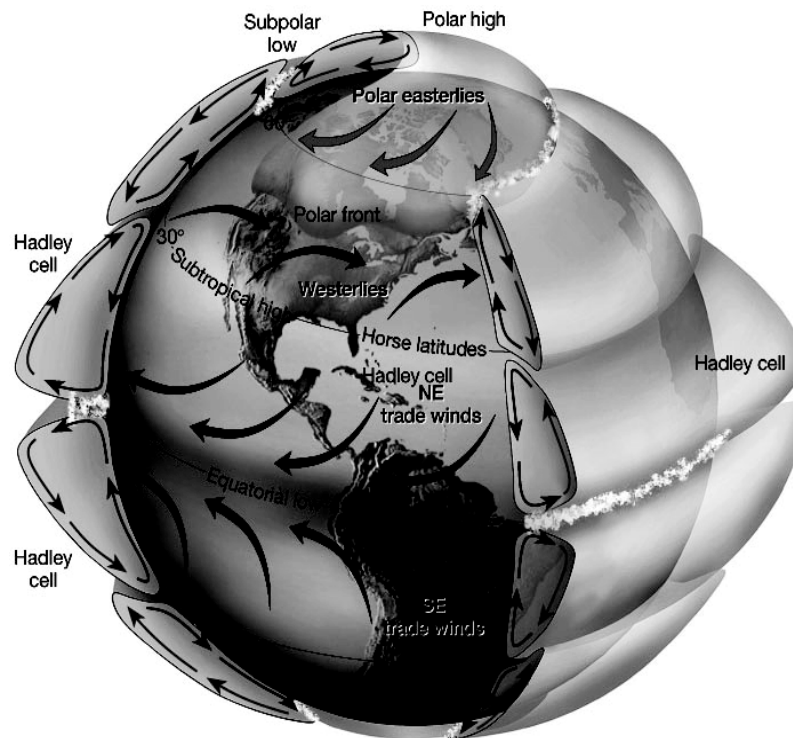


Fig. 2. The scheme of vertical air flows in the Earth atmosphere. Mikhail V. Lomonosov's picture from 'A Word about the Air Phenomena Occurring from Electric Force', 1753

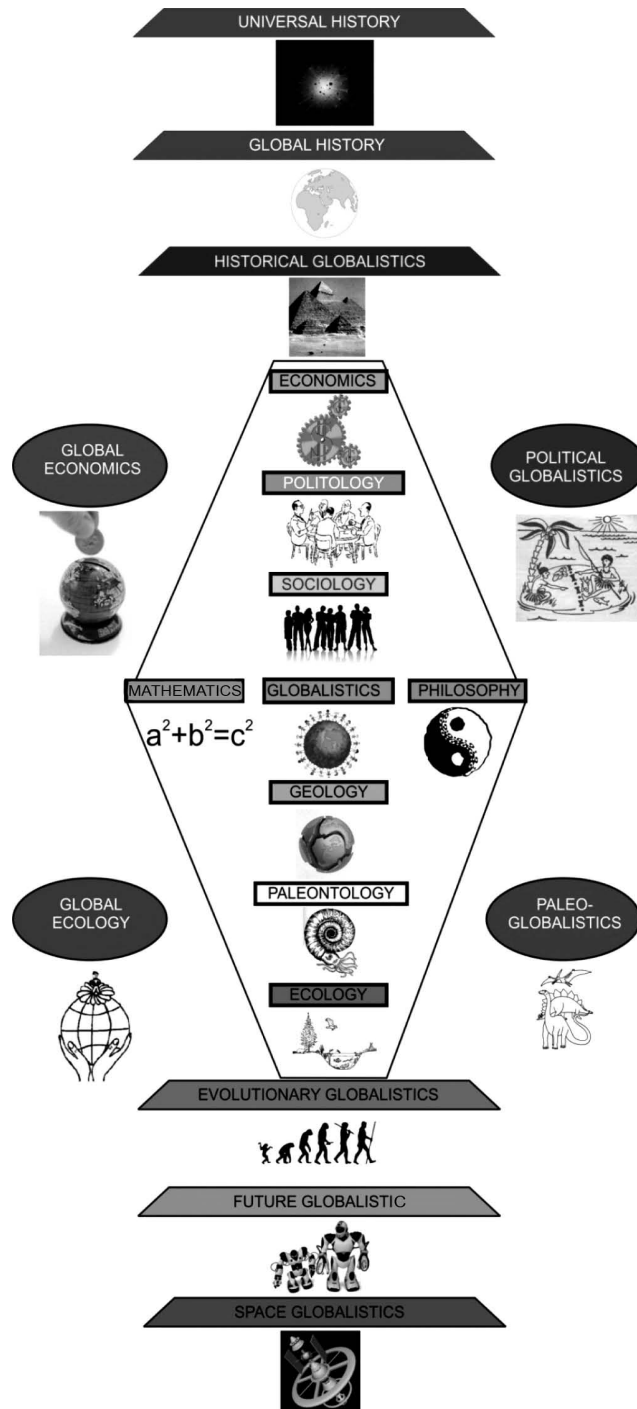


Fig. 3. The scheme of the global circulation of the Earth's atmosphere

Globalistics is an emerging area of scientific knowledge about global phenomena and processes, which exists in three forms: as an interdisciplinary research field, the basis for a new world outlook of modern people and a field of the conflict of interests, covering a wide range of public relations, from economy and politics to culture and ideology.

Nowadays, there is no common all-embracing Globalistics concept, which could help to overcome global crises. The creation and development of such a concept can be considered as a key strategic goal of Global Studies which is an interdisciplinary field of scientific knowledge. Fig. 4 demonstrates the interconnection of Global Studies and other scientific fields of knowledge as well as the emergence of new disciplines.

Fig. 4. Interconnection of Global Studies and other scientific fields of knowledge and emergence of new disciplines



On the one hand, it is evident that Global Studies are closely related to Sociology, Political Science, Economics, and Philosophy, that is, to social and humanitarian branches of knowledge. On the other hand, Global Studies interact with natural sciences – Geology, Mathematics, Ecology, and Paleontology. The interaction of these disciplines gives rise to the main scientific directions in Global Studies. For example, the conjunction of Global Studies and Economics results in Global Economics, the one of Global Studies and Political Science results in Political Globalistics, the one of Global Studies and Ecology results in Global Ecology, the one with Paleontology results in Paleoglobalistics.

The diachronic research in Global Studies is represented by three scientific areas of different levels, which study the origin and development of global systems and processes, namely, by the Universal (or Big) History (the history from the Big Bang to the present day), by the Global History (the history of the Earth from the moment of the origin of the Solar System and the Earth up to the present), and by the Historical Global Studies (covering the history of globalization from the first civilizations to the present day). The evolutionary trend and temporal aspects are studied by Paleo-, Neo-, Futuro-, and Cosmo-Globalistics.

According to the main issues of global research it is possible to distinguish three main branches within Globalistics (see Fig. 5): study of global problems (challenges), study of global processes and study of globalization. Each sphere has its own specific criteria and infers different approaches to their definitions.

The subject of Globalistics is global evolution, while the object embraces global problems, processes and systems. Global evolution means the whole range of coordinated and co-evolutionary global processes and systems, as it is defined by supporters of the so-called social-natural approach to global issues. Therefore, global processes include global natural processes (GNP), global social-and-natural processes (G SNP) and global social processes (GSP).

Global natural processes change the physical structure of the planet (its atmo-, bio-, litho-, and hydrospheric and other structures). They cause major natural catastrophes on the planet and in its regions.

Global social-and-natural processes signify the processes of interaction between the society and nature (environmental processes, natural resources exploitation, *etc.*).

Global social processes affect the structure of social relations in the world (economic, political, socio-cultural processes, *etc.*)

There are various types of global systems and processes occurring in them or between them. The hierarchical classification of global systems is one of such examples (Fig. 6), covering global social, biological and geological systems. They are usually called socio-sphere, biosphere, lithosphere, *etc.* Within a system we can distinguish hierarchical levels, which form subsystems, and the lower the level, the more subsystems there are.

Global socio-system is represented by civilizations, states, *etc.*

Global bio-system includes biocoenoses and different taxonomic groups of living organisms.

Fig. 5. Three main branches of Global Studies



Global geo-system is presented by a set of geological bodies, plate tectonics, *etc.*

From everything mentioned above it is evident that there is a close interrelatedness of development, that is the co-evolution, and therefore the need for an interdisciplinary approach becomes quite obvious.

Now, let us analyze the hierarchical classification of some global processes (Fig. 7), such as **the globalization of society, the evolution of life and plate tectonics, which correspond to socio-, bio- and geo-global systems, respectively.**

Fig. 6. The hierarchical classification of global systems

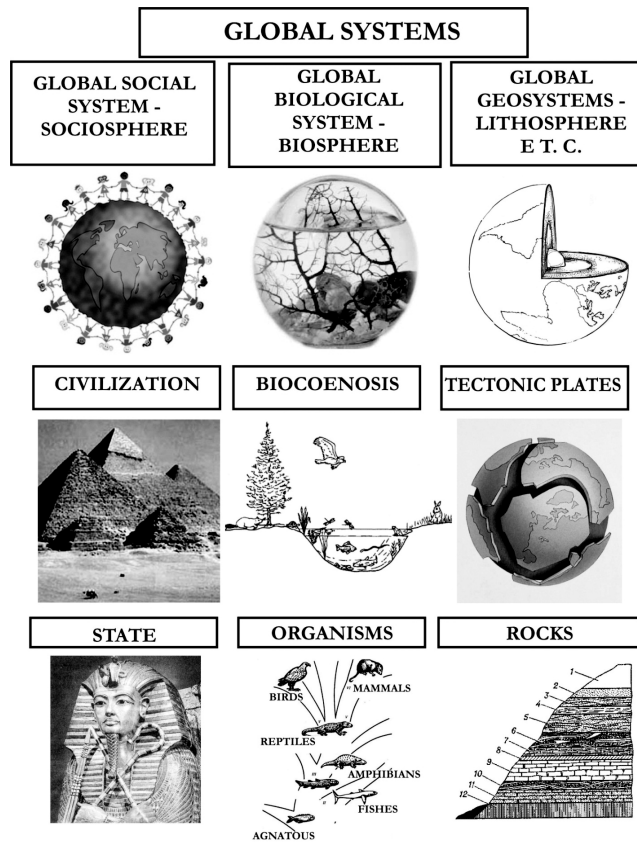
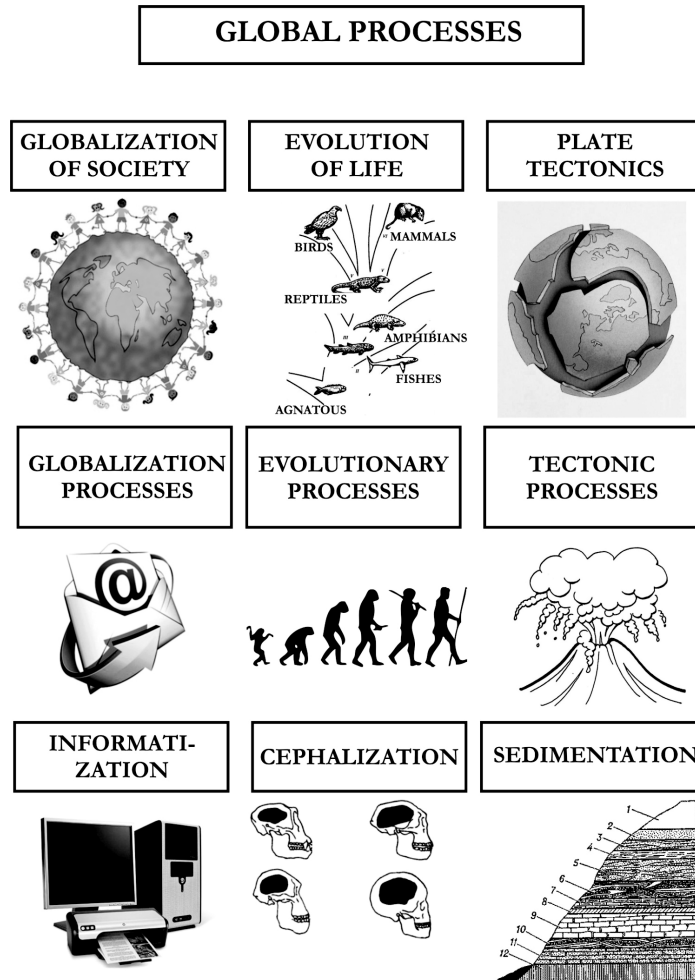


Fig. 7. The hierarchical classification of some global processes



The principle of subordination of hierarchical levels and the increase in the number of the constituents, typical of the lower status level, is also applicable to the issue.

The globalization of the society implies the whole range of global processes. The global virtual space and one of its components – informatization are just some of such examples.

The evolution of life is represented by a set of complex evolutionary processes, *cephalization* being its special case. The latter means a sustainable development and complication of brains of living organisms.

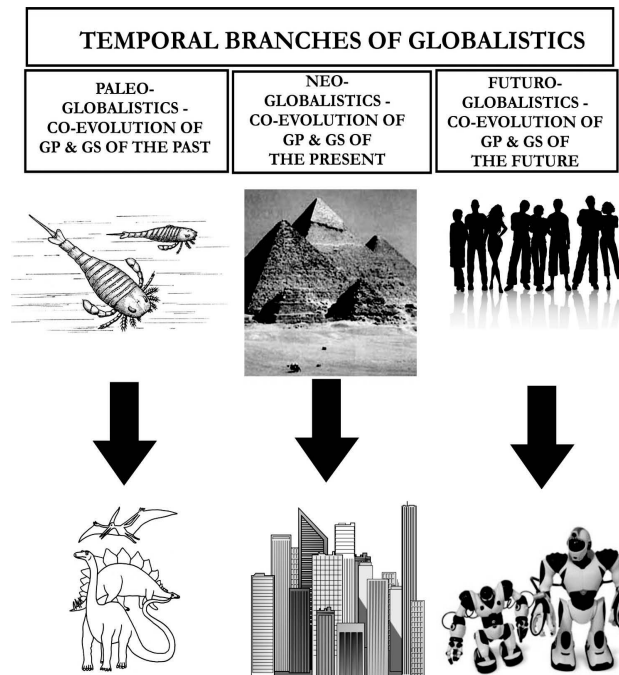
Plate tectonics, or movement of large blocks of the crust refers to a set of various tectonic and geological processes, causing the shift of plates in horizontal and vertical planes. This leads to the appearance and disappearance of oceanic and continental basins in which the accumulation of geological sediments (sedimentation) takes place.

Nowadays there is a necessity to employ more effectively modern methods developed in other scientific spheres. These include the Complexity Studies approach, the ecological approach (ecology in its broad meaning being the science which studies the interaction of systems of different organizational levels), and the evolutionary approach. They are to help us better understand global processes by means of the concept of Geo-spheres's co-evolution *etc.*

Temporal criterion in Global Studies. Taking into consideration everything mentioned above, it is possible to approach the main temporal 'sections' of Globalistics. It brings us to distinguishing between some temporal branches (Fig. 8), that is, between Paleo-Globalistics (co-evolution of global processes and systems of the past), Neo-Globalistics (co-evolution of global processes and systems of the present) and Futuro-Globalistics (co-evolution of global processes and systems of the future). Moreover, the vector of co-evolution can be traced within each of these diachronic sections even though they do not have clear boundaries.

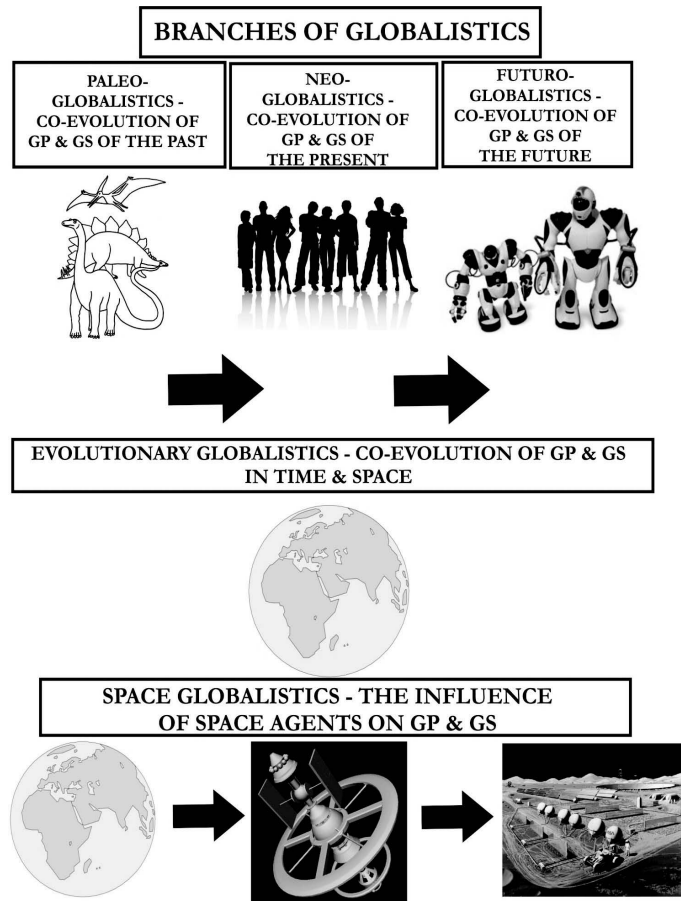
Temporal boundaries between the branches of Globalistics. Paleo-Globalistics studies the global processes starting from the moment of the Earth formation, when there were many systems and processes, which are now either completely or almost non-existent, or they are greatly changed, giving rise to the present systems and processes. Nevertheless, some of these processes and systems are quite topical today. Global processes and phenomena of the present are studied by Neo-Globalistics and scholars researching global processes and systems are already discussing and forecasting global trends for systems and processes of the future. They are in fact handling the problems of Futuro-Globalistics.

Fig. 8. Temporal branches of Globalistics



Shifts of dominant global systems and processes, and their co-evolution constitute the subject of Evolutionary Globalistics (Fig. 9). This branch defines exact time periods when one phase of global development gives way to another. Up to now all the global processes and systems have been investigated as applied to the Earth, but human development has a well-defined vector directed towards the outer space colonization. In the nearest future we are to approach a new stage, the ‘Cosmo-Globalistics’ stage, and then, Cosmo-Globalistics will become a most topical issue, which will study cosmic impact on global processes and systems (Fig. 9).

Fig. 9. Branches of Globalistics in spatial and temporal coordinates (time and space)



Global Processes and Systems

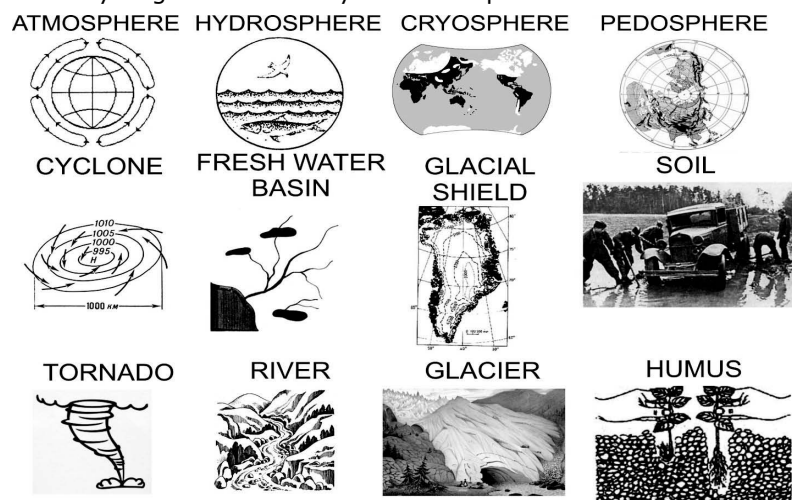
Ilya V. Ilyin, Ruslan R. Gabdullin, and Alexey V. Ivanov¹

Global processes of the Earth are the result of its global systems' interactions, so we consider them in the aggregate. Natural processes are elements of global processes. Global natural processes exist not only on the Earth, but in outer space, for example, on primary planets. *Most of the global natural processes are identical or similar to each other on different planets* (volcanic activity, rotation of planets, atmospheric processes on Mars, Venus and so on). They have a key impact on all cosmic bodies including our planet. Origin of the Universe, the Solar System and the Earth is the subject matter of Universal and Global History / Big History. Paleo-Globalistics, in turn, is a study of evolution of the Earth, its global systems and processes in historic perspective, as well as a study of evolution of life. Interaction of cosmic bodies is explored in Astronomy and Astrophysics. Global natural processes of the Earth are one of the objects of study in Globalistics.

In our view, the Earth is a set of natural systems. Lithosphere (global geosystem) is the outer solid part of the planet. Gravitational field determines spherical form of the Earth and existence of atmosphere (global aerial system) and hydrosphere (global aquatic system). Cryosphere (global system of ice and snow) is water in frozen state. The presence of water and air has made the existence of life possible, which implies the existence of biosphere (global biosystem). Pedosphere (global soil system) is the result of life sustenance of organisms, urbosphere (global urban system) was formed by human activity.

According to hierarchical principle, every system contains subsystems – systems of lower rank (see Fig. 1).

Fig. 1. Hierarchy of global natural systems and processes



¹ This article was first published in 3G: *Globalistics, Global Studies, Globalization Studies: Scientific Digest* (edited by I. I. Abylgaziev, I. V. Ilyin). Moscow: MAKS Press, 2012, pp. 37–39.

Global natural systems interact via global natural processes, most of them are processes of supra(inter)system rank. For instance, *water circulation as a global process exists in every system* (see Fig. 2, Tab. 1). Examples of particular global processes are presented in the lowest row of the table.

Fig. 2. Water cycle as a global natural intersystem process. Numbers show the volume in thousands of cubic miles

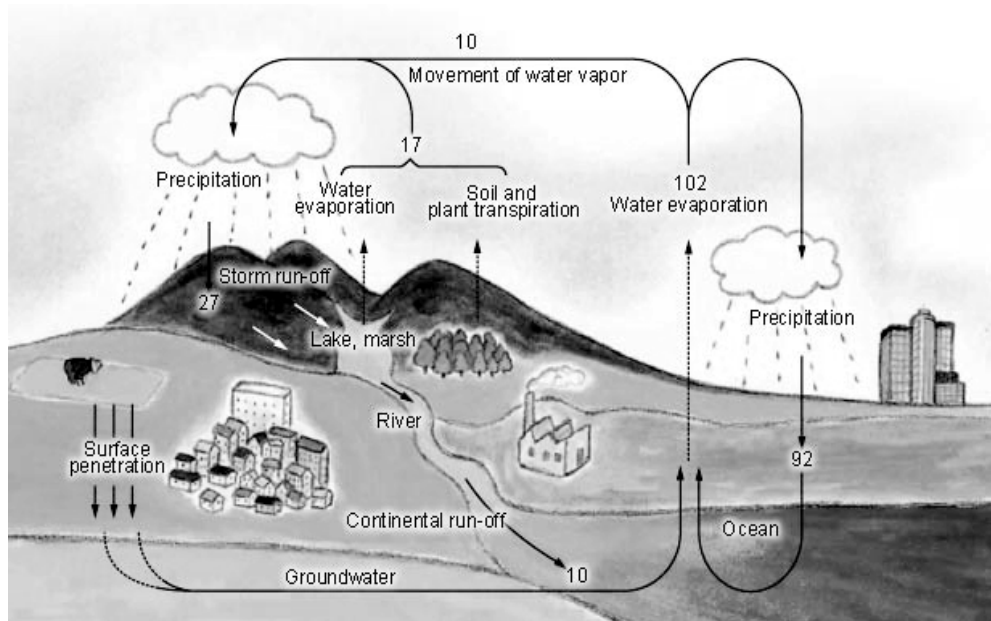
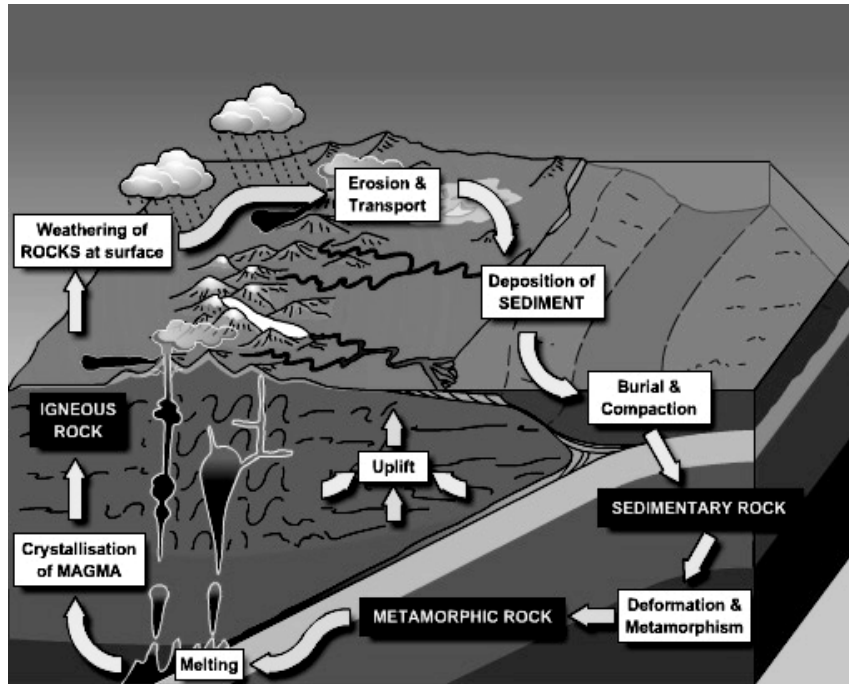


Table 1. Inter(supra)system global natural processes

Atmosphere	Hydrosphere	Cryosphere	Pedosphere	Lithosphere	Biosphere	Urbosphere (Urban Sphere)
Water Cycle						
Water precipitation	Water evaporation	Water freezing	Water infiltration	Water release (during volcanic ejection)	Water absorption	Water pollution

Another example, erosion, is destruction and transfer of upper soil layers and rocks, it occurs in lithosphere and pedosphere and involves influence of hydrosphere and atmosphere. However, erosion is a part of *global 'circulation' of precipitations*, one of the elements in chain of accumulation, destruction and transfer of rocks (Fig. 3). Circulation of precipitations is global natural inter(supra)system process, too.

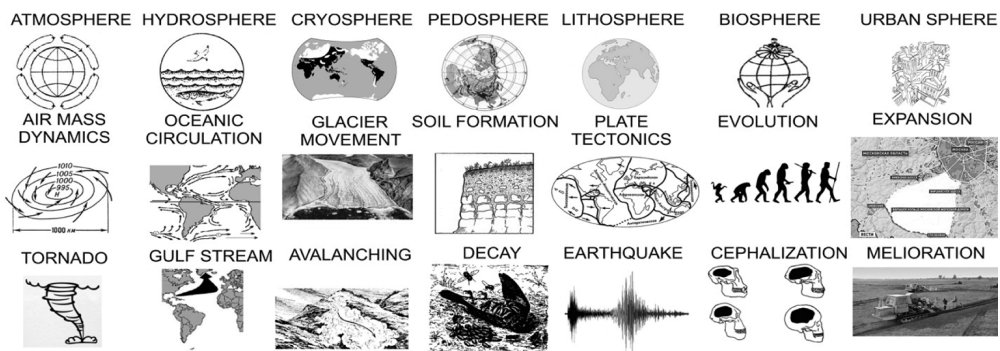
Fig. 3. 'Circulation' of precipitations as global natural intersystem process



There are many intersystem circulations, or cycles of global natural processes: cycles of oxygen, carbon dioxide, carbon, nitrogen and other elements and compounds.

In addition to general (suprasystem) global natural processes, there are also some specific processes (see Fig. 4). It should be noted, that many of natural processes are actually processes of socio-natural type. Everyone knows facts of floods, earthquakes, mudslides, avalanching, or dips of earth surface caused by human activity.

Fig. 4. Hierarchy of global socio-natural processes and systems



Studying of Globalization: Step by Step¹

Alexander N. Chumakov

The Phenomenon of Globalization

For adequate perception of modern reality it is important to understand, that before the beginning of the 20th century world history was represented as a number of separately developing civilizations, which had little influence on each other. The contemporary world has radically changed, becoming a single entity as a result of the process of integration of all spheres of social life, which were rapidly developing during the 20th century. As a consequence, under the influence of global processes and global problem that resulted from these processes, profound changes in the minds of some peoples and humanity as a whole began to take place. It has become more and more obvious that the global community has entered a new stage of its development that is radically different from the previous ones not only by a larger scale of changes but also by the dynamics and the universal character of these changes.

In the 1990s the whole complex of the changes and the reasons that lie at their root were called globalization. Globalization (lat. *Globus* – Earth, globe) today is seen as the process of universalization, the formation of common for the whole planet links, structures and relations in different spheres of social life. Moreover, globalization is seen as a phenomenon, when it is seen as an objective reality that manifests itself through the closeness of global space, a unified world economy, universal ecological interdependence, global communications system, *etc.* Due to this, it simply cannot be ignored.

Global Studies

Numerous efforts to understand new tendencies of the world development have resulted in the emerging of **Global Studies** – *an interdisciplinary sphere of scientific research aimed at understanding the meaning of globalization, finding its causes and development trends, analyzing globalization-engendered global problems and finding ways to sustain the positive and to overcome the negative circumstances of globalization with respect to people and the biosphere.*

It is important to highlight that Global Studies are not a specific science or a scientific discipline like numerous sciences emerging as a result of differentiation of scientific knowledge or at the intersection of nearby disciplines. Global Studies have been born thanks to integrative processes typical for modern science. It is a sphere of research and knowledge where various scientific disciplines and philosophy tightly interconnecting with one another analyze various aspects of globalization and the problems it engenders

¹ This article was first published under the title ‘The Phenomenon of Globalization’ in *3G: Globalistics, Global Studies, Globalization Studies: Scientific Digest* (edited by I. I. Abylgaziev, I. V. Ilyin). Moscow: MAKSS Press, 2012, pp. 54–67.

(each from the viewpoint of its subject matter and methodology). Global Studies should also provide solutions for global problems studied both separately from one another and as a holistic system.

Global Studies have become to emerge as an independent scientific field and a field of social practice in the late 1970s, however the objective ground for this has formed much earlier.

The Origins of Global Processes

The first evidence of modern globalization is found in the late 15th century; by the early 19th century it became a reality. It was the time of the Great Geographic Discoveries which formed a single geographic, and, to some extent, economic and political space. It was at the time when humanity switched from geocentric to heliocentric model of the Solar System, and was able to properly explain the alternation of day and night. Science, having been separated from philosophy became a great impulse for the accumulation of knowledge and the development of technology. It brought forth the scientific and technical progress and later the industrial revolution, which radically changed the transforming abilities of humanity and its relation with the environment.

The Great Geographic Discoveries of the 15th and 16th centuries significantly changed the course of history and led to the unprecedented expansion of the European politics. From this point the struggle for the colonies has become one more reason for the antagonism between the European states. It was the beginning of the new international economic and political relations, the mutual influence of different cultures and the expansion of Western European naval powers in the different parts of the newly discovered world.

Fundamental Globalization

The next stage of globalization was connected with the formation of planet-wide structures, ties, and relations. As a result, the world in almost all the spheres of social life became holistic. The first evidence of this kind of globalization, which can be named fundamental, can be found in the second half of the 19th century; by the middle of the 20th century it became reality.

At the same time a set of essentially new serious problems emerged which were triggered by the growing interconnection of different countries and peoples. These processes penetrated not only the economic, political and social life, but also culture, science and philosophy. Various international organizations, forums, conventions, congresses began to appear promoted by the development of mass communication.

By the beginning of the 20th century the world became an arena of struggle for the spheres of influence between the strongest states and big monopolies, which in the end led to World War I. Numerous peoples of the world, directly or indirectly, were involved in the military conflict. The economic and political interdependence that had emerged by that time on the global scale did not leave any chance for any significantly big country not to participate in the war or at least not to suffer from its consequences. The meaning was that starting from this point history seized to be only European or Russian, or Chinese history; it became the history of humanity as a whole, the truly world history.

The end of WWI in 1918 formed a new balance of powers on the world scene, the consequences of which were even tighter relations and contradictions between the states,

making the world a genuinely global community. As a result, in the period between WWI and WWII the processes of globalization developed even more; the main factors were the following:

- 1) The intensification of the anthropogenic influence on the biosphere and the transformation of people into a real 'geologic force';
- 2) The beginning of rapid development of mass culture (mainly cinema, music, literature, the production of mass consumption items);
- 3) Non-stop intercontinental flights for the first time ever 'shrank' time and space to the parameters of a person's everyday life.

However, unsolved contradictions and the intensification of universal interdependence led to the beginning of the World War II that became the most large-scale war in history. This time three fourth of the world population were involved in the conflict, and the casualties greatly surpassed WWI.

From the viewpoint of globalization of the world processes both wars were essentially different stages of a single *global war*. The crucial difference was only in the quantitative parameters. Both of them were aimed at solving the same problems – the re-division of an already divided holistic world. The level and scale of the technologies in World War II were considerably higher. Moreover, the ideological influence was significantly reinforced by the wide use of various means of communication that either did not exist in the previous war (radio) or were not sufficiently developed (aviation, marine, railway, and automobile transport).

WWII, same as WWI had a variety of fundamental consequences that became a distinguishing characteristic of the future world order. The main one was that the war stimulated the research and the creation of essentially new kind of weapons (atomic and missile), which opened for humanity unlimited possibilities for the total destruction and extermination of everything living. These very achievements of scientific-technical progress determined the specifics and the character of the arms race during the Cold War and showed how fragile and closed our planet is.

Another consequence of WWII and the result of the growing interdependence in the global world was the unprecedented growth of international organizations, the main of which was the United Nations. European integration also started with the end of WWII. The starting point can be named 1946 when the British Prime Minister Winston Churchill called for the creation of the United States of Europe.

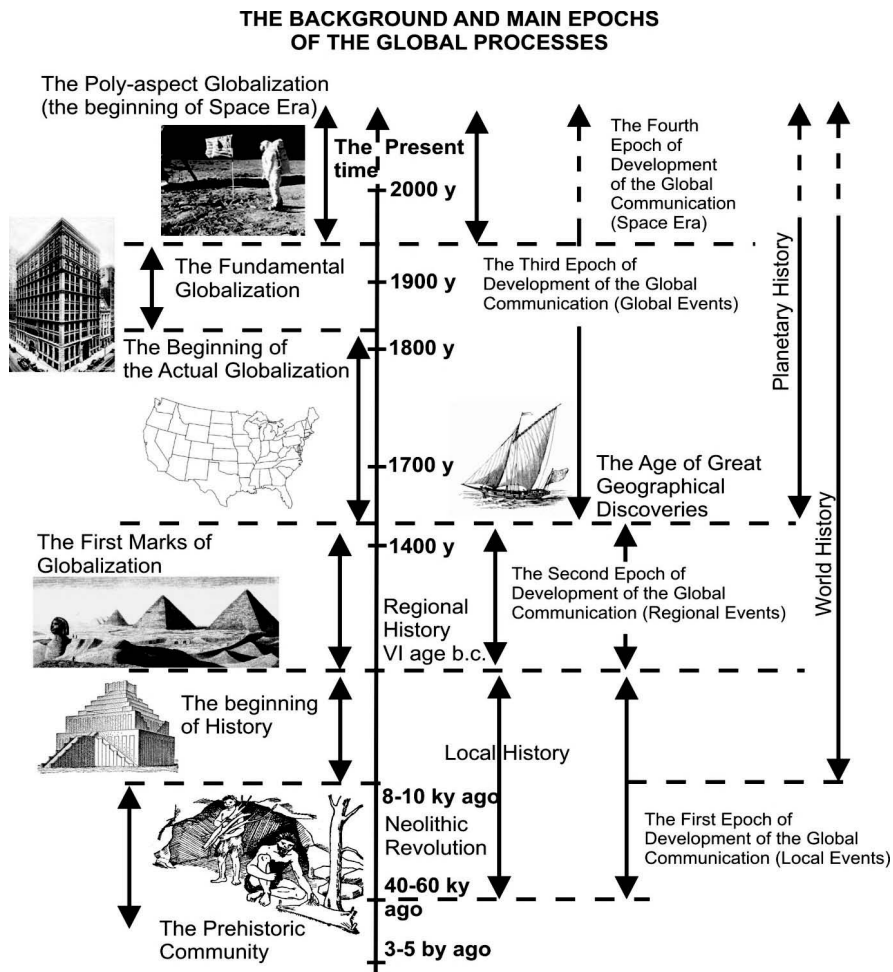
One more significant act and the first experience of global cooperation in the sphere of justice and regulation of international relations were the Nuremberg Trials on the prominent war criminals and main Nazi organizations. This process was conducted by the first in history international military tribunal that was created on August 8, 1945 by the winners – the USSR, the USA, Great Britain and France. It became an important step in the formation of the modern international justice system. In this exact period the ideas of liberalism and democracy massively spread and a series of significant research and theoretical works on the rethinking of the basis of social being, moral principles of society and the basic principles of social development were written (Fig. 1).

Multi-aspect Globalization

In the 1970s globalization entered a new stage of development and became multi-aspect. Its main characteristic is the realization by a wider mass of people of the global threats

and processes of globalization. Moreover, it is the formation of the global community, the corresponding values and lifestyle. This time is also characterized by the information revolution and the development of another form of social conscience – the global conscience.

Fig. 1. The background and main epochs of the Global processes (the picture is drawn by Ruslan Gabdullin)



Multiaspect globalization has substantially transformed the global market, gradually making the world economy more significant than national economies. The main characteristics of the global economy are:

- 1) the resonance effect when the economic upturns and downturns are transferred from one country to the other countries or regions that are closely connected with it;
- 2) the formation of a world market of different goods and services;
- 3) the formation of the world prices on the goods and services that determine the policy of national producers.

Along with the internalization of the economy and the unification of the role of money the distinguishing characteristic of the multispect globalization, its natural outcome, became the emerging of a mass society and a mass culture.

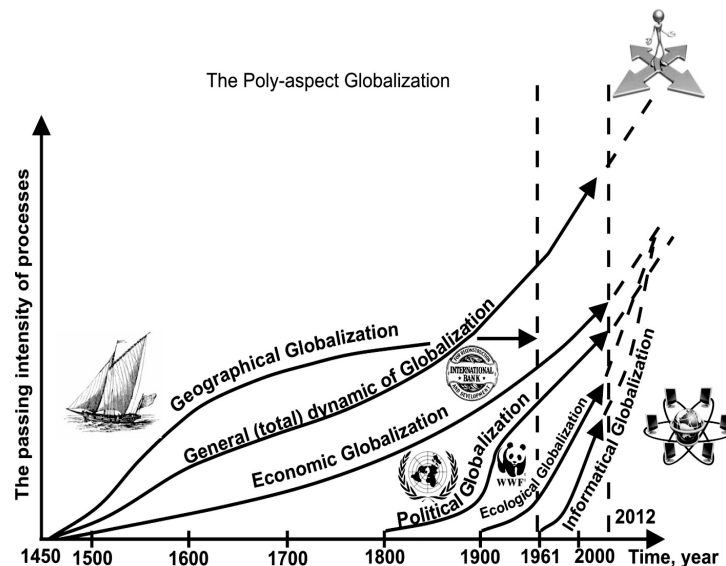
After the popularization of Internet in 1991, in the terms of information the world has become more interconnected by orders of magnitude. Computer revolution and the development of Internet have created new information medium without any boundaries.

Multiaspect globalization has also transformed politics. Thus, before the 1990s the main characteristic of international relations was the bipolar system, notable for the antagonism of two military and political alliances, which were in the state of the Cold War. After the collapse of the socialist system the situation has radically changed.

In the recent years along with activity of national states, the influence of new international actors has increased. These are so-called nontraditional actors of international relations that with their number and financial power and political influence can be compared to or even be stronger than certain countries. The most important of these actors of international relations are intergovernmental organizations, multinational corporations and international nongovernmental organizations. The most significant are the 'green' environmental groups, 'alter-globalists', anti-globalists, *etc.*

Having crossed the threshold of the new millennium, the world community has entered in a substantially new phase of historic development that can be characterized by the transition from fragmentation and dissociation of the world political, economic, social and cultural ties to their unity and globality (Fig. 2).

Fig. 2. The poly-aspect globalization (the picture is drawn by Ruslan Gabdullin)



Global Problems as a Consequence of Globalization

The processes of globalization brought new worries and essentially new (global) problems, which stemmed from the internalization of social life. As can be seen from the

above, global problems became a result of the centuries-long quantitative and qualitative transformations both in social development and in the 'society – nature' system.

It has also been established that the appearance and sharp aggravation of global problems in the second half of the 20th century is not a result of some miscalculation, somebody's fatal error or a purposely chosen strategy of socioeconomic development. Neither are they the whims of history or a consequence of nature's anomalies. The reasons for their appearance are rooted in the history of formation of modern civilization which provoked an extensive crisis of the industrial society and technocratic-oriented culture in general.

This crisis covered the whole complex of people's interaction with each other, fundamentally changed the relations between the person and society, society and nature, and touched directly the vital interests of the whole world community. It equally spread to the most remote parts of the planet, to the developing and developed nations. It is in the developed nations where the negative impacts of human activity on the environment have become evident earlier. Moreover, the problems here were much more acute due to the rapid and spontaneous development of the economy.

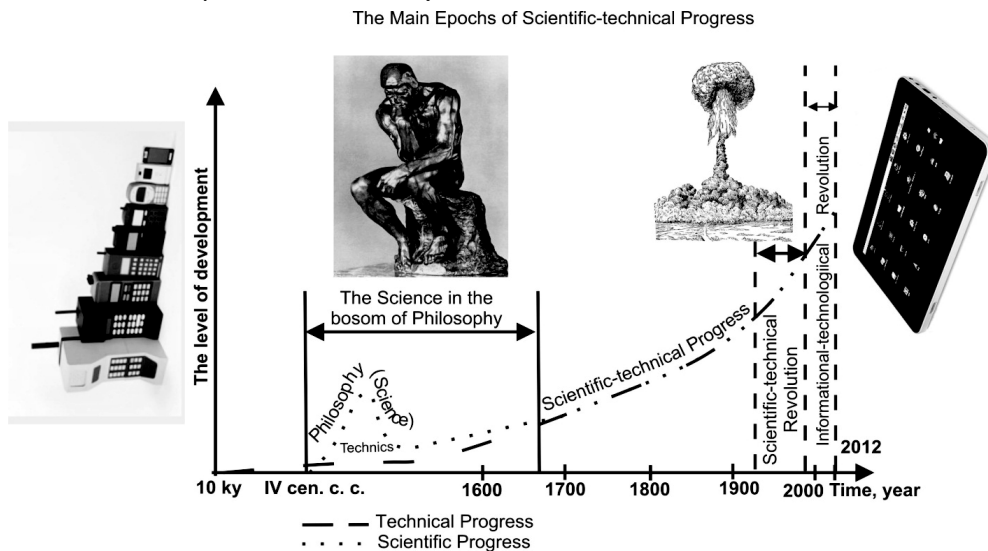
Increasing Rate of Social Development

The result of this kind of development was primarily the degradation of the environment that has uncovered a tendency of degradation of man himself. It is due to the inability of people's way of thinking, behavior and perceptions to adequately transform according to the changes around them. The reason for such an increased rate of development of social-economic processes was the purposeful and transforming activity of people, which was reinforced by the new discoveries in science and technology.

The humanity has spent almost 3 million years to move from verbal to written communication, about 5 thousand years to move from writing to typing, 500 years – to such audiovisual means of communication as telephone, radio, television, sound recording, *etc.*, and less than 50 years – to modern computers. It took only 10–15 years, which is extremely fast by historical measures, to acquire unlimited possibilities of communication with the advent of Internet and mobile phones. The time for implementing new inventions into practice has shortened dramatically – what before took years, now is month and weeks.

All of this gives us the right to call our planet 'a common home', 'an island in the Universe', 'a boat in a roaring ocean', 'a world village', *etc.*; and the problems which have become common for all people – global problems (Fig. 3).

Fig. 3. The main epochs of scientific-technical progress (the picture has been drawn by Ruslan Gabdullin)



Realizing Global Trends

Some trends of the changes in the world became the focus of attention of scientists and philosophers earlier than those changes became obvious. For example, long before the computer revolution the English historian Arnold J. Toynbee (1889–1975) who viewed historic development as a consecutive change of civilizations came to a conclusion that ‘in the 20th century a common history has begun’. It was highlighted that the dramatic changes were not only seen in the basis of the social order, but also in the main trends of global social processes.

One of the greatest representatives of German philosophy Karl Jaspers (1883–1969) was even more specific. In his work *The Origin and Goal of History* he wrote in particular: ‘Our historically new situation, for the first time having the decisive importance, represents the real unity of people on the Earth. Due to the technical facilities of modern means of communication our planet has become a single whole entirely available for a human, it became “smaller” than the Roman Empire used to be in the old days’.

World War II has put an end to the fragmentation of the world community. Just after the end of WWII Karl Jaspers wrote

From this very moment starts the world history as history of a single whole. From this point of view the whole previous history seems a range of scattered independent from each other attempts, a great number of different sources of human abilities. Now the world on the whole became the problem and the task. Thus a fundamental transformation of history takes place. Nowadays the conclusive is the following: there is nothing beyond the sphere of happening events. The world has enclosed. The globe has become indivisible. New dangers and opportunities are revealed. All essential problems have become world problems, the situation – has become the situation of the whole humanity.

The modern age has added such new philosophic questions as the common destiny of humankind and the problem of preserving life on the Earth to eternal problems of being and consciousness or the meaning of life.

Under the influence of the impressive results in the fields of science and technology in the 20th century the first technocratic social theories appear. One of the most famous authors of such a theory is an American economist and sociologist Thorstein Veblen. He was among the first who gave a philosophical explanation of the leading role of industrial production and technical advances in the development of society. He thought that the political power should be in the hands of engineers and technicians because only they can develop the production in the interests of society (this was the essence of the technocratic theory by Veblen). Thus, they need political power to achieve this goal.

This time was also notable for the emergence of serious worries about the dangers of the new trends. French philosopher Édouard Le Roy and theologian Pierre Teilhard de Chardin, which were the first to use the term ‘noosphere’, introduced new global concepts. But the leading role in the apprehension of modern problems of the mutual relation of humanity and nature belongs to Vladimir Vernadsky, who was the first one to point out the human being as a powerful geologic force and developed his original concept of noosphere. It is the stage of the development of biosphere, when humanity will take responsibility for harmonizing social and natural processes. Justifying the uniqueness of the human being as a part of biosphere Vernadsky called for the renunciation of egoistic goals for the consolidation of humanity. The scientist wrote: ‘The outcome of the world, the gates of the future, the entry into the super-human – these are not thrown open to a few of the privileged nor to one chosen people to the exclusion of all others. They will open only to an advance of all together, in a direction in which all together can join and find completion in a spiritual renovation of the earth’.

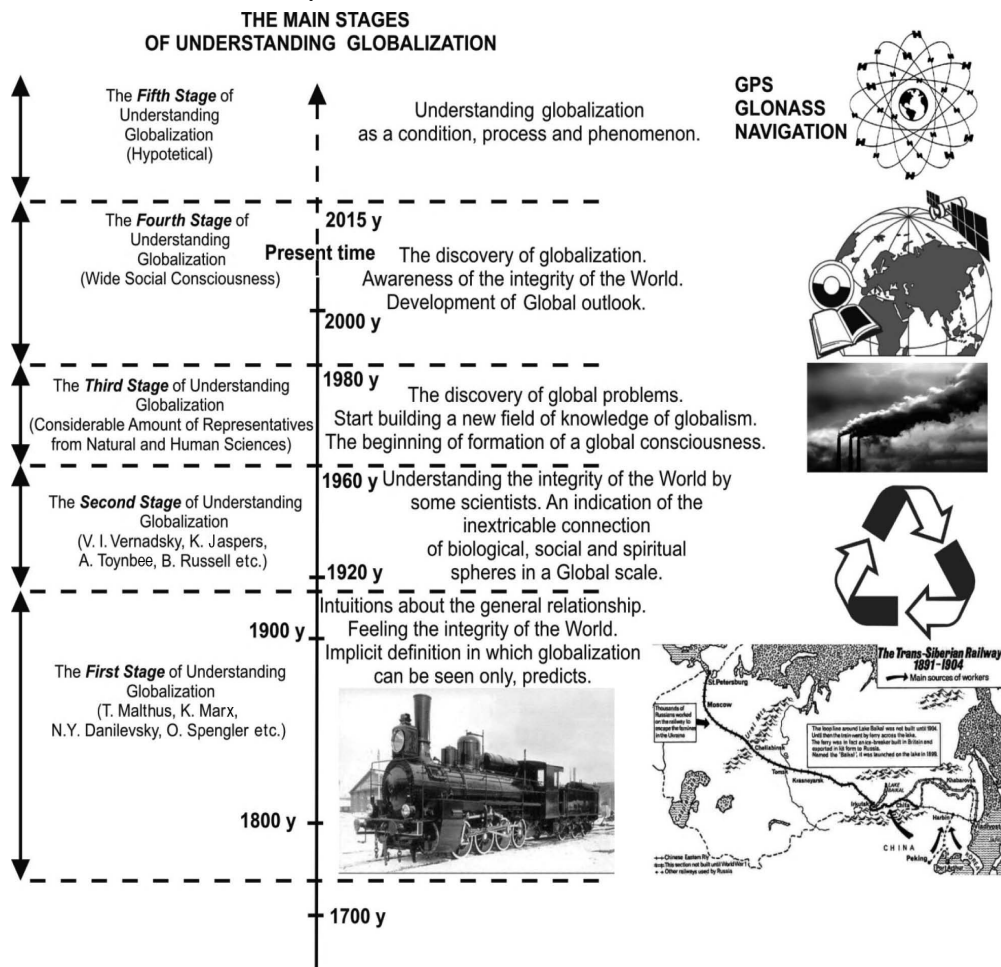
Therefore we can say that already in the first half of the 20th century some philosophers and scientists understood not only that a new era was coming – the era of global phenomena, but also that in these new conditions only by joint efforts people could withstand the new challenges of nature and society (Fig. 4).

Techno-optimism

By the early 1960s the concepts of the noosphere were overshadowed by a new wave of technocratic views and almost for 20 years they lost their influence on the mass consciousness. The reason for this was the industrial boom in almost all the developed countries in the post-war period. In the 1950s and 1960s the prospects of social progress seemed favorable both for the Western and Eastern countries. The concept of techno-optimism was beginning to form in social consciousness. It created an illusion that all of the earth and even space problems can be solved by the means of science and technology. Those viewpoints resulted in theories which declared ‘the consumer society’ the goal of social development. In the same period the concepts of ‘industrial’, ‘postindustrial’, ‘technetronic’, ‘information’ and alike society were actively developed.

In 1957, a famous economist and sociologist John Galbraith published a book *The Affluent Society*, the main ideas of which he developed in another work called *The New Industrial State*. He gave a positive evaluation of the scientific achievements of humanity and showed the deep transformation of economic and social structure which were triggered by these achievements.

Fig. 4. The main stages of understanding Globalization (picture is drawn by Ruslan Gabdullin)



Another American philosopher and sociologist, Daniel Bell, gave an outlook of the future world structure. Even before the emerging of Internet he said: ‘I am sure that information and theoretical knowledge are strategic resources of the post-industrial society. Moreover, in this new role they represent the turning points of history.’

One of the first of such turning points is the essential transformation of the very nature of science – from ‘universal knowledge’ to the *main driving force* of contemporary society. The second turning point was determined by the advent of new technologies, which in contrast to the technologies of the time of the industrial revolution were mobile and easily converted. Daniel Bell wrote in defense of techno-optimism: ‘Modern technologies open many different alternative ways for the achievement of unique and, at the same time various results. In addition, the production of goods is increasing. These are the prospects; the only question is how to make them real’.

Techno-pessimism

While some of the scientists paid some attention to the negative consequences of scientific and technical revolution, for example, to the pollution of the environment, on the whole there was no serious concern about this issue up until the 1980s. The possible reason is that the results of the almighty scientific and technical progress were too great to pay attention to the negative effects.

At the same time, from the end of the 1960s new problems posing threat to different countries and continents began to emerge. Some of them are the uncontrolled increase of the world population, the unbalance in economic development of different countries, finite fossil fuels, food supplies, *etc.* In a short time they became the main topic for discussion of science and philosophy.

The first attempts to make a philosophic analysis of these problems revealed some views opposite to techno-optimism, which were later called 'techno-pessimism'. If the attention is focused on the negative consequences of human activity and environmental problems, it is called 'eco-pessimism'.

Many famous scientists like Herbert Marcuse, Theodore Roszak and Paul Goodman spoke against the scientific and technical progress. They accused their predecessors of soulless scientism and the aspiration by the means of science and technology to enslave humanity. A new wave of protests against not only scientific and technical progress, but also against social progress was formed. Some of the ideas justified the society of 'anti-consumerism' and were aimed at persuading 'regular people' to reduce consumption. Among different causes of global problems one found 'modern technology' as the main one. Not only the scientific achievements, but the very idea of progress has been placed in doubt. Such calls as Jean-Jacques Rousseau's 'back to nature' could be heard. Moreover, it was suggested to 'freeze' and 'stop' the economic development.

The Club of Rome

The mentioned above views on the problem of technology and progress were greatly influenced by the activities of The Club of Rome. It is an authoritative international organization of philosophers, scientists, government officials and business leaders from around the globe. The Club of Rome was founded in 1968 in Rome, and its main goal became the publishing of reports on the most crucial universal problems of humanity. The first report 'Limits to Growth' published in 1972 'came as a bombshell' – it showed that the humanity is 'playing with matches sitting on a gunpowder barrel'. In the beginning of his report the founder and the president of the Club of Rome Aurelio Peccei wrote: 'Now, there is no sane person who believes that the good old Earth will be able to maintain rates of growth to fulfill the desires of humanity. Everybody understands that there are limits, but what are they – we still have to find out'.

The authors of the above mentioned report started the research on this topic. The main conclusions were that the limited size of the Earth means that the human expansion has its limits. Therefore economic growth cannot be eternal and the real limits of social development are determined mostly by ecological, biological and even cultural factors. Having built a computer model of the main trends of the world development, they came to the conclusion that if these trends are not changed, the humanity could

lose control over these processes, which would lead to an inevitable catastrophe. Their conclusion was the necessity to freeze the production and maintain its growth at the 'zero level'. Moreover the population growth has to be stabilized with the appropriate social policies.

Russian philosophers have made a significant contribution to the understanding of global processes and the problems they bring. Their views are mainly 'moderate' which mostly coincide with 'moderate techno-pessimism'. Some of the philosophers who stood at the origins of Russian Global Studies are I. Frolov, E. Arab-Ogly, E. Girusov, G. Gudozhnik, V. Los, N. Mamedov, V. Mantatov, A. Ursul, and G. Khozin, *etc.*

The Role of Philosophy in Global Studies

Connection of Science and Philosophy

Science always came to the aid of humanity in solving difficult problems. A lot of issues, that seemed insurmountable in the past, have been resolved with the help of science. Because of this, the first mentioning of the threat of global problems has drawn the attention of people to science and made scientists think about the ways to solve them.

This situation was not only unusual, but entirely new. Any single problem could be studied by a specific science or a few of them as a unit. On the other hand, global problems represent a complex system which includes the interconnection of human beings, society and nature, and therefore, cannot be studied by a single science. For this reason a philosophical view on the processes and the situation as a whole (including the final results) is necessary (Fig. 5).

Features of Philosophic Approach

Modern global problems form a very complex system dealing with people, society, and nature in their numerous interrelations, and consequently frameworks of concrete sciences are too narrow to see such objects of research as a whole, as a uniform system, in the context of modern global trends and contradictions generated by them. Without the philosophic view on the problems this approach cannot be effective even for the science as a whole. Philosophy not only provides cultural, methodological and moral basis for the corresponding decisions of some specific sciences, but also stimulates their interaction and interdisciplinary unification.

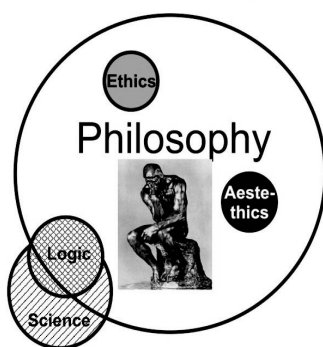
Within the framework of Global Studies in philosophy a number of basic problems are being solved:

- Forming the outlook, a certain view of the world and a person's place in it, global studies in philosophy set corresponding estimation tasks, which in many respects determine the direction of human activity; thus, their worldview and estimating functions are implemented;
- The methodological function of philosophy and generalizing theories that it generates, turn out to be extremely necessary for modern science as they promote integration of scientific knowledge;
- Philosophy helps to explain social phenomena and processes in their historical context; it formulates the most general laws of the development of society and nature and consequently in the course of studying of global processes it aims at understanding them

as a natural phenomenon integrally connected to social progress. The phenomenon of globalization and its consequences are thus considered not as an accident or demonstration of blind fate dooming humankind to destruction in advance, but as a result of an objective process of the conflicting development of the history of humankind.

Fig. 5. The relation between Philosophy and Science (the picture is drawn by R. Gabdullin)

The Relation between Philosophy and Science



– From the point of view of philosophy it is possible to see the general tendency and dynamics of the world processes development, and also the correlation and interaction of the problems generated by them;

– Philosophy also carries out a ‘culturology’ function as it enables us to develop a culture of theoretical thinking. Another aspect of this function is that studying the history of philosophy of various nations allows us to get acquainted with their customs, traditions, and culture, and none of the problems that this or that nation faces can be solved without this knowledge;

– The result of the holistic vision of the natural-historical process and a complex approach to its interpretation is the opportunity for a more precise orientation in the promptly increasing flow of scientific information on global problems;

– Philosophy deals with issues of human life, death, and immortality, and that becomes of special value and urgency when confronting the threats posed by global problems.

Finally, the important methodological function of philosophy is the development of such categories as Global Studies, global problems, nature, society, civilization, social progress, scientific and technical revolution, globalization, globalism, *etc.*, which are directly connected to the actual modern problems of humankind and are very important for comprehending the objective tendencies of the world development.

Main Currents of Global Studies

Like the other fields of scientific knowledge about social processes, Global Studies were affected by social and economic structure, politics and ideology. Based on this factor we can outline different currents of Global Studies. From the late 1960s till the 1990s the formation of Global Studies was under the influence of the confrontation between two ideologically hostile social and economic systems. It determined the two main currents of Global Studies – ‘Western’ and ‘Soviet’. In the last decade ideological confrontation

has transformed into economic, cultural, religious and national contradictions, which became the basis for the division of the world in several macro regions, maybe even international actors. Cultural and civilizational differences became the main reason for the contradictions in the modern world. Based on this, different currents of Global Studies based on the approaches to the global processes have emerged.

In the non-Russian Global Studies two directions emerged initially: the 'technocratic' one, within which the positive influence of science and technology on social life was obviously exaggerated, and the 'techno-pessimistic' one, making the technological progress, international capital and transnational corporations responsible for the negative consequences of globalization. Later their positions became closer and at the same time were differently corrected under the influence of different estimation of the prospects for the world market development; so, the indicated division is quite relative now. The representatives of the first have outlined the possibilities that science provides in resolving global problems. They pay the most careful attention to the scientific and technical progress and show its significance for the society (T. Veblen, G. Khan, W. Brown, D. Bell, A. Toffler, A. Touraine, A. Schaff, G. Friedriechs, A. Viener, H. Scott, D. Nesbit, E. Weizsäcker, L. Lovins, *etc.*). Techno-pessimists, on the other hand, blame scientific and technical progress, international capital and multinational corporations for the negative consequences of globalization and global problems (H. Marcuse, T. Roszak and P. Goodman, D. Meadows, K. Boulding, M. Roberts, K. Davis, A. Ehrlich, U. Beck, *etc.*).

A sizeable number of different approaches have emerged in Russia, which have been favorably received in scientific and specialist literature. The most important of them are as follows:

1) The philosophical-methodological approach which studies the philosophical bases, essence and genesis of global processes and analyses the most important socio-political and economic transformations necessary for the effective solution of the problems resulting from them. Here of particular note are the works by V. Vernadskiy, I. Frolov, N. Moiseev, D. Gvishiani, V. Zagladin, G. Khozin and others.

2) The socio-natural approach encompasses a wide range of problems of which the greatest concern and worry is caused by ecology, the safeguarding of raw materials for humankind, energy, water and land resources. In this field noted influence is exerted by the works of authors such as V. Vinogradov, N. Reimers, I. Gerasimov, V. Anuchin, A. Ursul, N. Kasimov and others.

3) The culturology approach, where the center of attention is constituted by problems arising as a result of the influence of globalization processes on various spheres of culture, the mass media, value criteria, mass consciousness, *etc.* (S. Kapitza, N. Kasimov, G. Gudozhnik, E. Markaryan, V. Mezhuev, A. Katsura, *etc.*)

In recent years within the Globalization Studies one may note new tendencies. This trend is typical for specific scientific disciplines and philosophy in different countries and on different continents. For example, although at the last World Philosophy Congresses in Brighton (1988), Moscow (1993), Boston (1998), Istanbul (2003) and Seoul (2008) globalization was not directly talked about, nevertheless, their Programs always included panels and roundtable discussions on world problems. Now, at the 21st Congress in Istanbul, this topic not surprisingly becomes central.

In the recent years in Russia scientific research on the topic has also been carried out. It is important to highlight the productive work of the scientific club 'Global World'. Moreover, a significant contribution was made by a large group of scientists and specialists in creation of the international, interdisciplinary encyclopedic dictionary and encyclopedia *Globalistics*; the creation of Faculty of Global Studies in Lomonosov Moscow State University, on the basis of which international congresses and conferences are held.

In a broader sense today the term 'Global Studies' determines the whole totality of scientific, philosophical, culturological and applied investigations of different aspects of globalization and global problems including the results of such investigations and also practical activity aimed at their realization in economic, social and political spheres both at the level of separate states and on the international scale.

Global Studies within the Framework of Modern Scientific Knowledge

Global Studies are not a specific science or scientific discipline because they were born thanks to integrative processes typical for modern science. Therefore the question of the subject, matter, method, goal and conceptual apparatus lies in a different plane as compared to this or that concrete field of science. In particular, its subject cannot be determined unambiguously though in a simplifying way, one can define its subject as the world integrity, humanity as a whole or the whole biosphere with its basic element – the human being. The same is referred to the conceptual apparatus of Global Studies which (at the philosophical-methodological level) will be indivisible to a certain extent only, in other respects it becomes 'diffused' in separate sciences. Speaking about methods or goals of Global Studies, attention should be paid to the fact that besides defining some basic approaches, one should enumerate not only separate sciences and their contribution to the research of the appropriate problems but also reveal the way philosophy, culture studies, politics and ideology are involved in Global Studies what makes the solution of such a task, admittedly, almost unachievable.

One more significant difference of Global Studies from concrete scientific disciplines consists in the fact that the comprehension of global tendencies and a principal overcoming of the problems caused by them require not only theoretical investigations but corresponding effective practical activities. Global Studies thereby, impartially fulfill the integrative role in the sphere of science and practice making many scientists, politicians and public people consider the contemporary world in a new way and realize their involvement into the common fate of the humanity. It suggests that globalization and problems it causes do leave no other choice for the humanity than through overcoming the fragmentation and difficulties to come to its unity saving the originality of cultures, century-old traditions and basic values of separate nations and peoples whenever possible. But such a unity and coordination of actions can be provided only by the appropriate understanding of processes and events happening in the modern world whose knowledge is developed and formed in Global Studies where the short-term aims and long-run prospects are considered in close interconnection.

Political Globalistics¹

Leonid E. Grinin and Andrey V. Korotayev

The globalizing world needs more and more the globalizing social knowledge. That is why we experience such an acute deficit in productive metaconcepts and macromethods that could make it possible for us to study the development of both polities and suprapolitical systems in the global temporal and spatial perspective, that would provide us with a reliable methodology of the connection between the micro- and macrolevels, between the local and the global, with an instrument allowing to compare political systems in an objective way using various parameters, to detect macrotrends within the enormous historical diversity, to identify causal hierarchies affecting processes of political globalization, and so on.

In recent years Political Globalistics in Russia has been developing within a number of important dimensions. The world-system perspective was among them.

Fig. 1. Covers of some Russian books devoted to the World System development



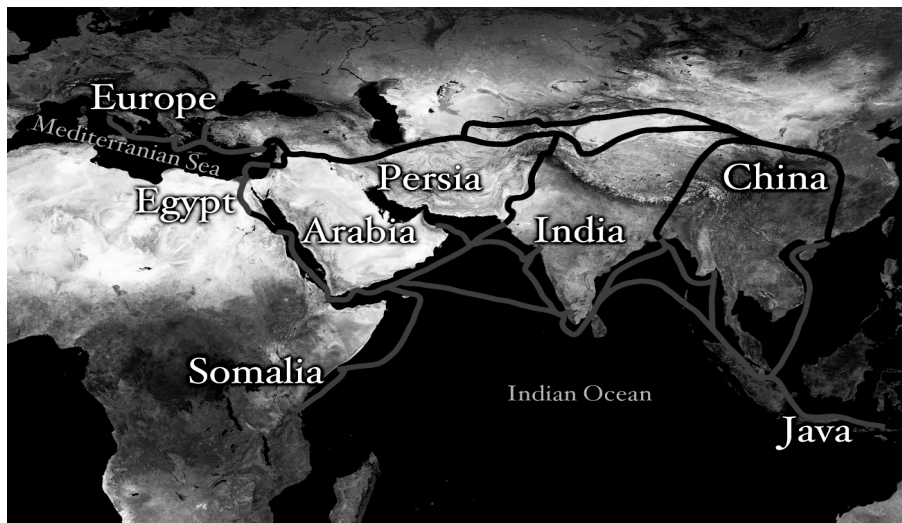
The notion of the ‘world-system’ can be defined as a maximum set of human societies that has systemic characteristics, a maximum set of societies that are significantly connected among themselves in direct and indirect ways. It is important that there are no significant contacts and interactions beyond borders of this set, that is there are no significant contacts and interactions between societies belonging to the given world-system and societies belonging to the other world-systems.

Within this framework ‘world-system’ can be characterized as a supersystem that unites many systems of lower orders, such as states, stateless societies, various social, spatial-cultural, and political entities – civilizations, alliances, confederations, *etc.* In general, the larger the size and internal diversity of a social system is, the more internal links it has, the more complex those links are, and (*ceterum paribus*) the higher the speed

¹ This article was first published in *3G: Globalistics, Global Studies, Globalization Studies: Scientific Digest* (edited by I. I. Abylgaziev, I. V. Ilyin). Moscow: MAKS Press, 2012, pp. 113–125.

of its development is. Due to this we observe different speeds of development in societies belonging to world-systems and isolates, in the main ('central', Afroeurasian) world-system and peripheral (*e.g.*, American) world-systems (prior to their incorporation into the World System).

Fig. 2. The Afroeurasian world-system in the 11th century CE



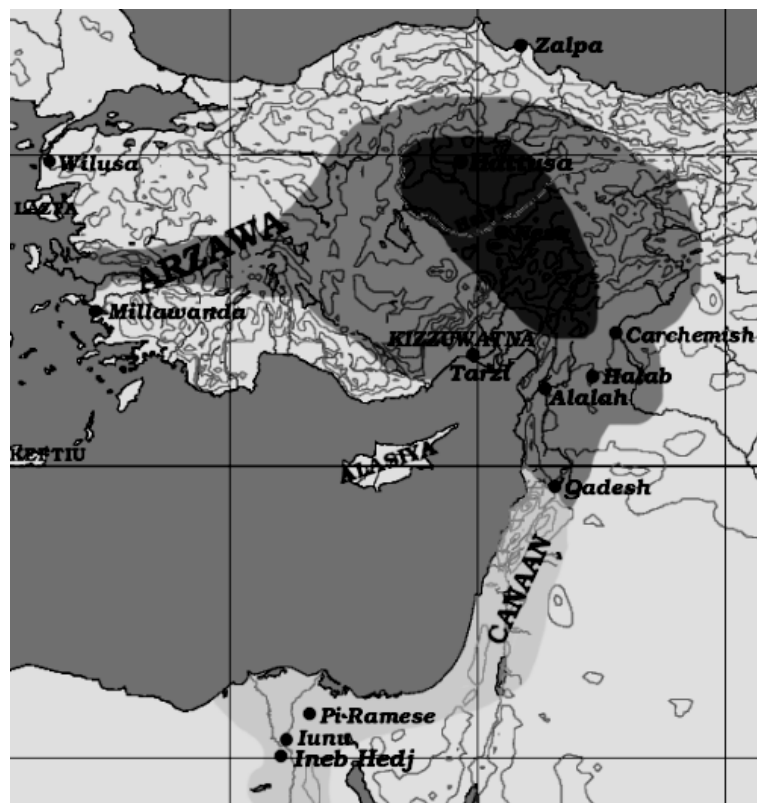
Source: http://en.wikipedia.org/wiki/File:Silk_route.jpg.

A formal criterion that allows us to regard the Afroeurasian world-system as the World System is the point that throughout its whole history this world-system encompassed more territory and population than any other contemporary world-system; what is more, for the last few millennia it encompassed more than a half of the world population and this appears to be a sufficient criterion permitting to denote this world-system as the World System. Another point that appears of no less importance is that the modern World System that actually encompasses the whole world was formed as a result of the expansion of that very system which is denoted as the World System (and that up to the late 15th century was identical with the Afroeurasian world-system).

Today it is clear that it is very productive to search for the origins of political globalization in the depths of history. It is no coincidence at all that the growing interest in globalization has promoted interest in the trend often denoted as 'historical dimension of globalization'. Russian analysts of political Globalistics have demonstrated that the start of globalization may be connected with the early phases of the Agrarian Revolution, when one could observe the Afroeurasian world-system (= the World System) expansion and the formation of rather effective informational, cultural, and even trade links between its parts. They have also found out that for the period of the World System formation the most important role was played by information links (and especially by the diffusion of innovations). The presence of the pan-World System information network secured the diffusion of innovations throughout it. In general, the processes of innovation generation and diffusion played an immensely important role during the whole history of the World

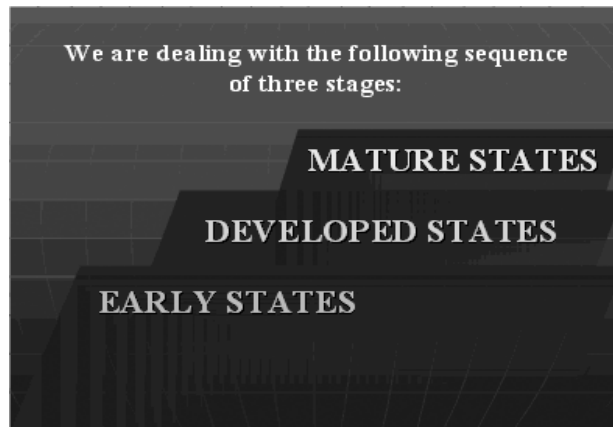
System. The world-system approach makes it possible to see that the roots of what is called Geopolitics now are hidden deep in history. For example, the start of the modern global cycles of political hegemony may be traced at least to the 2nd millennium BCE (*i.e.* to the hegemonic struggles between Assyria, Mitanni, the Hittite Empire, Egypt, and other Near Eastern states). This hegemony struggle in the 2nd millennium BCE World System core moved to a new level with the clash between the New Kingdom of Egypt and the Hittite Empire.

Fig. 3. The maximum extent of the Hittite Empire ca. 1300 BC (grey), bordering on the Egyptian Empire (light grey). The Hittite Old Kingdom is shown in darker grey

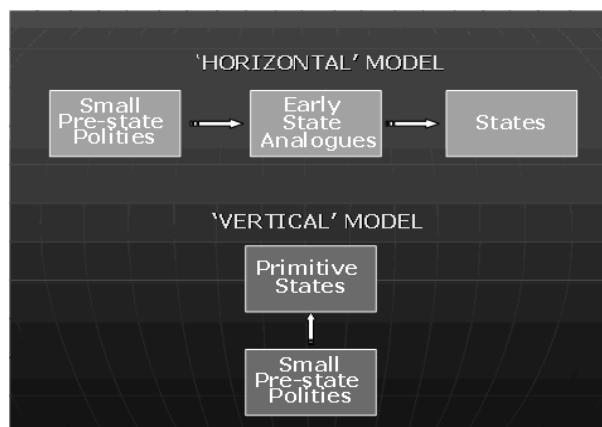


Source: http://en.wikipedia.org/wiki/File:Hittite_Empire.png.

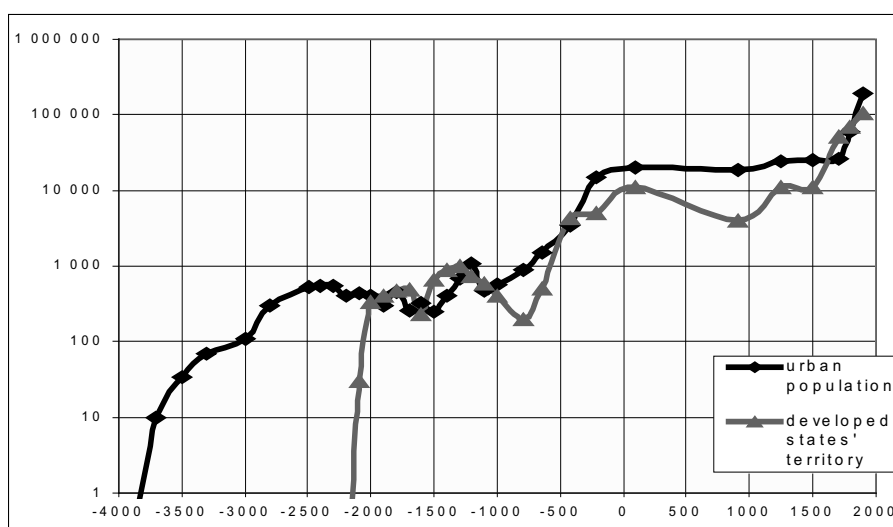
Russian political Globalistics analysts have found out that there is a rather tight correlation between the start of the epoch of the ancient World System hegemonic struggles and the transition to a new evolutionary level of the statehood – to the developed statehood. These Russian analysts have described the total process of genesis and transformation of the world political structures. They have developed a three-stage model of the macroevolution of the World System statehood (early – developed – mature state) that describes the main features of political macroevolution better than the two-stage model proposed by Claessen and Skalník (early – mature state).

Fig. 4. The 3-phase model of the global political development

This model has been used as a basis for the analysis of changes in the global development of political structures from the pre-state polities and the most primitive early states (and their analogues) till the modern supercomplex states. The power emerges together with human society. However, the political power was institutionalized within human societies much later. In the hunter-gatherer societies this institutionalization was still absent. Only with the emergence of agriculture during the very prolonged late archaic and early civilization periods one could observe the separation of political sphere from society including the beginning of specialization in the field of political management which in fact can be considered as the origin of politogenesis. The first medium complexity polities (chiefdoms and their analogues) emerged. The transition to statehood appears to be one of the most crucial changes in the human historical development. Russian political Globalistics analysts present a new approach to the causes and models of the emergence of the state. The matter is that within the politogenesis process in addition to the state formation one could also observe the formation of polities which were comparable with the early state in their complexity level and performed functions, but still lacked a number of early states attributes. Such polities are denoted as early state analogues. Thus, Russian analysts describe two models of state formation at global scale: 'vertical' (when the state emerges from pristine pre-state polities) and 'horizontal' (when the state emerges from an early state analogue which is equal to the state with respect to its volume and functions).

Fig. 5. Two main models of the state formation process

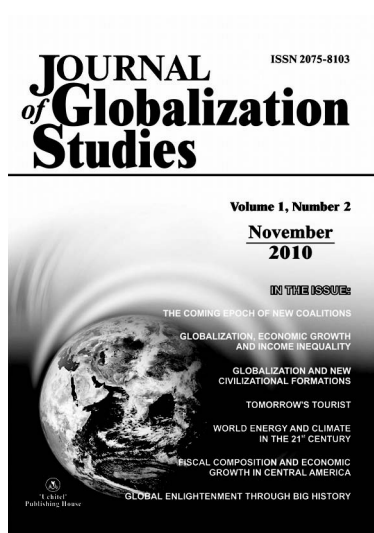
The following global political evolution is connected with the above-mentioned sequence: early – developed – mature states. Early states are insufficiently centralized states with underdeveloped bureaucracy, their flourishing took place in the period of Ancient World history and the most part of the Middle Ages. The developed states are centralized estate-corporative and bureaucratic states of the Late Antiquity, the Middle Ages and Early Modern Age. The mature states are the states of the industrial epoch with rational type of law and government where the classes of industrial society and modern type of nation have formed. Russian global analysts ascertain the strong correlation between global trends of political, historical and other global trends (technological, demographic, urbanization, *etc.*).

Fig. 6. Dynamics of world urban population (thousands) and the size of the territory controlled by the developed and mature states (thousands km²), till 1900 CE (logarithmic scale)

A very important conclusion has been made by Russian analysts with respect to modern transformations of statehood. They found out that when in the 1950s and 1960s the USA and a number of European states started their transformation into welfare states / mass consumption societies this implied the process of changing the mature class state into the mature *social* state. Later, when in the 1980s and 1990s globalization became much stronger, the mature social state began to develop into something different.

This leads Russian analysts to an analysis of interesting problem tightly connected with the globalization issue: why states lose their sovereignty and why they voluntary renounce their sovereign prerogatives.

Fig. 7. An issue of 'Journal of Globalization Studies' with a discussion of the 'globalization and state sovereignty' problem

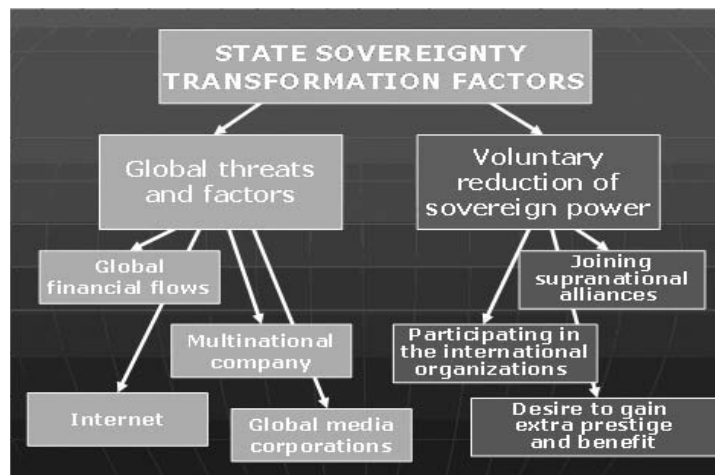


The process of globalization undoubtedly contributes to the change and reduction of the scope of state sovereign powers. Much has been said about the ways globalization strengthens the factors that objectively weaken the countries' sovereignty. The list of threats to state sovereignty often includes global financial flows, multinational corporations, global media empires, the Internet, *etc.* and, of course, international interventions, as we have recently seen in Libya. At the same time (note that this point is debated surprisingly little and occasionally), since the end of World War II, increasingly more states have been willingly and consciously limiting their sovereign rights, including the rights: to determine the size of taxes and duties, to emit money, the right of supreme jurisdiction, the right to use capital punishment, to proclaim certain political freedoms or to limit them, to establish fundamental election rules, *etc.* So there is no doubt that today the completely free and independent countries' sovereignty has become much smaller. And what is extremely important, many countries quite often give away a part of their sovereign powers voluntarily indeed. In the opinion of Russian analysts, the factor of voluntariness in reducing one's own authority is, no doubt, the most important one in understanding the future of the state.

What stands behind voluntary self-limitation of sovereignty prerogatives? There are several reasons for such voluntariness and ‘altruism’, including the fact that such a restriction becomes profitable, as in return the countries expect to gain quite real advantages especially as members of regional and interregional unions. Besides, the world public opinion must be pointed out as an important cause of sovereignty reduction: the wider is the circle of countries voluntarily limiting their sovereignty, the more inferior appear those states, which do not make such restrictions.

However, it is worth noting that the voluntary reduction of sovereignty is more characteristic of Western countries. The transformation of sovereignty in countries with different cultural traditions proceeds with more difficulty and also is closely connected with the level of economic development. *Nevertheless, the transformation of sovereignty proceeds in this or that way almost in all countries.*

Fig. 8. State sovereignty transformation factors

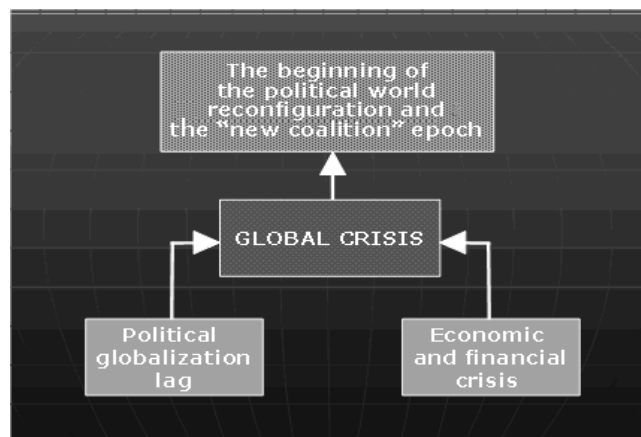


Much attention has been also devoted by Russian political scientists to the analysis of probable future political transformations in relation to the modern financial-economic crisis and the forecasts of socioeconomic and political development of the world in the forthcoming decades.

Within the framework of the analyses of the World System future development Russian political Globalistics analysts attempt to answer the following questions: What are the implications of the economic weakening of the USA as the World System center? Will the future World System have a leader? Will it experience a global governance deficit? Will the world fragmentation increase? They analyze some crucial events of the present, which could be regarded as precursors of forthcoming fundamental changes. They analyze some crucial events of the present, which could be regarded as precursors of forthcoming fundamental changes (see below). They also consider some global scenarios of the World System's near future. During the struggle for a place in organizing and operating the new world order, an *epoch of new coalitions* will come, which will outline the contours of a new political landscape for a considerably long period. Probably, for some time the mobility of partnerships within the World System will increase, the arising coalitions may

turn out to be chimerical, ephemeral, or fantastic. In the course of search for most stable, advantageous, and adequate organizational supranational forms various and even rapidly changing intermediary forms may occur, where the players of the world and regional political arenas will search for most advantageous and convenient blocks and agreements. However, some of new unions and associations may eventually turn from temporary into constant ones and take specific supranational forms. So a new world order gradually will be established. These will be such changes that could prepare the world to the transition to a new phase of globalization (it will be a great success if this is the phase of sustainable globalization) whose contours are not clear yet.

Fig. 9. Global crisis and global political transformations



The turbulent events of late 2010 and 2011 in the Arab World confirm that the world will encounter very serious changes in the forthcoming decades.

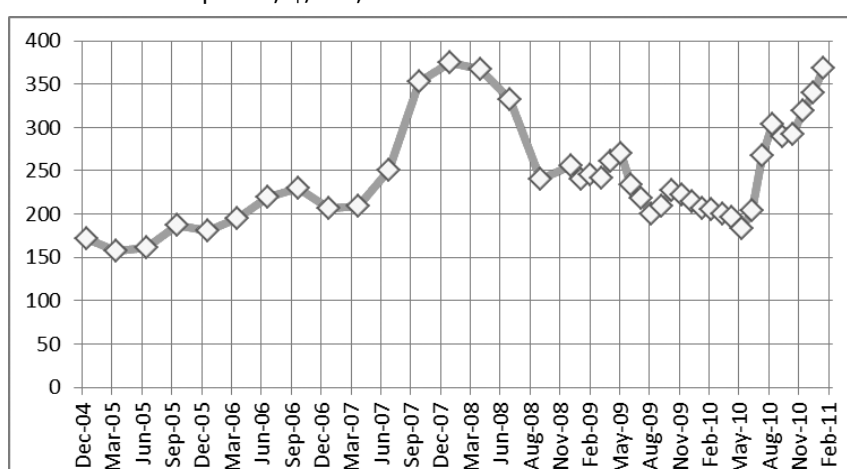
Fig. 10. The 'Day of Revolt' on 25 January 2011 in Cairo



Source: http://en.wikipedia.org/wiki/File:Day_of_Anger_marchers_in_street.jpg

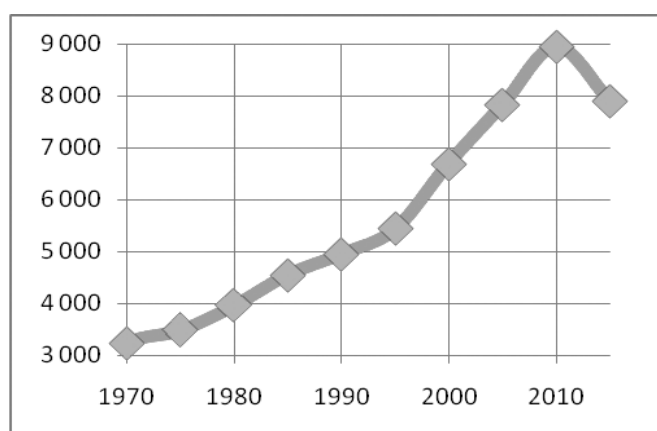
Forms of their realization may be rather different – ranging from slow and unapparent to sharp and sudden. When considering the Arab revolutions, one may indicate a whole set of their factors – both objective and subjective, local and global, logical and random. On the one hand, it is clear that a certain role has been played here by the global crisis. Note, that it contributed significantly to the synchronization of political upheavals in different countries. A special role here was played by ‘agflation’ (a global steep rise of the agricultural commodity prices [see Fig. 9]):

Fig. 11. World wheat prices, \$/ton, 2005–2011



An especially important role was played by the high proportion of the youth in the population (the so-called ‘youth bulge’) and a sharp growth of the young population in recent years. Consider, for example, the dynamics of the number of Egyptians aged 20–24 in recent years (see Fig. 12):

Fig. 12. The Number of Egyptian youths aged 20–24, thousands, with forecast till 2015



Notwithstanding all the understandable factors (including those that have not been mentioned above), it is difficult not to notice that those factors do not appear to be sufficient to account completely for a striking synchronicity of the respective sociopolitical explosions. Note that the level of poverty in almost all the countries affected by the Arab Spring is not really high for the Third World. It is clear that we are dealing here with the effect of the revolutionary influence of some countries on some other countries (especially, the ones that are similar in their languages and cultural characteristics), which was sometimes already observed in history. For example, this effect was observed as regards 1848–1849 revolutions in Europe, national liberation revolutions in Latin America in 1825–1830, revolutions in Communist countries in Europe in 1989–1991.

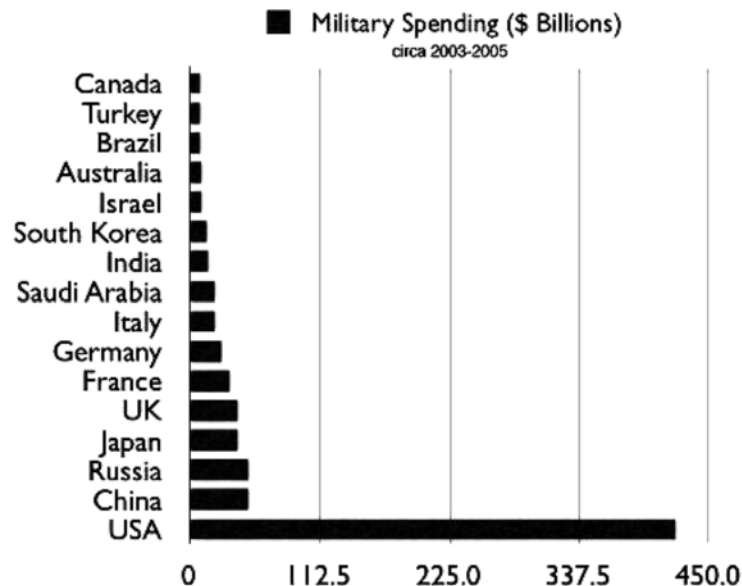
However, what is especially important is that here we are dealing with the effect of the *start of the global reconfiguration*. The respective changes will take place in various (and sometimes unexpected) forms that can involve whole sets of social systems.

Today we observe the weakening of the economic role of the USA as the World System center; in a more general sense we observe the weakening of the World System core countries as a whole. That is why there is no doubt that sooner or later (in any case in the foreseeable future) the USA's status as the World System's leader will change and its role will diminish. American analysts are worried by this more than anyone else. The current crisis is an important step toward the present leader's weakening. Russian global political scientists proceed from the idea that former priorities and foundations of the world economic order which were based on making profits for the USA will sooner or later start to transform into a new order. In the foreseeable future such a transformation will constitute collisions of relations between US national interests, on the one hand, and the general world interests, on the other.

However, such a collision will lead to very important transformations, which, unfortunately, tend to be ignored. There is a general universal tendency to believe that in the proximate future, the USA's current tenuous leading position will be occupied by the European Union, China, or some other country (from India to Russia). But to model the World System transformations mostly with regard to a change of its leader is a serious mistake. Today we are dealing not only with a crisis in the World System or even with a crisis of the World System core; rather, we are dealing with a crisis of the established model of its structure which is based on having a leader who concentrates *many aspects of leadership (political, military, financial, monetary, economic, technological, ideological, and so on)*.

One should point out that the US world leading position is unique in history. The simple change of the World System leader is rather unlikely already due to the fact that *no country will be able to occupy the position of leadership in a way that is equivalent to the one held by the USA today, as no country will be able to monopolize so many leadership functions*. Only as a result of this factor (although there is a number of other important factors), the loss of the leading role by the USA will mean a radical transformation of the World System as a whole.

Thus, according to opinions of Russian global futurologists it is evident that a place similar to the one held by the present-day USA cannot be occupied in future, neither by another state nor by an alliance of states. The functions of the World System leader can only be performed by a country that achieves dominance in ideas or ideology, an economic system and military power.

Fig. 13. US military spending in comparison with other states

However, in the foreseeable future, there will be no country (nor even an alliance of countries) that will be able to concentrate several aspects of the World System leadership.

It is often proposed that China will replace the USA as the new World System leader. Some Russian political scientists suppose that this function is not likely to be performed by China even if China eventually surpasses the USA with respect to its GDP volume. Those who suggest China as such a leader do not appear to take into consideration that its economy is not adequately innovative, that it does not develop on the basis of technologies of tomorrow (and, to some extent, even of today). In addition, the Chinese economy is too much export-oriented. The economic center of the World System cannot be based on the exporting of non-innovative (and even not sufficiently highly technological) products. Besides, the Chinese model is very resource-intensive which makes it dependent on the opportunities of extending world raw materials production and their prices. And what is more important, the economic growth in China is based to a great extent on inadequate technological basis.

In order to perform the World System center role, the Chinese economy should become, on the one hand, innovative and highly technological (which is hardly compatible with heavy industry, or conveyor industries), and ecologically advanced – on the other hand. However, China does not possess necessary conditions for this.

The Chinese economy, with all its achievements, remains generally extensive and, based on the consumption of excessive numbers of various resources and funds and with respect to the attendant investment gain, will become more and more ineffective. The transition to such an economic model that is focused on internal consumption and technological innovation is further complicated by the following points: a) the growth of internal consumption implies the acceleration of the growth of the living standards and Chinese labor costs (that are growing anyway); b) the growth of the labor costs is not likely to be compensated

by an adequate increase in labor productivity (as this happened before); c) consequently, the costs of exported commodities may increase, their competitiveness may fall, while the attractiveness of investments in China will then decrease. Some Russian global analysts believe that it will be impossible to reconstruct the Chinese development model and GDP growth rates will slow down soon. As a result, the same processes may start that were observed in Japan after 1975.

Fig. 14. Shanghai World Financial Center



Fig. 15. Dismantling Computers in South China



Source: http://en.wikipedia.org/wiki/File:0352_20090626_Shanghai.jpg

In whole Russian global political scientists forecast that the nearest one or two decades will be quite turbulent. They regard the events of late 2010 and 2011 in the Arab World as a start of the global reconfiguration. They also forecast transition to the new world order through the period named by them as ‘the epoch of new coalitions’, which will outline the contours of a new political landscape for a considerably long period. These will be such changes that could prepare the world to the transition to a new phase of globalization (it will be a great success if this is the phase of sustainable globalization) whose contours are not clear yet. Thus, the future World System will not be able to possess the same structure as the current one with an equally strong center. We are on the eve of a very complex, contradictory, and long process of the formation of a new world order; the state will not disappear within it, but its features and functions will change significantly.

Selected further reading

Abylgaziev, I. I., Ilyin, I. V., and Kefeli, I. F. 2010. (Eds.). *Global Geopolitics*. Moscow: Moscow University Press. *In Russian*.

Chumakov, A. N. 2010. *Philosophy of Globalization*. M.: MAKSS Press.

- Grinin, L. E. 2008.** Globalization and Sovereignty: Why do States Abandon Their Sovereign Prerogatives? *Age of Globalization* 1: 22–32.
- Grinin, L. 2008.** Early State, Developed State, Mature State: The Statehood Evolutionary Sequence. *Social Evolution & History* 7(1): 67–81.
- Grinin, L. 2009.** The Pathways of Politogenesis and Models of the Early State Formation. *Social Evolution & History* 8(1): 92–132.
- Grinin, L. E. 2011.** *The Evolution of Statehood. From Early State to Global Society*. Saarbrücken: Lambert Academic Publishing.
- Grinin, L. E. 2011.** The Chinese Joker in the World Pack. *Journal of Globalization Studies* 2(2): 7–24.
- Grinin, L. E. 2012.** *Macrohistory and Globalization*. Volgograd: Uchitel.
- Grinin, L. E., and Korotayev, A. V. 2006.** Political Development of the World System: A Formal Quantitative Analysis. In Turchin, P., Grinin, L., Korotayev, A., and de Munck, V. (eds.), *History and Mathematics. Historical Dynamics and Development of Complex Societies* (pp. 115–153). Moscow: KomKniga/URSS.
- Grinin, L. E., and Korotayev, A. V. 2009.** The Epoch of the Initial Politogenesis. *Social Evolution & History* 8(1): 52–91.
- Grinin, L. E., and Korotayev, A. V. 2009.** Social Macroevolution: Growth of the World System Integrity and a System of Phase Transitions. *World Futures* 65(7): 477–506. URL: <http://www.informaworld.com/smpp/title~db=all~content=t713393663~tab=issueslist~branches=65-v65>.
- Grinin, L. E., and Korotayev, A. V. 2010.** Will the Global Crisis Lead to Global Transformations. 1. The Global Financial System: *Pros and Cons*. *Journal of Globalization Studies* 1(1): 70–89.
- Grinin, L. E., and Korotayev, A. V. 2010.** Will the Global Crisis Lead to Global Transformations? 2. The Coming Epoch of New Coalitions. *Journal of Globalization Studies* 1(2): 166–183.
- Grinin, L. E., and Korotayev, A. V. 2011.** The Coming Epoch of New Coalitions: Possible Scenarios of the Near Future. *World Futures* 67(8): 531–563.
- Korotayev, A. V. 2006.** The World System Urbanization Dynamics: A Quantitative Analysis. In Turchin, P., Grinin, L., Korotayev, A., and de Munck, V. (eds.), *History and Mathematics. Historical Dynamics and Development of Complex Societies* (pp. 44–62). Moscow: KomKniga/URSS.
- Korotayev, A. V. 2007.** Compact Mathematical Models of World System Development, and How they can Help us to Clarify our Understanding of Globalization Processes. In Modelski, G., Devezas, T., and Thompson, W. R. (eds.), *Globalization as Evolutionary Process: Modeling Global Change* (pp. 133–160). London: Routledge.
- Korotayev, A. V., and Grinin, L. E. 2006.** Urbanization and Political Development of the World System: A Comparative Quantitative Analysis. In Turchin, P., Grinin, L., Korotayev, A., and de Munck, V. (eds.), *History and Mathematics. Historical Dynamics and Development of Complex Societies* (pp. 115–153). Moscow: KomKniga/URSS.
- Korotayev, A., Malkov, A., and Khaltourina, D. 2006.** *Introduction to Social Macrodynamics: Compact Macromodels of the World System Growth*. Moscow: KomKniga/URSS.
- Kosov, Y. 2006.** *Political Globalistics*. Moscow: Gardariki. In Russian.
- Mazour, I. I., Chumakov, A. N., and Gay, W. C. 2003. (Eds.).** *Global Studies Encyclopedia*. Moscow: Raduga.

Section 3. GLOBAL STUDIES PROGRAMS AND SYLLABI AROUND THE WORLD

University of Graz and Other Eighteen Universities' Curricula for Global Studies: Comparisons and Improvements

Lena Bader, Tabea Bereuther, Elisabeth Deutsch, Julia Edlinger, Tanja Fink, Bettina Fischer, Armin Friedrichkeit, Silvia Füreder, Eva Hölblinger, Kerstin Jörg, Emanuel Kaspar, Marlene Köttstorfer, Lena Leitmeier, Claudia Mautner, Marin Muhoberac, Kathrin Niederbichler, Lisa Reisenhofer, Christine Rossegger, Alina Samonig, Stefan Samonig, Christoph Schinnerl, Christoph Schuster, Lisa Steindl, Anna Taurer, Gerhard Witz, Victoria Zotter, Christine Kapper, Daniela Lehner, Gilbert Ahamer¹

This article provides an overview of multicultural and developmental curricula worldwide with an emphasis on 'Global Studies' (GS) curricula such as the recently founded GS Master's curriculum at Graz University, Austria. Based on an in-depth comparison, practical and implementable suggestions are made about how to improve such curricula in order to ensure highest and globally compatible academic quality. The analyzes conducted by over 50 contributors during 2010–2013 show first that the Graz-based curriculum has achieved international quality standards by spanning multiple faculties, disciplines, professional roles, and perspectives regarding globalization. Secondly, suggestions for improvements pertaining to nine aggregated issues are provided: partner universities, semester abroad, interdisciplinarity, didactics and lectures, practicals, languages, electives, admission of students, and exams. The present

¹ Almost all co-authors study 'Global Studies' at Graz University or graduated from this curriculum. Additionally, Lena Bader (holding a master degree in economics and in GS) and Gerhard Witz are elected student representatives since GS start in 2010; Silvia Füreder acts as study assistant for the GS curriculum since 2012 at the Institute for Social and Economic History of Graz University; Elisabeth Deutsch MA works in the headquarters of the St. Vincent Community accommodating and feeding daily over 500 people in their homeless shelters throughout Austria; Marlene Köttstorfer holds a master degree in Ethnology and works at the department for children, youth and family in the township Knittelfeld, Styria. Victoria Zotter at presently study GS or already graduated from GS. Dr. Christine Kapper is head of the Department for eLearning and Scientific Software Service at Graz University. Daniela Lehner is student in Global Studies and Geography at Salzburg University. Dr. Gilbert Ahamer is elected board member at the Austrian umbrella organization for developmental curricula such as 'Global Studies', namely the Vienna-based 'Mattersburg Circle for Development Policy at Austrian Universities'.

specific recommendations serve as valuable evidence-based and authentic input for quality assessment procedures at Graz University, and similarly for other academic curricula elsewhere.

Keywords: *Global Studies, curriculum, quality assessment, improvements, students' viewpoint, developmental education, web platform.*

Introduction

‘Climate change and shortage of resources, hunger and mass poverty, terror and violence represent manifold unresolved global problems and challenges’ (Global Studies Graz 2010, 2011). As a sound answer to these challenges on an educational and cultural level, many universities have increased their efforts by studying such problems as globalization and structural peace. This article presents more than a dozen such university curricula focusing on international development and global, multicultural studies.

Due to its geographical location between two former power blocks, neutral Austria has repeatedly assumed a role of active, peace-oriented foreign policy and its capital Vienna is one of the four headquarters of the United Nations.² In Austria's second-largest city, Graz, since 2004 various NGOs and representatives from all faculties of the university have embarked on establishing two Global Studies (GS) curricula: the ‘*Bundle of Electives Global Studies*’, and since 2010 the ‘*Master Program Global Studies*’. After years-long institutionalization efforts by the steering committee GS and the curricula commission GS, both curricula have formed a stable contribution to Austria's academic landscape (Kumpfmüller 2007, 2009; Bader and Zotter 2012: 121; Ahamer et al. 2011: 19–26; and see Section 1.1.6.1). Such internationally oriented, high-quality curricula comply with documents on the common European Higher Education Area (EHEA 2010), with the national university strategy including quality audits (Uniko 2011: 22; Bernhard 2011, 2012, 2013), with literature analyzes on quality assessment for interdisciplinary curricula (Ahamer 2013b; Ahamer and Kumpfmüller 2013), and received backing from the rectorate and from all elected student representatives (GS 2011).

Due to the increasing number of GS students in both curricula, several types of self-organized institution building have emerged among students. In addition to actively participating in the GS curricula commission, student representatives have developed a forum for informal discussion of GS issues,³ co-founded an alumni club for GS graduates and organise weekly lunch tables.

In order to improve further the academic quality of GS as such, this article will analyse and compare sixteen Master programs (and a few Bachelor programs) focusing on global and multicultural studies. Both new and advanced students have contributed to the present text with their realistic day-to-day perceptions and authentic awareness, complemented by graduate professionals with a full history of GS studies. National and international GS-related Master programs were compared in order to determine characteristic differences and attractive peculiarities in various fields.

The appeal of this paper consists in the authentic authorship of students who have experienced the curriculum and at the same time have analyzed it via peer-review processes (Pany 2013; Ahamer 2012a) utilizing the communicative functionalities of an elaborate web platform (WebCT). A high percentage of co-authors has acquired solid

² UNIS. The United Nations in Vienna. URL: <http://www.unis.unvienna.org/unis/en/unvienna.html>.

³ Global Studies Forum – an informal student forum. URL: <http://globalstudies.gerianer.net>.

professional developmental experience at their own workplaces, which adds credibility to the argumentation and recommendations of the present article.

1. Curricula for Development, Global Learning and Multicultural Education

This first section describes curricula and offers descriptions on the following items as numbered subsections:

1. *General information* (including: duration, ECTS, academic degree).
2. *Admission*.
3. *Subject*.
4. *Structure of the program*.
5. *Philosophy*.
6. *Mission*.
 - 6.1. *Development and history* (only for GS Graz).
7. *Teaching methods*.
8. *Exclusivity of the Master's program*.
9. *Internship*.
10. *Semester abroad*.
11. *Possible employment areas*.
12. *Sources*.

This analysis of curricula, however incomplete, was performed by the enumerated authors and facilitates the overview of various approaches to Global Studies, namely at Graz University (Austria), Vienna University (Austria), Salzburg University (Austria), Albert-Ludwigs University (Freiburg, Germany), Philipps University (Marburg, Germany), Leipzig University (Germany), Roskilde University (Denmark), Lund University (Sweden), Gothenburg University (Sweden), Birmingham University (UK), Northeastern University (Boston, USA), University of Ottawa (Canada), University of Toronto (Canada), University of California (Santa Barbara, USA), Australian National University (Canberra), Wilfrid Laurier University (Canada), University of Los Angeles (UCLA) (USA), Vancouver Island University (Canada) (ordered along geographical distance from the first mentioned, see Fig. 1). Further interesting curricula include the GS curricula at Lomonosov University (Moscow, Russia);⁴ Bonn University; Liu Institute for Global Studies Issues (British Columbia); Global Political Economy at Kassel University; University of Business and International Studies in Geneva; International Studies in Aarhus; Development and Cooperation at ETH Zürich (Switzerland); Globalization – Global Politics and Culture at Trondheim University (Norway); and Global Studies at the University of Minnesota (USA).

⁴ Global Studies at the Moscow State University named after M. V. Lomonosov. URL: <http://www.msu.ru/en/info/struct/depts/fgp.html> and at <http://fgp.msu.ru/about/about-the-faculty-of-global-studies/>.

Fig. 1. Geo-localization of the Global Studies curricula

Note: Map type: Peters projection, turned upside down to highlight the global South. The round ‘Global Studies’ (GS Graz) logo geo-references the universities with GS curricula analyzed for this article’.

Source: adapted from Ahamer 2013c.

The geographical distribution of curricula is visualised in (Fig. 1). Several co-authors have found that German-speaking curricula in particular exhibit an interdisciplinary and multiparadigmatic approach that has been defined as essential in the Graz curriculum (Global Studies Graz 2011: 1); consequently this article focuses on such multiparadigmatic approaches to global development, peace and globalization. The following list is roughly ordered according to the distance from Graz, Austria, in order to avoid implicit understanding as tacit ranking.

1.1. Master's Curriculum Global Studies (GS), Graz University, Austria

1.1.1. General information: 2 years, 120 ECTS, started in winter semester (WS) 2010/11, academic degree: Master of Arts (MA).

1.1.2. Admission: Admission is considered upon evidence of completed, academically relevant previous studies (Bachelor degree or Diploma degree) amounting to 180 ECTS (Global Studies Graz 2012). Generally, ‘there are three possibilities of admission:

1. Unconditional offer: approval of completed studies, 180 ECTS credits or more, relevance of completed studies (50 % of the completed studies, *i.e.* 90 ECTS credits of which can be counted toward the specializations);

2. Conditional offer: if at least 60 ECTS credits can be allocated to the specializations, students are approved but with an additional requirement of 30 to 40 ECTS credits;

3. No Admission: if fewer than 60 ECTS credits can be counted toward the specialisations’.

1.1.3. Subject: The interdisciplinary approach, which is one of the main characteristics of this program, enables one to deepen one's knowledge of the phenomenon of

globalization. The first semester focuses on basic knowledge in the fields of economics, law and politics, history, climate, environment and technology, culture, religion, society and gender. Later, a specialization in at least two of these disciplines is required. The aim of GS is to describe development and globalization from the perspective of various scientific disciplines based on a cutting-edge critical academic analysis. In the context of an interdisciplinary approach, students will extend their skills in various areas (e.g., social learning and cosmopolitan attitude). The intent of GS is to identify and explain global relationships and to understand their interdependencies. Both an interpretation and comprehension of global inequality is required to help and resolve the problems of today's complex environment.

1.1.4. Structure of the program: Compulsory basic module GS (A): 29 ECTS (including basic lecture GS, developing countries and globalization, international politics, basic problems of gender history, lecture series GS). Specialization: 2 modules, 12 ECTS each to choose from: module B: law and politics, module C: economics, module D: history, module E: environment, climate and technology, module F: culture, religion, society and gender, (originally 8 modules were proposed, cf. Ahamer *et al.* 2011: 25), module G: internship 16 ECTS (10 weeks) and a course in which the internship is analyzed to the extent of 2 ECTS, module H: master module with 37 ECTS (including master thesis with 25 ECTS), elective courses: 12 ECTS, see detailed course list online (GS Courses 2013).

1.1.5. Philosophy: The origin of the Master's program in Global Studies is the emphasis on an academic, that is analytical and critical, view on globalization. To enlarge the analyzes' horizons, it combines the resources of different faculties at the Karl-Franzens-University of Graz to facilitate the understanding of global issues from different perspectives and includes the practical wisdom of NGOs. The resulting interdisciplinary approach is intended to sharpen the mind and broaden one's previous horizons, but moreover to open up perspectives when discussing global issues. Integrative understanding of global societies and their mechanisms, interdependencies and problems will be trained and fostered as well as complemented by a non-university internship. The comprehensive view is rendered complete especially by introducing first semester courses involving gender issues, developing countries in the context of globalization and international politics.

1.1.6. Mission: The primary goal of the 4-semester program is to provide and promote *global perspectives* by the description and *analysis* of historical, current and future processes and an integrative approach to global society, its mechanisms, interdependencies and problems as a basis for producing a *responsibility-based competence to act* (Anselm and Körtner 2003; Müller *et al.* 2013) when dealing with globalization problems. The Master's program, Global Studies, combines the teaching resources of *all the faculties* at the University of Graz relating to global issues from different perspectives. Students are offered a holistic view of global problems (Schweitzer 1996) and expertise in solutions. Important skills are to sharpen the understanding of different cultures and newly emerging systems worldwide and to enable a broader view on global processes. The ability to understand points of view from different perspectives (Global Studies Graz 2011: 1) provides a basis for decision-making and taking responsibility in a dynamic and complex world. The acquired multi-perspectivist and multi-paradigmatic knowledge and skills enable students to analyse the great number of international and cross-cultural challenges

extant and to deal with them in a sensitive and network-orientated way of thinking, which is necessary in global issues.

1.1.6.1. Development and history: As this paper is written by students of GS, a short overview of the origin of this very young Master's program is covered. The aim of this paragraph is to offer an insight into the broad engagements of the founders of GS in Graz (mainly its initiator K. A. Kumpfmüller [2012a, 2012b], lecturer of development economics since 1977 after studies at The Paul H. Nitze School of Advanced International Studies of The Johns Hopkins University) for getting an idea from where the current motivation of the almost 100 new students per year with GS as major (Bader and Zotter 2012) could originate: in 2004 an informal working group was founded, which later developed into the Global Studies Steering Committee. This working group consists of university professors as well as representatives of different developmental NGOs (*e.g.*, Centre for Peace and Development in Graz, the developmental initiative of the diocese of Graz named 'Welthaus', the Afro-Asian Institute [AAI 2010] *etc.*), which in 2004 founded the 'Bundle of Electives Global Studies' to the value of 40 ECTS and in which students from all faculties are enrolled (Ahamer *et al.* 2011: 29–33; 2013a). This bundle includes global problems and opportunities in the areas of hunger, poverty, climate change, culture, politics, *etc.*, and can be seen as a complement to the Master's program in Global Studies for a well-defined target group of students who wish to stick to their original specialties. After seven years of preparation (Kumpfmüller 2007, 2009), including many discussions (*e.g.*, Pajank 2008), modifications, administrative developments, support from the national umbrella organization (MK 2013), and extremely severe financial bottlenecks, the Master's program in Global Studies has finally been on offer since the winter semester (WS) of 2010/11 (Ahamer *et al.* 2011: 21–26).

1.1.7. Teaching methods: The transfer of knowledge can take the following forms and depends on the selected courses: lectures ('VO' – knowledge transfer through presentation of the teachers), courses ('KS' – students work on course content together with lecturers; experience-based and application-oriented focus), seminars ('SE' – scientific discussions and contributions from students, including written work). These forms of teaching can also be held in block-form (*e.g.*, winter and summer schools, intensive programs, *etc.*) or as a special, very interactive kind of course called 'interdisciplinary practical' (IP), which is described in more detail later in Section 2.5. Depending on the nature of teaching activities, new media such as online learning platforms (WebCT, Blackboard, Moodle, *etc.* (Kapper 2013; Müller *et al.* 2013; Ahamer 2011, 2013b), is integrated into classes. Such e-learning platforms serve to provide course materials, allocate assignments, form groups, allow for chats and perform online surveys, tests, and exams. A practical application of the knowledge and skills gained during GS is implemented through a compulsory internship, which is recommended in the third semester. As an example of the outcomes of these teaching methods, a group of students (analogous to us) in the course 'analysis of internship' in summer semester (SS) 2012 collaboratively authored a paper after a web-based collaborative procedure (Duraković *et al.* 2012).

1.1.8. Exclusivity of the Master's program: Stemming from the 'Bundle of Electives GS' with its exclusive lecture 'Introduction to GS' held by GS founder and Austrian doyen for peace research, Karl A. Kumpfmüller (2012a, 2012b), this very new Master's program includes the exclusive lectures 'Basics of GS' and 'Lecture Series GS'. The Basic Lecture

contains each of the selectable disciplines and enables a broad understanding by introducing all the different modules. The 'Lecture Series GS' is documented by the book series HSK,⁵ edited by the Mattersburg Circle for Developmental Policy at Austrian Universities (MK 2013) and enables national as well as international experts to give their lectures at the University of Graz. Compared to other curricula, an interdisciplinary point of view and integrated thinking are key features of Global Studies at the University of Graz, thus fulfilling the integrated demands of academic interdisciplinarity on a peer-reviewed level (Ahamer and Kumpfmüller 2013; Ahamer 2013a).

1.1.9. Internship: Compulsory non-university internship to the value of 16 ECTS (400 hours), which is recommended in the third semester. A specialized course ('Analysis of GS Practicals') exists to reflect on the internship and to link it to theory.

1.1.10. Semester abroad: highly recommended.

1.1.11. Possible employment areas: These include governmental and non-governmental organisations as well as inter- and supranational organisations. In the field of management in international companies, science, research and teaching in human rights work, in international civilian peace services, in reconciliation initiatives, international cultural relations, media area, development cooperation, humanitarian organisations, educational institutions, climate and environmental projects and in similar occupations.

1.1.12. Sources: Curriculum: Global Studies Graz 2011. Web site: Global Studies Graz 2010. Students' informal internet forum: Global Studies Forum. Admission: Global Studies Graz 2012.

1.2. Master's Curriculum International Development (IE), Vienna University, Austria

1.2.1. General information: 2 years, 120 ECTS, academic degree: Master of Arts (MA)

1.2.2. Admission: A completed subject-relevant preliminary Bachelor's degree, a degree from a university of applied science or an equivalent programme at a recognised Austrian or foreign post-secondary educational institution is required. If general equivalence is given and there are only a few elements lacking from full equivalence, admission can be obtained by completing additional courses and examinations to a maximum of 30 ECTS within the Master's programme.

1.2.3. Subject: The aim of this Master's programme is to convey content, theories and methods that are important for development research. Emphasis is on the critical analysis of development; therefore disciplines including sociology, politics, theology, economics, culture, and geography are part of the Master's programme.

1.2.4. Structure of the programme: The course is divided into two basic modules (basics and methodologies), then nine specialisation modules out of which three have to be selected (15 ECTS each); finally a research module and the master module. At least two courses must be attended in a foreign language.

1.2.5. Philosophy: The main objective of this Master's programme is the conveyance of disciplinary approaches and skills and the ability to link these as part of a trans-disciplinary research perspective in terms of development.

1.2.6. Mission: Transdisciplinary analysis and critical reflection of unequal relationships on a global scale are the focus of the Institute for International Development in Vienna.

⁵ HSK *Historische Soziokunde*. Book series edited by Mattersburger Kreis. URL: <http://www.mattersburgerkreis.at/hsk/>.

Not only in research but also in teaching, such as in the Master's programme International Development and in the Bachelor's programme, which lamentably has been discontinued, were these priorities emphasised (International Development Vienna 2012).

1.2.7. Teaching Methods: The teaching methods include lectures, tutorials, courses, seminars and a Master seminar.

1.2.8. Exclusivity: This Master's programme is characterised by methodology modules, the promotion of language skills, the critical analysis of development issues, and the wide range of courses.

1.2.9. Internship: Not compulsory.

1.2.10. Semester abroad: Recommended.

1.2.11. Possible employment areas: Besides teaching and research in academic fields, possible employment areas include organisation in the fields of development cooperation or public relations and media relations with a focus on development cooperation. Furthermore, professions which require intercultural competence as well as a broad knowledge of various regions of the world can be aspired towards.

1.2.12. Sources: Curriculum International Development (in German: Internationale Entwicklung IE) and brief information: International Development Vienna 2012.

1.3. Master's Curriculum Global History and Global Studies, Vienna University, Austria

1.3.1. General information: 2 years, 120 ECTS, started in winter 2008/09, academic degree: Master of Arts (MA).

1.3.2. Admission: Evidence of a completed, subject-relevant Bachelor degree or equivalent; or higher degree in the field of humanities, culture, sociology or law. In the absence of these prerequisites, conditional approval is possible. Furthermore, active knowledge of English and passive knowledge of a second foreign language is required.

1.3.3. Subject: This Master's programme deals with the historical development of humankind on a global scale and is mainly focused on the processes of interaction and interdependence of population groups. In addition to historical education, cultural and social sciences are taught. Expertise is made possible by deepening knowledge of Global Studies and Global History. Furthermore, the ability to think independently and work autonomously, especially in historical research, is promoted, thus enabling an advanced academic education in the field of history as well as the preparation for doctoral studies. In addition, experience in the field of (digital) media and teamwork skills are additional areas in which students gain basic knowledge and skills. Specialisation in one particular field of science, especially in global history and present tendencies of globalisation are an important part of this Master's programme.

1.3.4. Structure of the programme: This Master's programme is divided into the following modules: compulsory module (introductory phase which includes: philosophy of science, theories in historical science, practice of scientific communication and foreign languages in historical science 1 and 2 which is recommended in the second semester), basic module, alternative compulsory module (theories, sources, methods, specification, including global governance), research module. The first module focuses on theories and methods of global history, the second module on regions in global history and in the third module topics of global history are examined, with the fourth module including independent research and the Master's thesis (20 ECTS). Within each module, certain

disciplines have to be completed at the home university and at international partner universities.

1.3.5. Philosophy: The focus of this programme is on a multifocal, global and critical approach of history and globalisation, which should support a wide-ranged approach in different regions and among different population groups. This is supported by the international background of the students, which is enabled via the EU Erasmus Mundus mobility programme.

1.3.6. Mission: Raising awareness of a multifocal, global perspective away from the general eurocentrism of the humanities. The mediation of interdisciplinary content, methods, practices and theories centres on global history.

1.3.7. Teaching methods: Teaching methods include lectures, lectures with exercises, exercises (working in groups; including written works), courses (active contribution of students in the classes), seminars (prepare and present papers), research seminars (project work in teams, performance and presentation of the results) and excursions (scientific trips, writing seminar papers) and a post graduate programme (preparation for the Master's thesis). Furthermore there is the possibility of experiencing a different country's teaching methods through the Erasmus Mundus Partner universities in Leipzig, Wrocław and the London School of Economics and Political Science. Completion of a language module is compulsory as well as the completion of one course in English language.

1.3.8. Exclusivity of the Master's programme: The promotion of student mobility is an emphasis of this programme. One semester must be completed at the home university, the other three semesters at other foreign universities. Global history constitutes an Erasmus Mundus connecting the universities Wrocław, Leipzig, and the London School of Economics programme (Global History Vienna 2009), which promotes and facilitates student mobility. The module of methodology is an additional feature of this Master's programme.

1.3.9. Internship: Not compulsory

1.3.10. Semester abroad: The main part of the programme can be completed at a university abroad, supported by the Erasmus programme. Besides, students are able to choose from offered excursions in global history or in another global studies discipline.

1.3.11. Possible employment areas: The wide range of working fields include occupational areas in which advanced knowledge in the scientific fields of culture, sociology, humanities as well as their mediation is needed. Occupations which require expertise in the use of digital and other media, an international horizon, working independently as well as in teams are areas of employment. Working in (non-)governmental and inter- as well as supranational organisations, in international business, in the field of human rights, in museums and exhibitions, in the fields of media and cultural work as well as publishing, and tourism are just some examples.

1.3.12. Sources: Brief information: Global History Vienna 2009. Curriculum: Global History Vienna 2012.

1.4. Elective Bundles Global Studies (GS), Salzburg University, Austria

1.4.1. General information: At Salzburg University, Global Studies is an interdisciplinary bundle of electives that may be chosen in three block-sizes as facultative programmes in addition to other curricula. Since 2009, (a) the basic module (12 ECTS), (b) the additional module (24 ECTS) and (c) the study focus module (36 ECTS) are established.

The head of the Department of Geography has been responsible for GS since 2012; officially, the Centre for Flexible Learning (CFL) at Salzburg University still delivers the certificate as it does for all twelve other coordinated study modules. The study focus module with 36 ECTS can be noted on the Bachelor's or Master's certificate, if the department approves it. In 2013 the creation of a Master's programme on geographies of uneven development is planned as one of three specialties for a Masters in Geography at Salzburg University.

1.4.2. Admission: Registration on an undergraduate or Master's programme at the University of Salzburg. Certain events and lectures are limited in the number of participants.

1.4.3. Subject: The focus of the programme GS is on a systematic and dialogical understanding of economical, ecological, political, cultural, social and religious interdependencies and processes of globalisation. Different institutions, parties, interests and roles of the globalisation process will be critically analysed. Furthermore, the meaning of power relations and the causes of structural inequality will be discussed. The goal is a critical view of common perspectives on globalisation and the development of new points of view and a deeper understanding of these complex phenomena.

1.4.4. Structure of the programme: Three options: (a) The basic module GS (12 ECTS) includes two compulsory classes: Introduction GS (3 ECTS) and either the lecture series global challenges (3 ECTS) or the lecture seminar GS (6 ECTS). The balance of the missing ECTS in every module can be chosen from the catalogue of optional subjects. (b) The additional module GS (24 ECTS) deepens the basic module GS, therefore the basic module is compulsory for the additional module. (c) The study focus module of GS (36 ECTS) requires the additional module of GS. The catalogue of optional subjects differs from semester to semester, depending on the department courses on offer. The study focus module catalogue contains 17 lectures in total, for example, the 'Arab Spring and media', 'Contemporary history (immigration Africa-Europe)' or 'Dialogue of perspectives on global change and globalisation'; the students of the latter seminar have authored an article in the present special issue on GS (Altmann *et al.* 2013).

1.4.5. Philosophy: Students should gain comprehensive knowledge and skills in the field of globalisation and learn to consider the globalised world from an interdisciplinary perspective. Networked thinking, problem-based learning and an approach from various points of view are emphasised.

1.4.6. Mission: To develop critical understanding within the present and the historical processes of globalisation from an interdisciplinary and open-minded point of view. The goal is to reflect global processes, for example, through discussions, literature based research or writing tasks in order to develop new perspectives and viewpoints on globalisation.

1.4.7. Teaching methods: Lectures, lecture series or seminars including different didactical approaches and forms of presentation depending on the lecturer.

1.4.8. Exclusivity: The GS modules in Salzburg can be structured very freely by each student, according to available time and individual interest.

1.4.9. Internship: At present not part of the programme.

1.4.10. Semester abroad: Possible, not compulsory.

1.4.11. Possible employment areas: The Global Studies Certificate is an additional qualification on top of a regular Bachelor's or Master's programme. The combination of

the regular Bachelor or Master subject with GS can widen the career opportunities of possible employment areas, and shows the applicants' interest in globalisation.

1.4.12. Sources: Information and available courses: Global Studies Salzburg 2013. Curriculum: Global Studies Salzburg 2012. Since longer, in Salzburg there exists an EU-oriented Master (European Union Studies 2010).

At nearby Linz University, a small bundle of electives on GS has also been active for several years (Nuscheler and Wittmann 2013; cf. Nuscheler 2012; Wittmann 2012).

1.5. Joint Master's Curriculum Global Studies (GS), Albert-Ludwigs University, Freiburg, Germany

1.5.1. General information: 2 years, 120 ECTS, started in 2002, academic degree: Master of social science (MSSc).

1.5.2. Admission: Bachelor of social science (or related) as well as excellent English skills (which means either the status of native speaker or proof of a TOEFL/IELTS/Cambridge Certificate (for details see Global Studies Freiburg 2013).

1.5.3. Subject: Graduates should be able to apply their in-depth knowledge and practical skills to the analysis of social, political, economic and cultural dimensions of globalisation processes in an institutional setting. Interdisciplinary and intercontinental training in the areas of sociology, political science, anthropology and cultural geography, as well as in modules for environmental sciences, business and data management are emphasised. The two concepts 'global analysis' and 'global experience' reflect the fundamental idea: first, well-founded knowledge in analysis and methodologies; second, their improved comprehension of such following personal experience on other continents. Globalisation, global politics, cultural change, research methods and international internships as well as colloquiums are included in the curriculum. Studying on three different continents enables the raising of awareness about the relativity and the constructed nature of societies, cultures, and policies, which serves to strengthen intercultural skills and qualifies the students to be experts in transnational connections.

1.5.4. Structure of the programme: This Master's programme contains the following four modules; Globalisation, Global Governance, Cultural Change and Methodology, characteristically distributed across the participating universities as follows: The first semester should be completed in Freiburg, the next at University of Cape Town or FLACSO Argentina in Buenos Aires, the third semester at Jawaharlal Nehru University in New Delhi or Chulalongkorn University in Bangkok, the fourth semester includes an internship and the fifth semester should be completed in Freiburg or Cape Town. (for details see Global Studies Freiburg 2013). The Master's thesis amounts to 25 ECTS.

1.5.5. Philosophy: The focus of this Master's programme is on global analysis, which includes deepening knowledge of analysis, methodology and practical skills as well as on global experiences, which are received in terms of the semesters abroad. The aim is to study social sciences in different cultures and regions for promoting intercultural and interdisciplinary skills. The emphasis is on maintaining multi-centric perspectives. The curriculum focuses on a set of interdisciplinary perspectives of globalisation.

1.5.6. Mission: Due to cooperation with international universities, a variety of cultural knowledge is enabled. Through their studies and these intercultural and interdisciplinary experiences between different continents, students are supported to become experts of

the various currents of globalisation. The students will learn to see the global world from different perspectives and disciplines.

1.5.7. Teaching methods: Knowledge transfer in the style of seminars, which includes participation in discussion, presentations and homework – individually as well as in groups. ‘Empirical research projects’ are applied and relevant for practice.

1.5.8. Exclusivity: The Master's programme is characterised by its international setting. Studying abroad, as well as requiring high language skills, supports this positive reputation. In 2006, this curriculum was awarded the title of ‘Top Ten International Master's Degree Programme’ in Germany. This curriculum's ‘global experience’ creates awareness of the relativity and structured nature of societies, policies and cultures. Students not only attain as the status of experts for transnational relationships but also strengthen their inter-cultural competence, focusing on multi-centric perspectives.

1.5.9. Internship: Compulsory (5 ECTS – eight weeks).

1.5.10. Semester abroad: Compulsory two semesters abroad (as this is a Joint Master's Programme, half of the courses have to be completed abroad).

1.5.11. Possible employment areas: Career in academia, in international organisational work (e.g., the UN or NGOs) or in the field of development. Some graduates work in the areas of media, coaching, consulting or policy.

1.5.12. Sources: Curriculum: Global Studies Freiburg 2013. Information: Global Studies Freiburg 2012; Studierendportal Freiburg 2011. Module Handbook: Global Studies Freiburg 2011.

1.6. Master's Curriculum International Development Studies, Philipps University, Marburg, Germany

1.6.1. General information: 2 years, 120 ECTS, academic degree: Master of Arts (M.A.)

1.6.2. Admission: The prerequisite is a successfully-completed (at least completed with a grade ‘satisfactory’) subject-related Bachelor degree in political science, sociology or economics or in a thematically similar programme. It is necessary to have foreign skills in English Level B2, and another language level B1. Students are required to pass an aptitude test.

1.6.3. Subject: The Master's programme is about causes, results and the general framework of global economic, cultural and political development of various regions of the world. The interactions of institutions and development processes are focused at different levels. Students gain a methodological expertise and a critical as well as comprehensive approach to (inter)national problems. The main focus is on the interaction between institutions and development processes in a regional and international context, with a special focus on non-OECD countries.

1.6.4. Structure of the programme: Appropriate mix of lectures (with dialogue elements), tutorials, seminars (weekly, supervised by professors), internship (minimum 300 hours) and research project. At the University of Marburg, a basic module is to be completed which provides an overview of social, economic and scientific fields (22 ECTS): 1. Geography, 2. Oriental Studies 3. Comparative Cultural Research; Electives (12 ECTS); Interdisciplinary Colloquium and Seminar (6 ECTS), research project (12 ECTS); internship (11 ECTS); Master Thesis (22 ECTS).

1.6.5. Philosophy: This programme enables students to explore in detail the challenges faced by developing and developed countries in the fight against global poverty, as well as to understand the prospects and problems of the proposed approaches that reduce poverty. Here the theory and history of development, changing ways of reducing poverty, skills for practical approaches and research programmes are taught. High methodological expertise combined with a profound knowledge of economics and social science theories are skills which graduates should apply in their future working fields. Due to interdisciplinary and multidisciplinary modules the students are prepared for specific problems in areas such as development cooperation, international corporations, in the non-profit sector or in scientific fields.

1.6.6. Mission: This Master's programme focuses on causes, consequences and conditions of economic, social and political development. The main focus is on the interaction between institutions and development processes in the regional and international context, with a specialisation on non-OECD countries. Methodology makes use of the more research-oriented course of the approach of comparative institutional analysis. The programme is strongly research oriented. Students should be able to conduct their own independent research for the Master's thesis. The combination of theoretical knowledge, methods and empirical skills is very important.

1.6.7. Teaching methods: Lectures (with dialogue elements), courses, seminars, research-based courses, tutorials, colloquia, excursions, internship.

1.6.8. Exclusivity of the Master's programme: The colloquium is the only exclusive course of this Master's programme; all other courses are offered by other faculties.

1.6.9. Internship: An internship in form of a full-time job for at least eight weeks (minimum 300 hours) is obligatory.

1.6.10. Semester abroad: Recommended.

1.6.11. Possible employment areas: Development cooperation in an international organisation, non-governmental or in scientific organisations such as university research institutes.

1.6.12. Source: Admission: International Development Studies Marburg 2012. Information: International Development Studies Marburg 2013. Curriculum: International Development Studies Marburg 2011.

1.7. Master's Curriculum Global Studies (GS), Leipzig University, Germany

1.7.1. General information: 2 years, 120 ECTS, since WS 2004/05, academic degree: Master of Arts (MA).

1.7.2. Admission: A completed Bachelor degree in historical or cultural studies or social science subject and the knowledge of three foreign languages: English (compulsory) and another two modern languages with skills of UNICert-Level 2.⁶ Students also have to pass an aptitude test.

1.7.3. Subject: The programme is about methods and theory of history, cultural studies, humanities and social sciences all around the processes of globalisation focussing the situation of nations of North and South.

⁶ Cf. UNICert. Language Certificates for Universities. URL: <http://www.unicert-online.org/en/>.

1.7.4. Structure of the programme: First semester: Three introduction modules: Introduction to global history, Introduction to social science theories of globalisation research and Introduction to methods of globalisation research. Second semester: 2 elective modules out of 5 modules: Regions in a globalising world: Sub-Saharan Africa, America, Asia, Europe or the Middle East. 2 compulsory modules: 1 week summer school + GS Colloquium. Third semester: 2 elective modules such as in the 2nd semester; 2 compulsory modules: Research internship + GS Research Colloquium. Fourth semester: 2 modules: 'Cultural dimensions of globalisation' and 'Economic and political dimensions of globalisation'. Two semesters studying abroad (60 ECTS) and a GS Colloquium for the Master's thesis.

1.7.5. Philosophy: Mediation of international and interdisciplinary competencies with regard to the phenomenon of globalisation.

1.7.6. Mission: The aim is to empower students to deal with problems, results and processes of globalisation. It is about implementing skills combining theory and methods to be able to work in the field of global institutions. Students should also develop their academic competences so that they are qualified for the doctoral programme. Knowledge, theories and methods to prepare, on the basis of history, culture, humanities, social science base and to deal with globalisation and its processes. The aim of the study is to understand globalisation through a very interdisciplinary approach.

1.7.7. Teaching methods: Introducing lectures, joint seminars, colloquia, research internship and winter/summer school for presentations and practical experience. Students have the opportunity to pass a specialist internship because the Master is part of a global by Erasmus Mundus programme which promotes mobility and exchange of students.

1.7.8. Exclusivity of the Master's programme: The completion of a practice is not mandatory, but there is the opportunity to replace one of the three projects to be completed by a practice visit. The University of Leipzig cooperates with partner universities abroad (University of London, Roskilde University, University of Vienna, University of Wrocław) where students have to pass their semester abroad.

1.7.9. Internship: Mandatory research internship (in the third term).

1.7.10. Semester abroad: One of the two years of study (*i.e.*, 2 semesters) will be completed at the partner universities in Vienna, London and Wrocław.

1.7.11. Possible employment areas: The possibility to work in historical, cultural or social institutions.

1.7.12. Sources: Information: Global Studies Leipzig 2013. Study Programme: Global Studies Leipzig 2012.

1.8. Master's Curriculum Global Studies (GS), Roskilde University, Roskilde, Denmark

1.8.1. General information: 2 years, 120 ECTS, academic degree: Master of Science (MSc).

1.8.2. Admission: A Bachelor's degree in Global Studies or, if educational background is considered subject-relevant, qualification has to be verifiable.

1.8.3. Subject: The aim of the programme is to convey to students an interdisciplinary understanding of the political, social and economic processes associated with globalisa-

tion. Students should be capable of managing the challenges of occupations in which an understanding of international relations is necessary.

1.8.4. Structure of the programme: Global Studies focuses on motivation forces behind the globalisation and its effect on the three central spheres of the society: The state, the markets and civil society. This is reflected in the three themes of the programme. Courses of study in each of the three areas are: (1) global politics, global governance, regionalisation and sovereignty of states, (2) culture, civil society, social movements and globalisation, and (3) global economy. Roskilde's Master's programme focuses emphasis on project work to enable students first to work in groups in combination with an interdisciplinary thinking approach. The master thesis amounts to 20 ECTS.

1.8.5. Philosophy: 50 % of the programme is courses and lectures; the other 50 % is project work (15 of the 30 credits, which must be provided per topic). An information management course is compulsory. Besides, it is recommended that students combine this Master's programme with other subjects like Business Studies, Geography or International Development for example. There are four Master's modules with two fundamental parts in this Master's programme. Furthermore there is the option to continue the study with a PhD programme.

1.8.6. Mission: The Master's degree in Global Studies aims to equip students to carry out extensive and specialised interdisciplinary analyses within the area of GS. Regarding the content of the study, the focus is on sociology, political science, anthropology, cultural geography, economics and environmental sciences. The study programme provides students with advanced theoretical and methodological knowledge of the interplay between international politics, international political economics, welfare and inequality. The course also develops the student's skills in a project-based working form, supplementing these with enhanced skills in presentation, argumentation and task performance.

1.8.7. Teaching methods: The framework of the professional study environment is mainly the courses and the project work. The courses at Global Studies have an attendance of 15–30 students, which leaves ample opportunities for debates between the students and the lecturers and for student presentations and questions. The group work takes place in groups of two to four students with an affiliated supervisor who helps with both the professional and the practical aspects of the group work.

1.8.8. Exclusivity: A very significant part of this programme is the 'global experience'. During a period of 2 years the students study in 3 different cities (optional) on 3 different continents. Besides this, many students pass a semester abroad. Furthermore, all courses are held in English.

1.8.9. Internship: The completion of a practice is optional. The opportunity is offered to replace one of the three projects which are part of the programme with a practice visit.

1.8.10. Semester abroad: Optional.

1.8.11. Possible employment areas: Employment fields with this Master's programme are, for example: European integration, international governance and development, social change and also in the field of economic institutions, trade organisations and companies.

1.8.12. Sources: Information: Global Studies Roskilde 2013. Course list: Global Studies Roskilde 2012.

1.9. Master's Curriculum Global Studies (GS), Lund University, Lund, Sweden

1.9.1. General information: 2 years, 120 ECTS, academic degree: Master of Science (MSc).

1.9.2. Admission: In order to be admitted to the programme, students have to hold a Bachelor's degree with a major in social sciences or equivalent. A minimum average grade of 3.0 out of 4 in cumulated grade point average (CGPA), C in the ECTS grading scale or B in the American grading scale is required as well. Language skills in English shall be demonstrated in terms of an IELTS score of 6.5, a TOEFL total score of 575, a Cambridge Certificate of Advanced English, a Bachelor's degree from an English-speaking university or a pass on English course grade B in Sweden.

1.9.3. Subject: The Master of Science in Global Studies provides interdisciplinary knowledge of globalisation, conflict and social change. Students shall learn to connect the theories and processes of globalisation. Cultural, economic, political and socio-psychological theories and concepts are presented and aim to enable students to make analyses of how globalisation is connected to conflict and social change.

1.9.4. Structure of the programme: At the beginning of the programme, that is in the first semester, a profile course introducing the students to the main themes and issues of the programme has to be attended. Courses in the theory of science and research methods follow. In the second semester, students shall increase their understanding and knowledge of global development. The second year consists of optional courses of particular interest and the thesis provides the opportunity to demonstrate mastery of theories, methods and argumentation. The Master's thesis amounts to 30 ECTS.

1.9.5. Philosophy: This Master's Programme was established in order to educate students who are able to combine theory and practice. Students shall develop interdisciplinary points of view and analyse globalisation and its characteristics.

1.9.6. Mission: The objective of the programme is to provide students with knowledge vital to policy makers, trainers and practitioners who work with global issues in government agencies, private firms and NGOs.

1.9.7. Teaching methods: Active participation is vitally required in lectures and seminars. The presentations are oral and written as well, and students are encouraged to organise their literature on the relevant topics. At the end of the course, a written or oral examination on the acquired knowledge will be offered.

1.9.8. Exclusivity of the Master's programme: In the third semester, students are able to choose courses of their own personal interest, to the value of 30 ECTS, which they attend at Lund University or also abroad.

1.9.9. Internship: Not compulsory.

1.9.10. Semester abroad: As mentioned above, the choice is given to the students whether they go abroad or not. If they wish to do so, they can undertake courses of their own interest to the value of 30 ECTS.

1.9.11. Possible employment areas: The programme provides qualifications for employment as policy makers, trainers and practitioners working with global issues in government agencies, private companies or NGOs.

1.9.12. Sources: Information: Global Studies Lund 2013. Curriculum: Global Studies Lund 2012.

1.10. Master's Curriculum Global Studies (GS), University of Gothenburg, Sweden

1.10.1. General information: 2 years, 120 ECTS, academic degree: Master of Global Studies.

1.10.2. Admission: Bachelor's degree (generally a 3-year degree with honours), from a university or college recognised by UNESCO with/and a minimum of 30 higher education credits in a discipline within the field of Global Studies or equivalent.

1.10.3. Subject: The course contents are concerned with issues of globalisation, ethnicity, cultural diversity and different world views. Disciplines are development theory, international relations, regional studies (Africa, Asia, Latin America, and Middle East), and social anthropology. This multi- and interdisciplinary Master's programme focuses on the area of research. The aim is, in the context of global processes and their effects, to prepare students for independent work in the use of research questions, concepts, research methods and evaluation.

1.10.4. Structure of the programme: 2 basic modules, 2 specialisation modules, 1 methodology module, 1 practice module, 1 Master's module. The Gothenburg School of GS comprises four disciplines: human ecology, regional studies, social anthropology, peace and development Studies.

1.10.6. Mission: 'The overall aim of the Global Studies programme is to provide advanced knowledge within the interdisciplinary field of global studies. The programme will provide students with a basis for both post-graduate research and professional employment within a range of international and national organisations. Skills taught will be useful in areas such as development cooperation, humanitarian assistance, cultural diversity and integration programmes, and environmental planning and analysis. Special emphasis is also placed on independent work methods, critical assessment and the ability to solve problems' (Global Studies Gothenburg 2012).

1.10.7. Teaching methods: No concrete information but emphasis on practical experience and application of the learned theory into practice.

1.10.9. Internship: Selectable between an internship or a 'field course' (abroad). It is also possible to combine this with the Master's module.

1.10.12. Sources: Information: Global Studies Gothenburg 2013. Curriculum: Global Studies Gothenburg 2012.

1.11. Master's Curriculum International Development, University of Birmingham, UK

1.11.1. General information: 1 year full time or 2 years part time, 120 ECTS, academic degree: Master of Science (MSc).

1.11.2. Admission: University degree required for admission to study is a degree in an adequate preliminary subject or other equivalent studies at a recognised domestic or foreign educational institution, or a 'graduate diploma'. Languages spoken: English (for non-native): 237 TOEFL, great emphasis is placed on work experience. Tuition fees for international students.

1.11.3. Subject: 'The focus of this programme is on challenges facing developing and developed countries in the fight against global poverty and on gaining knowledge about problems of proposed approaches to poverty reduction. Theories and history of development, practical policy, programme and research skills as well as changing approaches to poverty reduction are taught' (International Development Birmingham 2013).

1.11.4. Structure of the programme: Basic module of 20 ECTS, critical access to development: 100 ECTS, selected from more than 25 modules, research on a topic and in

a place of one's choice, specialisation is possible in the following areas: poverty, inequality and development, conflict, security and development, international political economy and development, government, nation building and development, urban development, which appears in the title of specialisation including: MSc International Development (urban development).

1.11.6. Mission: The programme offers students the opportunity to explore the fight against global poverty and to understand the issues in developing countries in order to reduce poverty.

1.11.7. Teaching methods: Courses with an immanent examination character.

1.11.8. Exclusivity at the University: Own branch of study at the International Development Department, University of Birmingham.

1.11.9. Internship: Research internship abroad is possible for 4–6 weeks, but not required.

1.11.10. Semester abroad: Recommended, not compulsory.

1.11.11. Possible employment areas: (International) development cooperation, NGO's, donor or government funded development programmes.

1.11.12. Sources: Information: International Development Birmingham 2013.

1.12. Master's Curriculum GS and International Affairs Northeastern University, Boston, USA

1.12.1. General information: 2 years, 46 US-Credits (~80 ECTS), academic degree: Master of Science (MSc).

1.12.2. Admission: For admission a completed Bachelor's degree is required. Furthermore, students have to write a statement of purpose (500–1000 words) about their educational goals and expectations from this programme. Additionally, two letters of recommendation and an English Language Proficiency Proof (TOEFL, IELTS) is necessary.

1.12.3. Subject: The programme provides a deeper understanding of the **economic, political, and cultural shifts** that impact organisations' way of doing business. The courses in the programme provide a multi-perspective view on the factors which are needed to lead and thrive in a global environment. The overall aim of the programme is to get an understanding of the multifaceted political and economic backgrounds of the expanding global world. The impact of the globalisation of politics and different economic systems is analysed. Moreover, students should get an understanding of using qualitative methods in the analysis of culture and communication. In addition, the social responsibility of organisations and individuals is taken into account.

1.12.4. Structure of the programme: The programme consists of three different types of courses: the basic courses, concentrations and free electives. Initially, the five basic courses make up 24 Credits and are mandatory for all students. They consist of Political Philosophy, Globalisation and Global Politics and Economics, Global Literacy, Culture and Community, Global Corporate and Social Responsibility and Basic Field Research Methods. Moreover, there are four concentration areas out of which the students can choose one and select courses to the value of 16 to 19 credits. These concentration areas are Conflict Resolution, Global Development, Global Health and Non-Profit Management. Finally, there is a choice of electives from which the students have to gain 6 to 8 credits. At the end of the programme the students can choose between writing a thesis and doing a case study.

1.12.5. Philosophy: The programme aims to provide economic, political and cultural tools in order to deal with globalisation. By analysing key issues from a multidimensional perspective the students should gain a good understanding of how to react to the changes caused by globalisation. In addition to the multidimensional view, the programme focuses on practical knowledge transfer in order to demonstrate the reality of living in a global society. To put this into practice the programme brings together students and experts from different areas so that they are well prepared to act and react in a global environment.

1.12.6. Mission: Due to globalisation the scope of action of organisations, as well as the relationship between individuals, has changed a lot. Therefore, an intercultural and interdisciplinary perspective is essential to deal with the cultural, political and economic challenges of globalisation.

1.12.7. Teaching methods: There are four different types of course formats: on-campus (on-ground), online, blended and hybrid. The first type means that classes are held face-to-face on campus by the instructors. The lecturers often have different backgrounds, both public and private sector, to ensure a multidimensional perspective. The online course means that lectures, lessons, and exercises are available online and there are no personal meetings on a regular basis. A blended course format means that besides the regular sessions every week, there are contents and discussions available on an online platform. The participants of a hybrid course have some in-class meetings on campus but most of the topics are covered online.

1.12.8. Exclusivity of the Master's programme: The programme is available 100 % online.

1.12.9. Internship: Not compulsory.

1.12.10. Semester abroad / stay abroad: Recommended but not mandatory.

1.12.11. Possible employment areas: Possible employment areas are in international business, international relations, journalism, defence, international security, research, non-profit management, and community-based, non-governmental organisations (NGOs).

1.12.12. Sources: Information: Northeastern University Boston 2013. Curriculum: Northeastern University Boston 2012. Admission and language proficiency: Northeastern University Boston 2011.

1.13. Master's Curriculum Globalisation and International Development (University of Ottawa)

1.13.1. General information: academic degree: Master of Arts (MA) with two official languages (English and French), and two options.

1.13.2. Admission: Bachelor's degree in international development and globalisation or a related field (*e.g.*, international studies and modern languages, environmental studies, religious studies, economics, geography, history, sociology, political science), or an undergraduate law degree. Also, students have to pay college tuition.

1.13.4. Structure of the programme: Two options: M.A. with research paper (30 credits total) and M.A. with thesis (18 Credits total). The M.A. with thesis is only available after special permission from the programme committee.

1.13.5. Philosophy: An interdisciplinary graduate programme focusing on the dynamics of globalisation and international development. Students are provided with the training needed to address complex, multifaceted problems that may simultaneously encompass economic, political, social, cultural, religious, legal, ethical, and environmental elements.

1.13.6. Mission: The programme benefits on the expertise of different scientific fields, such as economics, geography, history, law, political science, religious studies, sociology and anthropology. The interdisciplinary approach tries to tackle the challenges of an interdependent and changing world.

1.13.7. Teaching methods: The courses are held in both official languages (English and French).

1.13.12. Sources: Information: Globalisation and International Development Ottawa 2013. Handbook and curriculum: Globalisation and International Development Ottawa 2012.

1.14. Master's Curriculum Global Affairs, University of Toronto, Toronto, Canada

1.14.1. General information: 2 years, academic degree: Master of Global Affairs (MGA).

1.14.2. Admission: A four-year Bachelor's degree or equivalent and a cumulative grade point average (CGPA) of mid B and B+ in the final year are required to be admitted. Above that, basic competencies in statistics and economics are taken for granted in order to embark on the International Economics core course.

1.14.3. Subject: The Master's programme tends to impart knowledge in economics, politics, and the social architecture of global affairs. All students receive a strong grounding in global institutions, the global economy and finance, and global civil society. After being equipped with both theoretical and practical core competencies, students specialise in global economy and markets, global institutions or global civil society. Finally, graduates should be able to accelerate their careers in business, government and NGOs.

1.14.4. Structure of the programme: In year one, basic core courses in the development of the global system, international economics, global civil society, global policy analysis, etc. are to be attended. Before the second year, students are obliged to take a mid-programme internship before they specialise in, for instance, geopolitics of cyberspace, corporate social responsibility, global governance, and so on. Additionally, students are required to take part in a lab course and to undertake a major project where they shall use the tools they have acquired in the programme.

1.14.5. Philosophy: The focus of this programme is to offer students the hard and soft skills they need to persist in their field of specialisation. Graduates shall understand the broader economic, political and social architecture of global affairs. Furthermore, the MGA programme aims to prepare students for strategic thinking and responsible leadership on global issues.

1.14.6. Mission: The University of Toronto's MGA programme intends to educate their students not only in the core functional disciplines, but also in tasks relevant to the global society. Students shall be equipped with analytical methods and practical management skills in order to succeed in the working environment.

1.14.7. Teaching methods: According to the curriculum, the content of the first semester is presented by the teachers in classes and tutorials, whereas in the second semester, courses are offered almost exclusively with continual evaluation.

1.14.8. Exclusivity of the Master's programme: The required mid-programme internship enables contacts with top-tier businesses, international and national institutions, and civil-society organisations. It brings scholars and practitioners together to ensure that student thinking is informed by rigorous theoretical work as well as real-time, real-world experience. Beyond that, students are encouraged to study abroad for one semester.

1.14.9. *Internship*: Mid-programme internship between the first and the second semester.

1.14.10. *Semester abroad*: It is intended that students study abroad in one of the four semesters without a special time limit. A semester abroad is recommended but not compulsory.

1.14.11. *Possible employment areas*: There are no specific fields of work mentioned, but networking opportunities will be available to the students while they are attending the programme. Furthermore there is a career centre that helps graduates finding a job.

1.14.12. *Sources*: Information: Munk School of Global Affairs 2013.

1.15. Master's Curriculum Global and International Studies, University of California, Santa Barbara, UCSB

1.15.1. *General information*: 2 years, at least 69 Units, since 2006, Master of Arts (MA).

1.15.2. *Admission*: GPA of at least 3.0, two years completion of foreign language skills courses with a minimum grade B for students of a foreign country: TOEFL language test with at least 600 points or 94 points (online), or IELTS: 7.

1.15.3. *Subject*: The focus lies on global processes, interactions and flows and the problem of application and validity of historical models for international relations in today's world. Students who want to engage in the global civil society later in their lives are welcomed for this program as well. Additionally, the program places emphasis on the debate over whether the world is in an epochal transitional stage or keeps shaped primarily by the interplay of nation-states.

1.15.4. *Structure of the programme*: The curriculum is sectioned in three areas of specialisation: global culture, ideology, and religion; global governance and human rights; and political economy, sustainable development and the environment. Further disciplines: anthropology, area studies, economics, English, environment, law and society, Middle East, politics, religion, sociology, women's studies.

1.15.5. *Philosophy*: The program intends to provide an understanding of the economic, political, social, and cultural forces that are shaping global organisations. Due to the ever-more important role of NGOs in global crises and in times of political polarisation, the degree should be a desirable and effective solution to challenges of governance in an increasingly globalised world. It is aimed to prepare students for a variety of careers in the international area and to interfere an understanding for global issues.

1.15.6. *Mission*: The Master's programme provides a variety of backgrounds, academic competences, work experience, study experiences abroad and global travel. Overall, the multicultural diversity among students enriches the study.

1.15.8. *Exclusivity*: Preferably the students should prove two years of foreign languages, which are required to receive the academic degree. At the very least two years of foreign language skills must be proven at the submission of the graduation.

1.15.9. *Internship*: Three- to six-month internship and/or study abroad.

1.15.11. *Possible employment areas*: International NGOs, foreign service, government agencies, international business, followed PhD with a similar focus or further graduate study in international affairs, international business, peace and world order studies, area studies, and the global civil society.

1.15.12. *Sources*: Information: UCSB 2013, Global Studies Consortium 2013.

1.16. Master's Curriculum Globalisation, Australian National University ANU Canberra

1.16.1. *General information:* 2 years, minimum of 48 units, since 2013.

1.16.2. *Admission:* Completion of a four-year Bachelor's programme (Bachelor's programmes in Europe only have a duration of three years; this could be an explanation for the shorter duration of the Master's in Canberra⁷).

1.16.3. *Subject:* The aim of the interdisciplinary Master's programme is especially to deal with two important questions: How can we explain, understand and evaluate the rapid changes in the world? What is globalisation and what are its implications?

1.16.4. *Structure of the programme:* Disciplines: international environmental economics, international law, immigration, refugees and development, development in the Third World and additional, selectable courses in the fields of environment, culture, development, law and economics.

1.16.6. *Mission:* By using problem-based learning, the core concepts of economic mechanisms of globalisation are taught in order to use practical information from the daily business of the NGOs and government organisations.

1.16.8. *Exclusivity of the Master's programme:* The study is designed for those who wish education at an academic level in research, but also for young professionals who want to gain the ability to use theoretical facts in practice and apply concise analysis techniques.

1.16.11. *Possible employment areas:* International NGOs, foreign service, government agencies, international business, or following PhD with a similar focus.

1.16.12. *Sources:* Information: Globalisation Canberra 2013.

Starting from here, this (admittedly incomplete) overview of Master's curricula presents selected Bachelor's curricula for the readers' further information.

1.17. Bachelor's Curriculum Global Studies at Wilfrid Laurier University, Canada

1.17.1. *General information:* 4 years with post-degree study options (Master of Arts Programme in Global Studies), starting in 1990, academic degree: Bachelor of Arts.

1.17.2. *Admission:* there are no admission rules for the Bachelor's Programme.

1.17.3. *Subject:* Global Studies, comparative development, peace and conflict, globalisation and culture.

1.17.6. *Mission:* The course aims to give students an understanding of the world as a whole. Its interdisciplinary nature aims at supporting this understanding. It covers global issues for global companies and events as they occur constantly nowadays. Students could either cover the broad spectrum of this study, or they may specialize in one or more of the disciplines. The completion of a certain number of language courses is mandatory. Furthermore, in addition to the evidence of courses the social aspects are very important. Post-Degree Study Options (Master of Arts Programme in Global Studies or other disciplines such as Anthropology, Sociology and Political Science).

1.17.12. *Sources:* Information: Wilfrid Laurier University 2013.

1.18. Bachelor's Curriculum Global Studies, University of Los Angeles UCLA

1.18.1. *General information:* Academic degree: Bachelor of Arts (B.A.).

⁷ Regarding the duration of the studies, there is a difference between the ECTS points (European Credit Transfer System) and the Units (credits in the English speaking world). There is no uniform standard. Every university independently prescribes how many ECTS a Unit at the University is worth, and *vice versa*. For example, for 1 Unit 2 ECTS credits can be rewarded, or 2 Units can be the equivalent of 3 ECTS points.

1.18.2. Admission: In order to be permitted to study this programme, proof of good English competency is necessary. Furthermore, a GPA⁸ of minimum 3.25 is required for the Major programme.

1.18.3. Subject: The aim of this programme is to create an interdisciplinary understanding of the globalisation process and its consequences. The students learn about the multifaceted global interrelations. By doing so, the programme focuses on three main pillars of globalisation, namely culture and society, governance and conflict and markets. Due to the research orientation of the programme the students are encouraged to use their acquired knowledge and shape their own future.

1.18.4. Structure of the programme: The students complete nine different courses which are distributed over four terms. Students studying the programme as a major have to do a Summer Study Programme, which consists of two research-oriented courses.

1.18.5. Philosophy: The aim of the programme is to realise and understand the different dimensions of the globalisation and interconnectedness of the world and its increasing significance.

1.18.6. Mission: The mission is to analyse the different relations and dependencies all around the globe. Additionally, it is crucial to challenge the existing geographical and political borders. From an interdisciplinary perspective on the globalisation process, the programme tries to provide an understanding of the complex and dynamic world.

1.18.9. Internship: Not mandatory.

1.18.10. Semester abroad: Major students need to complete a Summer Travel Study Programme which can be done at various different places throughout the world.

1.18.12. Sources: Information: Global Studies UCLA 2013.

1.19. Bachelor's Curriculum Global Studies, Vancouver Island University (VIU)

1.19.1. General information: Bachelor of Arts, Major (also Minor), 2 years, 120 ECTS.

1.19.2. Admission: Minimum of 54 credits with a minimum 2.0 (C) grade point average over the last 24 credits attempted; 12 credits of post-secondary language (other than English) and/or culture studies, or equivalent; 3 credits of statistics/research methodology.

1.19.4. Structure of the program: Basic courses (33 ECTS), specialisation: human security and global governance, human development environment, sustainable development and resource management, international economic relations.

1.19.5. Philosophy: Global Studies focuses on: international economic developments (emergence of transnational corporations, trading blocs, international economic organisations, international business practices and issues), social and cultural developments (inequality and social justice concerns, ethnic and intercultural relations, population and health issues, technology and society *etc.*), world regions and human environments (distribution, supply, and use of natural resources, environmental change, sustainability and human impact, water issues), and contemporary political systems (prospects for state sovereignty and political change, international conflict, international governmental and non-governmental organisations, prospects for world order, development of international law in environment, human rights *etc.*).

⁸ GPA = grade point average, way of stating the average grade in the USA.

1.19.6. *Mission*: The Global Studies programme examines the causes and effects of, and responses to, globalisation from a multidisciplinary perspective, drawing on insights from the academic disciplines of anthropology, economics, geography, political science, and sociology. The programme is designed to impart the skills and knowledge to understand, live and work in an increasingly interdependent and changing world.

1.19.7. *Teaching methods*: Courses are individually and/or team-taught by faculty from these social science disciplines and create an inclusive learning and social environment that provides, by its nature, an opportunity for students from diverse backgrounds to learn from each other. Practical research is carried out by fieldwork abroad and in cooperation with NGO's.

1.19.9. *Internship*: Optional GS internship programme at VIU.

1.19.10. *Semester abroad*: Optional.

1.19.11. *Possible working fields*: Graduates of this programme are trained to continue further studies or follow careers in the following fields: law, journalism, international business and marketing, international economic and social development, and areas of human rights and social justice.

1.19.12. *Sources*: General description: Global Studies Vancouver 2013. Internship: Global Studies Vancouver 2012.

1.20. Web-based process for collaborative writing and reviewing

Regarding the procedure of authoring the present paper, a *technology-enhanced* process was used during the past three years. On a learning platform (WebCT) the authors as student colleagues posted the contributions and performed a peer review (typical example in Fig. 2). Such peer review processes enhance the academic quality of the texts in a stepwise manner and allow seeing the work products of earlier colleagues (Ahamer 2011: 14). If measured quantitatively by metrics of weekly semester hours, one single contribution of one co-authoring student to the present paper amounts to as little as 0.02 semester hours; in other words less than 0.5 % of the 'basic lecture GS' totalling 15 ECTS, hence ~0.1 ECTS per co-author. The theme of the present paper is only one out of fifty themes dealt with in facultative assignments; hence other work products by GS students will be published later.

In order to conclude Section 1, the authors state that multicultural university curricula on development are a prime opportunity to foster understanding of globalisation and even development. Education and research regarding unequal development dwells on multidisciplinary understanding of the complex social fabric of regions, states and transnational communities.

Quality assurance poses more requirements than usual when exercised in multiparadigmatic environments where manifold world views, interests and academic disciplines claim their meaning to be decisive. 'Inclusion through multiperspectivity' facilitates consensus.

For these targets, pedagogy of equity may increasingly make use of technology-enhanced, web-supported and managed learning environments, such a distributed collaborative learning in a peer community of students and trainers (who are considered to be learners as well).

Fig. 2. The screenshot of a typical review process among students on the comparison of developmental theories, analogous to the process leading to the present paper

Exogene vs. endogene Entwicklung

... allen Übels in den Entwicklungsländern hatte
 ... die ökonomische Entwicklung der heute
 ... en und fortgeschrittene Kulturen durch die
 ... führung der indischen Seidenmanufaktur durch den
 ... ichtzeitig hat der Kolonialismus die Schranken des
 ... i. Marx in dem Artikel über die „Die britische
 ... lger 1996).“
 ... imächten beherrscht wurden, waren vor ihrer
 ... versorgung selbstständig zu bewerkstelligen, was
 ... it also nach der Kolonialzeit offensichtlich eine
 ... inden.“
 ... es Kolonialismus kommt in den 1970er Jahren der
 ... h die hohe Verschuldung der Entwicklungsländer
 ... Dritten Welt ist seit dem Jahre 1980 von 580
 ... llar im Jahr 2004 angestiegen (vgl. Ziegler 2005,
 ... im Rahmen eines Schuldensenkungsprogramms 27
 ... n 54 Milliarden Dollar – was zwei Drittel der
 ... konnte doch kein Wachstum ausgelöst werden
 ... verschlingt den größten Teil des Haushaltsbudgets
 ... der jeweiligen Staaten. Droht diesen Ländern
 ... NF und von den Gläubigern unter wirtschaftlicher
 ...
 ... lung vor allem in Afrika, ist der Jahrzehnte lange
 ... ndenen Ressourcen der jeweiligen Staaten, was
 ... onialzeit ist. Man möge meinen, dass natürlich
 ... führen, aber offensichtlich wirken sich große
 ... ntwicklungsländern als wachstumshemmend aus,
 ... knapp 30 Prozent der ärmsten Milliarde in der
 ... rohstoffreichtum bestimmt wird. In diesen Ländern
 ... Durch die Rohstoffexporte gewinnt die inländische
 ... n an Wert, was zur Folge hat, dass die
 ... güter maßgeblich beeinträchtigt und schließlich
 ... verdrängen Wirtschaftssektoren der industriellen
 ... das letztendlich zum Erliegen kommt (vgl. Collier
 ...
 ... besteht darin, dass Ressourceneinnahmen zu einer
 ... ren [...] Das neue Gesetz des Dschungels nach
 ... ressourcenreichen Landes abläuft, könnte lauten:
 ... „Survival of the fittest.“ (Collier 2008, S. 63).“

Kommentar [GA1]: Beleg dafür ist auch Muschelet 1996? Gut, Beispiele zu bringen?!

Kommentar [j2]: Gutes Beispiel!?

Kommentar [s3]: Ja, Beleg ist Muschelet 1996?

Kommentar [j4]: Eventuelle eine Erklärung nötig, was mit Schranken des Provinzialismus genau gemeint ist?!

Kommentar [s5R4]: Um eine genaue Definition zu bekommen müsste man bei Marx nachlesen, aber ich denke es ist aus verständlich was damit gemeint ist.!

Kommentar [j6]: Etwas unklar, woher diese Behauptung stammt. Auch von Muschelet?!

Kommentar [s7R6]: ja diese Behauptung stammt von Muschelet 1996. Hätte noch zu vorigen Absatz gehört, sorry!

Kommentar [GA8]: Gute Schilderungen – konkreter Beleg bzw. Zitat?!

Kommentar [s9R8]: Wenn man die Medien zu diesem Thema ein wenig verfolgt und sich die jüngere Geschichte einiger Entwicklungsländer ansieht, kann man durchaus diesen Schluss ziehen. Auch Ziegler beschreibt diese Praxis des IMF (Ziegler 2005)?!

Kommentar [GA10]: Wissen wird das sein?!

Kommentar [s11R10]: Natürlich kann man diese Aussage von Collier in Frage stellen.!

Kommentar [GA12]: Sind es die Erträge als solches oder die institutionellen Strukturen zu ihrer Verwertung oder etwas anderes?!

Kommentar [j13]: Wieder ein gutes Beispiel!?

Kommentar [GA14]: Ist natürlich interessant, mal so ein (romantisches) Satzwoort zu haben, aber im durch den Titel gegebenen Spektrum müsste dieser Autor dann noch verortet werden.!

Kommentar [GA15]: Kann auch der Mechanismus dafür argumentativ hergestellt werden?!

Kommentar [GA16]: Den Dschungel analytisch/funktionsbildend? -?!

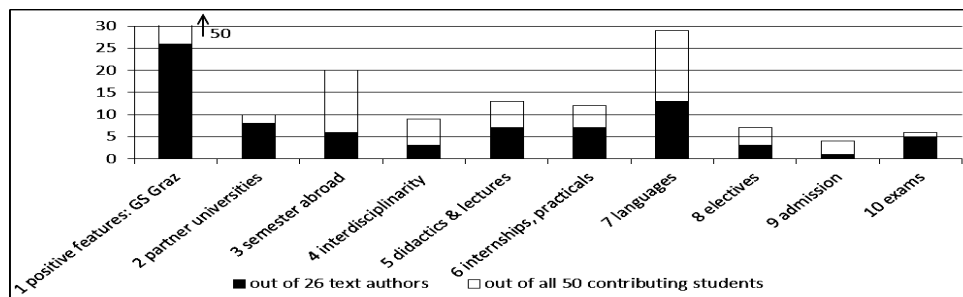
Kommentar [s17]: Um die Fragen zu diesem Zitat im Detail beantworten zu können, reicht die Textvorgabe von 1,5 Seiten leider nicht aus.!

The above analysis of curricula performed by the authors, however incomplete, facilitates the overview of various approaches to Global Studies that are geo-referenced in Fig. 1.

On this basis and on the basis of original contributions during own studies, in Section 2 the authors suggest the following improvements for any Master's curriculum GS.

2. Suggestions for Improvement of Master's Programs on Globalisation and Development

This Section 2 first includes positive features of developmental curricula using the case of Graz (Section 2.1) and continues with concrete suggestions for improvement from the authentic point of view of the authoring students (Sections 2.2 to 2.10) while using their Graz curriculum as a case. Fig. 3 provides an overview of how often which theme of suggestions was named by (a) the authors of the present paper (full bars) and (b) by all fifty students dealing with this issue during that last three years in the web platform (full + empty bars).

Fig. 3. Statistics of the themes to which the suggested quality improvements pertained

Note: The numbering (1 to 10) equals the subsections 2.1 to 2.10 on the following pages. It is visible that practically all students have provided argumentation why the curriculum 'Global Studies' at Graz University is very suitable for their needs (Item 1). Most suggestions for improvement pertain to foreign languages, either as offered courses or usage of English in GS courses.

2.1. Positive features of developmental curricula using the case of the GS Graz curriculum

According to year-long own practical experience of the authors, the Master's programme Global Studies at Graz University generally stands out with its interdisciplinary approach and the large variety of opportunities for specialisation in different scientific disciplines from all faculties of the university. These features of the Master's programme enable students to approach the broad topic of globalisation with an at least equally broad spectrum of approaches and scientific perspectives, as well as gaining the essentially needed comprehensive view of the topic of globalisation. The previously described 'basic module GS' (Ahamer 2012a: 203 or above in Section 1.1.4) especially offers a wide overview of the different disciplines and may also raise interest in research areas that were not originally considered as some students' field of interest. The opportunity to focus on two or more main areas allows the students within this Master's programme to meet their individual interests. This possibility may prove advantageous in the students' further professional life, as their individuality will allow them to stand out. Another special feature is the compulsory internship that offers a good extension to the theoretical basics of the first semesters. The practical application of the knowledge gained in an internship can be used on the one hand for networking and on the other hand may also generate potential future employers.

2.2. Quality improvements regarding partner universities

To put it simply, cooperation with international partner universities is seen as essential, as all the aforementioned Master's programmes adorn themselves with the terms 'global' and 'international'. Therefore not only should student exchanges be easily available but also mutual support in the field of teaching and research should be encouraged.

The University of Freiburg (Global Studies Freiburg 2012, or above in Section 1.5.4) can be seen as a very positive example, as it promotes inter-continental relations by providing students the opportunity to capture the international character of the Global Studies degree not only in theory but also to experience life on two different continents.

This enables a more interdisciplinary approach in teaching as well as learning from different perspectives. Although many universities recommend studying abroad using the university mobility programmes, they do not offer any exclusive exchanges. The aims of strengthening intercultural communication skills and promoting a cosmopolitan attitude could be better achieved with the cooperation of one or more partner universities. Short-term student exchanges and guest lectures by professors from different universities would enrich all participants.

Another positive example is the 'Global Studies Consortium' coordinated at the University of Columbia, Santa Barbara (UCSB 2013). This consortium brings together numerous Global Studies programmes worldwide: Aarhus (DK), Berlin (GER, cf. GSP 2013), Leipzig (GER), Vienna (AUT), Tokyo (JAP), Shanghai (PRC), the M.A. Globalisation ANU Canberra (AUS), and many others. The goal of this consortium is to promote the exchange of ideas about curricula and teaching programmes, the exchange of teaching materials to develop surveys of the career paths of students and ultimately the promotion of exchanges between the respective universities (Global Studies Consortium 2013). This is one way of enabling offers for student exchange programmes and making it easier for students to complete internships as well as studying abroad worldwide. Nevertheless, students in higher education areas are able to act in a self-responsible manner and thus should involve themselves actively in this process.

2.3. Quality improvements regarding semester abroad

Due to the international focus of these studies a semester abroad can certainly be seen as an academic, cultural as well as personal enhancement for students. Besides the multitude of advantages, the high costs of staying abroad are often a big barrier, therefore financial aid is an area in which improvements are requested and needed. However, not only are the financial components essential for enabling the largely smooth processing of preparation procedures, but also support in getting information and raising awareness of student opportunities during their years of studies. One possible implementation could be the introduction of Joint Master's programmes, which would also allow the courses to become internationally competitive. Under these conditions, many students would declare themselves in favour not only of a recommended, but also of a compulsory, semester abroad.

2.4. Quality improvements regarding interdisciplinarity

An interfaculty cooperation as it is strongly implemented, for example, at the University of Graz would be a first step for increased interdisciplinarity. The Master's programme at Graz is not organised by just one institution or faculty, but different faculties are participating in the programme. In this way, the theoretical foundation for the students is greatly extended. The University of Lund (Global Studies Lund 2012, or above in section 1.9.5) attaches great importance to an interdisciplinary approach and can be cited as a positive example as well. In a broader sense, interdisciplinarity can also include language skills and therefore the offer of a wide range of language courses would be an improvement within these programmes.

Suitable improvements are that lecturers do actually implement interdisciplinarity an integrative view based on professional experience in their contributions to the curriculum. Administratively and scientifically, the interfaculty character of GS Graz should be reinforced and the material basis for this curriculum has to be secured in the long run.

2.5. *Quality improvements regarding didactics and lectures*

Basically, long-term learning, practical application of the acquired knowledge as well as a critical approach should be enabled in an adequate framework of any study programme. These features can be promoted through fostering active participation by students, even if learning types differ.

Acquiring knowledge independently or in groups, writing academic papers (Pany 2013; Ahamer 2011, 2012a) and preparing presentations as part of different types of courses are some examples of how students can actively participate. In some universities, such as the University of Toronto (Munk School of Global Affairs 2013) and Lund University (Global Studies Lund 2012) this is particularly encouraged. The course system of the Anglo-Saxon model has some advantages that could be taken as a role model because of, for example, more comprehensive courses, with more ECTS, which enables deeper understanding due to more time being available for instruction. Furthermore, discussions in the scope of courses between students and lecturers as well as so-called ‘panel discussions’ (which help to prepare for discussions and involve representatives from the government, the world of business, *etc.*) serve as a preparation for future situations in the workplace and should be increasingly conducted in courses.

So-called ‘Interdisciplinary Practicals’ (IP) as they are offered at the University of Graz in the curriculum Environmental Systems Science (USW 2013) and similarly for the Salzburg GS curriculum, are a special interactive form of teaching that other curricula and other universities could also offer in their course programmes. A very positive aspect of these kinds of courses is the continuous participation of students (Altmann *et al.* 2013; Ahamer 2012b), which could avoid the pressure of excessively comprehensive exams at the end of the semester (for further explanation see chapter 2.10).

Especially for the GS type of Master's programme, with a focus on interdisciplinarity, it is important that students from various preliminary studies gain some basic knowledge (terminology, basic models, *etc.*) from other disciplines. This could be enabled, for example, in the form of preparatory tutorials designed to help students attain an approximately equal level of knowledge prior to commencing a Master's programme (cf. section 2.4 on interdisciplinarity).

Furthermore, courses in research methodology would be gladly accepted, as at for example the University of Vienna (Master's Program International Development, section 1.2). Students thus could get to know which methods are applied in the various disciplines and how to combine them.

Besides, excursions, summer/winter schools and different projects that could be a fixed part of the curricula would provide diverse and effective knowledge transfer and offer a valuable addition to the theoretical parts of academic life. National as well as international projects are important opportunities for students to obtain different views beyond the university realm. These suggestions are often an effort for students and teachers and also involve additional financial expenditures that nevertheless should be made because of the success and improved quality of sustainable learning.

To support the area of teaching, new media can also be incorporated. Web-based collaboration and digital transfer of learning materials facilitate the exchange of information enormously, as was evidenced for the ‘basic lecture GS’ through independent empirical surveys (Bader and Zotter 2012: 132; Bader and Köttsdorfer 2013; Ahamer *et al.* 2011: 26–30) and backed by anonymous surveys among participating students.

The selected approach for the section ‘social and human geography’ in the 2010 basic lecture GS in created a communication density amounting to tenfold or twentyfold as compared to mere face-to-face lectures (Ahamer 2011: 15).

Generally, a flexible arrangement in curricula is advocated in order to allow individualisation and possibly employment while studying. Some universities already make it possible to complete a PhD programme, such as in California (UCSB). Such PhD extension could be beneficial especially when implemented in cooperation with other international universities.

2.6 Quality improvements regarding internships, practicals etc.

Internships are a good addition to theory based courses designed to gain practical experience which is required in the labour market. Nevertheless, internships may pose some difficulties. First of all, it is important that universities establish contacts with (domestic and foreign) partner organisations and companies for facilitating students to complete various internships in different areas, for example, in environment area (Müller *et al.* 2013), human rights organisations or in political fields, etc. At this point the University of Gothenburg (Global Studies Gothenburg 2013, or above in Section 1.10.9) could be mentioned as a positive example that was able to facilitate placements in embassies and foreign ministries. Excursions, such as to international organisations/institutions, are one possible activity, that could facilitate contacts for future internships. University-based research or the possibility to complete (compulsory) internships at different organisations allow for implementing practical experience more easily and make the study programme more diverse.

Another important aspect in the field of internships is the financial facet. Internships are often unpaid and students often have to cover their own expenses (*e.g.*, travel costs *etc.*). The possibility of completing (compulsory) internships abroad should be optional, as this on the one hand is associated with higher financial expenses and on the other hand, some students may be bound by an on-going employment contract in their home country. Furthermore, a non-bureaucratic recognition of internships would considerably simplify matters.

Finally, internships should provide an orientation and in the best case create potential contacts for future employment. Trade fairs and exhibitions presenting internship opportunities such as the one which was successfully organised by Global Studies Graz students could provide another platform for students to exchange their experiences.

Another example, which is already embedded in the Curricula of Global Studies Graz, is a separate course which supports students during or after completion of their internship in reflecting and analysing their practical experiences. At the end of the course, a report detailing the experience should connect the internship programme with the content of the Master's programme. As an example, during SS 2012 during this compulsory course ‘Analysis of Practice’ the process of report writing was managed in web-based manner: all students wrote and subsequently reviewed a professional report about their internship experience in group work and additionally authored a paper (Duraković *et al.* 2012). When collected across years, such reports could be used to offer future students insight and assistance with their internships.

Overall, many students seem to advocate compulsory internship programmes, if difficulties such as financial aspects are likely to be overcome with support, for example, from universities or the government.

2.7. Quality improvements regarding languages

Both the course content and the subsequent professional activities of the students of these study programmes are designed with a decisive international focus. Accordingly, solid language skills (at least in English) are not only important, but to some extent are also a prerequisite for a successful career and for later professional life, as they are often desired and expected by future employers. Specifically, lecturing in other languages than one's mother tongue, as well as an expanded range of language courses, would lead to improved and expanded language skills. Implementation in the form of elective bundles or even compulsory language courses designed to teach professional vocabulary and basic language skills, such as communication skills, could be envisaged.

Another possible course of action would be to introduce specific language skill requirements. At the University of Leipzig, for example, students have to demonstrate a minimum level in English and two other languages (at least B2 level, cf. Europass 9 and Goethe Institut¹⁰). Furthermore, language tests such as TOEFL could serve as prerequisites. These suggestions would be advantageous inasmuch as no substantive cuts to the subject matter would be necessary within the limited time of 4 semesters and 120 ECTS. If this procedure were to be introduced, there would be a need for fair regulations determining when these skills would have to be completed to ensure similar opportunities for all applicants. Additional courses could be held in other languages without difficulties in comprehension, which may also increase the number of foreign students, and thus promote interculturalism.

2.8. Quality improvements regarding electives

Achieving the interdisciplinary approach of these types of Master's programmes is possible by means of electives. An interfaculty cooperation, as it is strongly implemented for example at the University of Graz, would be a first step toward increased true interdisciplinarity. The Master's programme in Graz is not organised by just one institution or faculty, but different faculties are participating in the programme. In this way a sufficient range of courses from different disciplines can be offered to enable a comprehensive approach, which greatly extends the theoretical foundation of the students. The University of Lund attaches great importance to an interdisciplinary approach and can be cited as a positive example as well.

Regarding the electives, however, an even distribution of courses from different areas of knowledge is required. At the University of Graz, for example, it would be desirable to offer a greater choice of elective subjects of specialisation, especially in the fields of history and environment, climate and technology. In addition, a uniform distribution of the courses offered in the spring and fall semester are preferable. In a broader sense, interdisciplinarity can also include language skills and therefore a wide range of language course offerings would be beneficial in the course of these electives/programmes.

Several expressions of student opinions underline that clear, solid quality and a high professional level during courses and electives are helpful to guarantee substantial quality

⁹ European Language Levels. URL: <http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr>.

¹⁰ Gemeinsamer europäischer Referenzrahmen für Sprachen. URL: <http://www.goethe.de/z/50/commeuro/302.htm>.

of the entire curriculum and its international clear acceptance. Such attitude is supported by lecturers.

2.9. *Quality improvements regarding admission of students*

Often problems occur in the admission process of Master's programmes. On the one hand, they are based on the limited admission ability of the universities and on the other hand, on the professional requirements. In Master's programmes with admission requirements, the introduction of an application process, which would determine in advance whether students are suitable for this programme, would be a possible procedure. The advantages of such a proposal are a reduction in the number of student dropouts and a continuous increase in the quality of the Master's programmes. A problem resulting from this method is the question of who would be allowed to judge the suitability of the applicants and what criteria would be used for this selection.

2.10. *Quality improvements regarding exams*

The extent of exams and conflicting scheduling are problems which students are most often confronted with. The latter presents a simple logistical problem. Due to the huge extent of exams and time constraints, students are often only able to get a superficial overview of topics, which would require more research (also for only individual interests). This superficial approach hampers the gain of deepened knowledge as well as additional research into topics of individual interest. Several small exams or continuous knowledge tests during the semester (at least in some courses) might be a solution. The possibility of demonstrating (optional) performance in advance would be a big concession for the students. For particularly difficult tests or rather tests that require knowledge from other disciplines, preparatory tutorials would be of great help.

It should be noted that knowing where to find specific information is often more important than rote memorisation, which is often only retained by short term memory. In this context, technical innovations (*e.g.*, Internet access to e-journals or online collaboration) should be mentioned, which enable easy and quick access to current information. Even though Internet-based systems also have weaknesses, these can be offset by other advantages.

The possibility of writing exams in other languages, or at least in English, would be an advantage as foreign students could benefit from this possibility, and the linguistic competence of students whose mother tongue is other than English would be supported.

Recommendations

Complex themes that affect the whole world require an interdisciplinary approach based on the principle of responsibility (Schweitzer 1996). To enable junior scientific staff to deal with global problems by means of widespread knowledge, to find concurrent causes and risks and finally to add solutions requires new innovative concepts of education.

In the 21st century some universities worldwide take up this challenge and some of them have been discussed in this paper. Firstly, it is important to look into these concepts of education which are the results of the elaborated work of experts and secondly to compare them in order to learn from each other and to exchange new ideas. Hence, the first step in Section 1 of this article was to take a look at other successful education programmes to improve the local offer. Concrete suggestions were worked out in Section 2 of this article and are summarised in the conclusions.

The consequences and prognoses for the future concerning global development are being redefined every day, and consequently the educational establishment also has to extend and revise their orientation accordingly by expanding their educational offerings.

The comparison of different programmes concerning global development showed that intercultural mobility is often seen as an obvious desire and therefore it should be used for education, research and teaching. The demand for internationality can be seen in the form of recommended semesters abroad or excursions, and also in the demand for foreign language skills. There is a strong wish for cooperation and networking with partner universities to encourage student exchange programmes.

For students it is important to implement their knowledge in practice which is a necessary component of an integral education. In the area of teaching there are many possibilities and resources which are utilised by universities and which can be useful for many other education programmes.

There was also the wish for more variety of teaching methods mentioned by students such as panel discussions, the writing of scientific papers and guest lecturers. Lately, some of the endless possibilities of the Internet and web-based forms of teaching and learning have also been mentioned, like platforms for student communication and networking.

Conclusion

This paper presented 19 developmental curricula in Sections 1.1 to 1.19 and suggested the above-mentioned steps towards quality assurance in nine key areas from the point of view of students in Sections 2.2 to 2.10. As a general result, some co-authors have found that the comparability of Master's programmes in German and English languages differs: Anglo-Saxon GS Master's programmes might focus more on aspects of economy, management and energy (SOAS 2013); whilst German-speaking Master's programmes might be more diversified and multiparadigmatic (*e.g.*, environment, culture, history, *etc.*), as is the case at GS Graz. Consequently, predominantly curriculums from German-speaking areas were analysed to assure a profound, comparable basis.

The team of authors cooperatively suggests steps to quality assurance from the point of view of current and former students. Thereby positive insights as well as ideas for improvements arose, which have been developed by comparing national and international Master's programmes. In summary, several arguments should be mentioned:

- To foster intense cooperation between partner universities, not merely an exchange of students but also guest lectures could be established.
- Entering the Global Studies Consortium can be seen as a recommendable option to increase an interexchange of knowledge.
- Without a doubt, completing stays abroad is particularly important for internationally aligned study programmes.
- Joint Master's programmes can be suggested as a possibility for promoting internships and stays abroad. These programmes should offer financial support and information for participating students.
- Multidisciplinary and a multi-paradigmatic approach, which is especially vital in GS, can be achieved by increasing cooperation between faculties of the university.
- Further emphases like language skills could be implicated.
- In terms of didactics and lectures, the prevalent arguments addressed active participation and self-responsible working such as in 'Interdisciplinary Practicals' (IP).

An extension of a broad range of courses like multidisciplinary practices would enrich tuition as a whole.

- Furthermore, increased own performance during the semester should be required to foster continuous participation and at the same time unburden students in the examination periods.

Placements are part of many GS Master's programmes, but most students receive no payment for their work and consequently cannot spend time abroad. Ideally, it should be optional for the students to either go abroad or stay in their home country to assist their placement.

Many students consider the integration of language courses as very important. More lectures should be held in different languages. Additionally, language skills could be constituted as an admission requirement.

The admission procedure can also result in problems. Due to the multidisciplinary aspect of GS Studies, students from various fields of study apply for admission. An application procedure could help to evaluate borderline cases more precisely.

A substantial need is safeguarding a sound financial basis for GS as such which is dreadfully absent as of now. Until now, GS Graz has been founded and run at almost no additional cost.

May the above suggestions from a students' point of view serve to further improve academic quality of multicultural and developmental curricula worldwide.

References

- AAI – Afro-Asian Institute 2010.** Description of Global Studies Graz. URL: http://www.aai.graz.at/cms/index.php?page=global-studies&hl=de_DE.
- Ahamer, G. 2011.** How Technologies can Localize Learners in a Multicultural Space. *International Journal of Technology and Educational Marketing (IJTEM)* 1(2): 1–24. DOI: 10.4018/IJTEM.2011070101. URL: <http://www.igi-global.com/article/technologies-can-localize-learners-multicultural/58329>.
- Ahamer, G. 2012a.** The Jet Principle: Technologies Provide Border Conditions for Global Learning. *Multicultural Education & Technology Journal (METJ)* 6(3): 177–210. DOI: 10.1108/17504971211254010.
- Ahamer, G. 2012b.** Training to Bridge Multicultural Geographies of Perspectives. *Campus-Wide Information Systems (CWIS)* 29(1): 21–44. DOI: 10.1108/10650741211192037.
- Ahamer, G. 2013a.** Multiple Cultures of Doing Geography Facilitate Global Studies. *Multicultural Education & Technology Journal* 7(2/3). In print.
- Ahamer, G. 2013b.** Quality Assurance in Transnational Education Management – The Developmental ‘Global Studies’ Curriculum. In Mukerji, S., and Tripathi, P. (eds.), *Handbook of Research on Transnational Higher Education Management*. IGI Global Publishers. In print.
- Ahamer, G. 2013c.** Quality Assurance through Multiple Cultures in Global Studies. *Multicultural Education & Technology Journal* 7(2/3). In print.
- Ahamer, G., Kumpfmüller, K. A., and Hohenwarther, M. 2011.** Web-based Exchange of Views Enhances ‘Global Studies’. *Campus-Wide Information Systems* 28(1): 16–40.
- Ahamer, G., and Kumpfmüller, K. 2013.** Education and Literature for Development in Responsibility – Partnership Hedges Globalization. In Mukerji, S., and Tripathi, P. (eds.),

- Handbook of Research on Transnational Higher Education Management*. IGI Global Publishers. In print.
- Altmann, M., Eisenreich, S., Lehner, D., Moser, S., Neidl, T., Rüscher, V., and Vogeler, T. 2013.** Global Inequality and Poverty in Perspectives of Geography. *Multicultural Education & Technology Journal* 7(2/3). In print.
- Anselm, R. and Körtner U. H. J. 2003. (Eds.).** *Streitfall Biomedizin. Urteilsfindung in christlicher Verantwortung*. Göttingen: Vandenhoeck & Ruprecht.
- Bader, L., and Zotter, V. 2012.** Interdisciplinarity: Wishful Thinking? Experiences at the University of Graz. *Multicultural Education & Technology Journal* 6(3): 118–136.
- Bader, L., and Köttsdorfer, M. 2013.** E-learning from a Student's View with Focus on Global Studies. *Multicultural Education & Technology Journal* 7(2/3). In print.
- Bernhard, A. 2011.** Quality Assurance on the Road: Finland and Austria in Comparison. *European Educational Research Journal* 10(4): 583–594.
- Bernhard, A. 2012.** Quality Assurance in an International Higher Education Area: A Summary of a Case-Study Approach and Comparative Analysis. *Tertiary Education and Management* 18(2): 153–169.
- Bernhard, A. 2012.** Transparency and Comparability within a Multidimensional Context – Strategies for Improving the Quality of Academic Programmes. In Hofer, C., Schröttner, B., and Unger-Ullmann, D. (eds.), *Akademische Lehrkompetenzen im Diskurs [A Discourse on Academic Teaching Competencies]* (pp. 51–62). Münster: Waxmann.
- Duraković, E., Feigl, B., Fischer, B., Fleck, C., Galler, L.-M., Heinrich, J., Kulmer, K., Kurzweil, B., Scholze, M., Sperl, R., Unterköfler, R., Matzenberger, J., Remele, K., and Ahamer, G. 2012.** Dialogic Global Studies for Multicultural Technology Assessment. *Multicultural Education and Technologies Journal (METJ)* 6(4): 261–286. DOI: 10.1108/17504971211279527.
- EHEA 2010.** The Bologna Process: Setting up the European Higher Education Area. URL: http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11088_en.htm.
- European Union Studies 2010.** Curriculum European Union Studies. URL: http://www.unisalzburg.at/portal/page?_pageid=2047,993516&_dad=portal&_schema=PORTAL.
- Global History Vienna 2009.** *Brief Information*. URL: http://www.univie.ac.at/Geschichte-Meta/Globalgeschichte/?page_id=140&lang=en.
- Global History Vienna 2012.** *Curriculum Globalgeschichte und Global Studies*. URL: http://senat.univie.ac.at/fileadmin/user_upload/senat/Konsolidierte_Curricula/Master/MA_GlobalgeschichteundGlobalstudies.pdf.
- Global Studies Consortium 2013.** Mission Statement. URL: <http://globalstudiesconsortium.org/info/mission-statement>.
- Global Studies Freiburg 2011.** Module Handbook for the Master of Arts in Social Sciences. Global Studies Programme. URL: <http://www.gsp.uni-freiburg.de/programme/master/1course-handbook-gsp.pdf>.
- Global Studies Freiburg 2012.** Information. URL: <http://www.global-studies.de> or also at <http://ranking.zeit.de/che2012/en/studiengang/14081>.

- Global Studies Freiburg 2013.** Curriculum Global Studies. URL: <http://www.gsp.uni-freiburg.de/programme/master> <http://www.gsp.uni-freiburg.de/programme/master>.
- Global Studies Gothenburg 2012.** Curriculum. URL: http://www.globalstudies.gu.se/digitalAssets/810/810964_Master_Global_studies.pdf and http://www.globalstudies.gu.se/english/education_student/second-cycle--master-level/masterglobalstudies/modules/.
- Global Studies Gothenburg 2013.** Information about the GS School. URL: <http://www.globalstudies.gu.se/>.
- Global Studies Graz 2010.** Information on Global Studies Graz. URL: <http://www.uni-graz.at/vrelwww/vrelwww-ma.htm> or at http://www.uni-graz.at/folder_global_studies_web.pdf.
- Global Studies Graz 2011.** Curriculum Global Studies. URL: https://online.uni-graz.at/kfu_online/wbMitteilungsblaetter.display?pNr=272255.
- Global Studies Graz 2012.** Admission to Global Studies. URL: [http://www.uni-graz.at/en/vrelwww/vrelwww-ma/vrelwww-zulassung.htm?="](http://www.uni-graz.at/en/vrelwww/vrelwww-ma/vrelwww-zulassung.htm?=).
- Global Studies Leipzig 2012.** Study Program. URL: <http://www.uni-leipzig.de/~gesi/masters/globalstudies/program/>.
- Global Studies Leipzig 2013.** Global Studies. Master of Arts Program. URL: http://www.zv.uni-leipzig.de/studium/angebot/studienangebot/studiendetail.html?ifab_id=290 or at <http://www.uni-leipzig.de/~gesi/masters/globalstudies/>.
- Global Studies Lund 2012.** Curriculum. URL: http://www.sam.lu.se/upload/LUPDF/Samhallsvetenskap/Masterutbildning_dokument/SAGLS.pdf.
- Global Studies Lund 2013.** Master of Science Programme (120 credits) in Global Studies. URL: http://www.lunduniversity.lu.se/o.o.i.s?id=24725&lukas_id=SAGLS&overview=programme or URL: <http://www.sam.lu.se/education/welcome-to-iss/graduate-school/master-of-science-in-global-studies>.
- Global Studies Roskilde 2012.** Detailed course list. URL: <http://kursus.ruc.dk/view/global>.
- Global Studies Roskilde 2013.** Information. URL: <http://www.ruc.dk/en/education/subjects/global-studies/>.
- Global Studies Salzburg 2012.** Curriculum Global Studies. URL: https://online.uni-salzburg.at/plus_online/wbMitteilungsblaetter.display?pNr=157981.
- Global Studies Salzburg 2013.** Information and Available Courses. URL: www.uni-salzburg.at/globalstudies, at http://www.uni-salzburg.at/portal/page?_pageid=145,1514578&_dad=portal&_schema=PORTAL and at http://www.uni-salzburg.at/portal/page?_pageid=2047,993523&_dad=portal&_schema=PORTAL.
- Global Studies UCLA 2013.** About Global Studies. URL: <http://www.international.ucla.edu/idps/globalstudies/article.asp?parentid=20069>.
- Global Studies Vancouver 2012.** Internship. URL: <http://www.viu.ca/globalstudies/internshipreports.asp/>.
- Global Studies Vancouver 2013.** General Description. URL: <http://www.viu.ca/globalstudies/>.
- Globalisation and International Development Ottawa 2013.** Handbook and Curriculum. URL: <http://www.socialsciences.uottawa.ca/sites/default/files/public/dvm/eng/documents/dvm-grad-handbook-2012-2013.pdf>.

- Globalisation and International Development Ottawa 2013.** Information. URL: <http://www.grad.uottawa.ca/Default.aspx?tabid=1727&monControl=Programmes&ProgId=595>.
- Globalisation Canberra 2013.** General Description. URL: <http://studyat.anu.edu.au/programmes/7156XMGLB;overview.html>.
- GS 2011.** Expert opinion on the inclusion of the Master curriculum 'Global Studies' into the strategic agreement document with the Ministry of Science and Research (in German) URL: http://www.uni-graz.at/globalstudies/deposit/Stellungnahme-KFU-Entwicklungsplan-2013-18_GS.pdf.
- GS Courses 2013.** Detailed Course List for Global Studies Graz. URL: [http://www.uni-graz.at/en/vre1www/vre1www-ma/vre1www-ma-studienplan.htm?="](http://www.uni-graz.at/en/vre1www/vre1www-ma/vre1www-ma-studienplan.htm?=).
- GSP 2013.** Global Studies Programme, Berlin University. URL: <http://iaaw.hu-berlin.de/transformation/global-studies-programme>, <http://www.global-studies-programme.org/>.
- International Development Birmingham 2013.** Information. URL: <http://www.birmingham.ac.uk/students/courses/postgraduate/taught/govsoc/international-development.aspx#CourseDetailsTab> or at <http://www.idd.bham.ac.uk/degree/pg/modules/index.shtml>.
- International Development Studies Marburg 2011.** Curriculum. URL: <http://www.uni-marburg.de/studium/studgang/interfac/ids/study/studycondnew.pdf>.
- International Development Studies Marburg 2012.** Admission. URL: <http://www.uni-marburg.de/studium/studienangebot/master/m-ids/efv-idsma>.
- International Development Studies Marburg 2013.** Information. URL: http://www.uni-marburg.de/studium/studgang/interfac/ids/study/index_html?set_language=en or <http://www.uni-marburg.de/studium/studienangebot/master/m-ids>.
- International Development Vienna 2012.** Curriculum International Development and general information. URL: <http://ie.univie.ac.at/>, and also at: http://ie.univie.ac.at/fileadmin/user_upload/proj_int_entwicklung/Studienplaene/Mastercurriculum_IE.doc, and in short at [http://studentpoint.univie.ac.at/vor-dem-studium/detailansicht/studium/066/?tx_univiestudentpoint_pi1\[alpha\]=f-i&tx_univiestudentpoint_pi1\[backpid\]=96348&cHash=8f5024e7e3a16195b78f20e9deda9455](http://studentpoint.univie.ac.at/vor-dem-studium/detailansicht/studium/066/?tx_univiestudentpoint_pi1[alpha]=f-i&tx_univiestudentpoint_pi1[backpid]=96348&cHash=8f5024e7e3a16195b78f20e9deda9455).
- Kapper, C. 2013.** Einsatzmöglichkeiten und Grenzen von elektronischen Prüfungen. In Dorfer, A., and Pany, D. (eds.), *Hochschullehre XXL – Großlehrveranstaltungen im Fokus*. Graz: Leykam.
- Kumpfmüller, K. A. 2007.** *Which Targets for Global Studies?* Fundamental deliberations for the inauguration of the Master study's curricula commission at Graz University, Institute for International Law, Memo to the Senate of Karl-Franzens University Graz. URL: <http://www-classic.uni-graz.at/vre1www/deposit/Welche-Ziele-verfolgt-Global-Studies.pdf>.
- Kumpfmüller, K. A. 2009.** *Draft Curriculum Global Studies*. Memo for the Curricula Commission, commanded by the vice-rector for studies. Graz: Graz University.
- Kumpfmüller, K. A. 2012a.** *Introduction to Global Studies*. Course number 324.539 at Karl-Franzens-Universität Graz. Documentation at URL: https://online.uni-graz.at/kfu_online/lv.detail?cperson_nr=54788&clvnr=304894.
- Kumpfmüller, K. A. 2012b.** Friedensforschung muss immer überparteilich sein. *Wiener Zeitung* Interview 30.3.2012. URL http://www.wienerzeitung.at/themen_channel/wz_reflexionen/zeitgenossen/447087_Karl-Kumpfmueeller.html.
- MK 2013.** *Mattersburg Circle for Developmental Policy at Austrian Universities*. National umbrella organisation for developmental and global studies. URL: <http://www.mattersburgerkreis.at/>.

- Müller, U., Ahamer, G., Peters, H., Weinke, E., Sapper, N., and Salcher, E. 2013.** Technologies and Collaborative Education Strengthen Conviviality in Rural communities in the Alps and in Senegal. *Multicultural Education and Technologies Journal* (METJ) 7(2/3). In print.
- Munk School of Global Affairs 2013.** Master of Global Affairs. URL: <http://munkschool.utoronto.ca/mga/> or <http://www.globalaffairs.utoronto.ca/courses.html>.
- Northeastern University Boston 2011.** Admission and Language Proficiency. URL: <http://www.cps.neu.edu/admissions/international/english-language-proficiency.php>.
- Northeastern University Boston 2012.** Curriculum. URL: <http://www.cps.neu.edu/degree-programs/graduate/masters-degrees/masters-global-studies-international-affairs.php>.
- Northeastern University Boston 2013.** Information about the Master of Science in Global Studies and International Affairs program. URL: <http://www.cps.neu.edu/degree-programs/graduate/masters-degrees/masters-global-studies-international-affairs.php> or at <http://www.onlinecollegeguru.com/online-colleges/northeastern-university/master-of-science-in-global-studies-and-international-affairs/>.
- Nuscheler, F. 2012.** *Lern- und Arbeitsbuch Entwicklungspolitik*. Bonn: Dietz.
- Nuscheler, F., and Wittmann, V. 2013.** *Short Description of GS Linz* [in German]. URL: <http://www.jku.at/ifz/content/e151693/> or directly at http://www.jku.at/ifz/content/e151693/e183619/GlobalStudiesKurzbeschreibungfrhomepage_ger.doc.
- Pajank, D. 2008.** *Suggestions for the Master's Curriculum GS* [Vorschläge zur inhaltlichen Ausrichtung und strukturellen Gliederung des Masterstudiums 'Global Studies']. Memo to the Curricula Commission GS, Bologna, 12. Oktober 2008.
- Pany, D. 2013.** Hochschullehre und akademische Schreibkultur – Entwicklungen und Perspektiven. In Hofer, C., Schröttner, B., and Unger-Ullmann, D. (eds.), *Akademische Lehrkompetenzen im Diskurs* [A Discourse on Academic Teaching Competencies] (pp. 38–50). Münster: Waxmann.
- Schweitzer, A. 1996.** *Kultur und Ethik*. München: C. H. Beck.
- SOAS 2013.** CISD Programmes. URL: <http://www.soas.ac.uk/cisd/programmes/>.
- Studierendenportal Freiburg 2011.** Social Sciences. URL: http://www.studium.uni-freiburg.de/studium/studienfaecher/fachinfo/index.html?id_stud=147.
- UCSB 2013.** Global and International Studies Information. URL: <http://www.global.ucsb.edu/magis/> or at <http://globalstudiesconsortium.org/programs/university-of-california-at-santa-barbara>.
- Uniko 2011.** Jahresbericht 2011 der Österreichischen Universitätenkonferenz. URL: http://www.uniko.ac.at/upload/Jahresbericht_uniko_2011.pdf.
- USW 2013.** *USW Reports*. List of linked final reports from the Interdisciplinary Practicals (IP) in the curriculum 'Environmental Systems Sciences' (USW) at Graz University. URL: http://www.uni-graz.at/en/usw1www/usw1www_magazin/usw1www_berichte.htm.
- Wilfrid Laurier University 2013.** What is Global Studies at Laurier. URL: http://www.wlu.ca/page.php?grp_id=148&p=1781.
- Wittmann, V. 2012.** Gender and Empowerment in South Africa. *Multicultural Education and Technologies Journal* (METJ) 6(4): 248–260.

University of Leipzig

1. Name of university: University of Leipzig.

2. Year of foundation: 1409.

3. Name of faculty where Global Studies are taught: The Global and European Studies Institute.

4. Curricula and year of beginning: No information.

5. Number of students: Currently exactly 100 students are enrolled in the program.

6. Levels of study (undergraduate, postgraduate, PhD): BA degree (or a recognized equivalent) in the field of the Social Sciences or Humanities.

7. Language of study: English, German.

8. Short description of curricula:

The course is divided into different modules. Within each module students are supposed to select 2–3 courses from approximately 5 courses offered. Altogether the program includes 10 modules at each study place.

9. Detailed description of curricula.

1st semester.

Students attend courses within three introduction modules:

- Introduction to Global History,
- Introduction to Socio-scientific Theories of Globalization Research,
- Introduction to Methods of Globalization Research.

2nd semester.

Students chose courses within two of the interdisciplinary, regionally orientated modules:

- Globalization in Africa, South of the Sahara,
- Globalization in America,
- Globalization in Asia,
- Globalization in Europe,
- Globalization in the Middle East.

Students also attend a research colloquium and a summer school.

3rd semester.

Students choose two of the interdisciplinary, regionally orientated modules:

- Globalization in Africa, South of the Sahara,
- Globalization in America,
- Globalization in Asia,
- Globalization in Europe,
- Globalization in the Middle East.

Students attend a research colloquium.

4th semester.

Students attend two further modules:

- Cultural Dimensions of Globalization,

– Economic and Political Dimensions of Globalization.
Students attend a research colloquium. and write their master thesis.

The degree Master of Arts certified by the master certificates of this program ('Master-Urkunde') entitles the holders to the legally protected professional title 'Master of Arts'. In addition to the master certificates the graduates receive a consortiums' certificate of successful completion of the master course, a transcript of records, an examination certificate and a diploma supplement. All the final documents of the master course are issued both in English and in German.

10. International agreements.

Bilateral agreements on the exchange of graduate students exist with Duke University, Macquarie University, University of California at Santa Barbara, Dalhousie University, Jawaharlal Nehru University, Fudan University, Stellenbosch University, University of Vienna, and University of Wroclaw.

In preparation are: University of Yaoundé I, Otego University, University of Hermosillo, and University of Addis Ababa.

11. Contacts (university, faculty, chairs).

Global and European Studies Institute
Emil-Fuchs-Strasse 104105, Leipzig, Germany.

Contact:

Ms. Konstanze Loeke

email: gesi(at)uni-leipzig.de

phone: + 49 341 97 30230

fax: + 49 341 96 05 261.

Royal Melbourne Institute of Technology (RMIT University)

- 1. Name of university:** Royal Melbourne Institute of Technology (RMIT University).
- 2. Year of foundation:** 1887.
- 3. Name of faculty where Global Studies are taught:** School of Global, Urban and Social Studies.

4. Curricula and year of beginning:

- Environment and Planning,
- Global Studies,
- Justice and Community Safety,
- Languages,
- Social Studies,
- Social Work, Community and Human Services,
- Translating and Interpreting,
- Youth Work.

5. Number of students: No information.

6. Levels of study (undergraduate, postgraduate, PhD):

- Undergraduate (BA),
- Postgraduate by coursework (MS),
- Postgraduate by research (MS, PhD).

7. Language of study: English.

8. Short description of curricula.

Global Studies brings together outstanding and distinctive programs that focus on the transnational forces and the localized effects of globalization.

Undergraduate, postgraduate coursework and research programs offered are:

Innovative in integrating studies of globalization across professional, community and theoretical dimensions.

Engaged in the processes, analysis and transformations of social development across the Asia-Pacific region; from consulting and evaluation, professional training, to policy development. Countries we focus on include Australia, Bangladesh, Botswana, China, East Timor, India, Indonesia, Malaysia, Malawi, Pakistan, Philippines, Papua New Guinea, Singapore, Solomon Islands, South Africa, South Korea, Thailand, Vietnam and Zimbabwe.

Respected with consistently high undergraduate demand, excellent professional reputation and employment outcomes at the postgraduate level, internationally distinguished research programs.

Globalistics and Globalization Studies 2013 387–389

9. Detailed description of curricula.

Bachelor of Arts (International Studies) includes a wide range of courses:

<i>Year One</i>
Fundamental part
Global Processes Global History and Security Sustainable Futures Global Political Economy Intercultural Communication
Selective part
International Development: Themes, Debates and Practice Rethinking Security, War and Violence Chinese French German Greek Italian Japanese Spanish
<i>Year Two</i>
Fundamental part
Global Mobility and Ethnic Relations Working and Managing in International Contexts Global Governance and International Law Foundations of Social Research
Selective part
International Diplomacy Global Politics of Arms Control Feeding the World: Contemporary Issues in the Global Production and Consumption of Food Contemporary Foreign Policy Contemporary Europe: Unity, Diversity, Ideology Culture and Business Practice in Asia Contemporary Africa Race, Ethnicity and Racism Global Language Chinese French German Greek Italian Japanese Spanish

<i>Year Three</i>
Fundamental part
International Research Project International Internship International Professional Practice
Selective part
International Diplomacy Global Politics of Arms Control Feeding the World: Contemporary Issues in the Global Production and Consumption of Food Contemporary Foreign Policy Contemporary Europe: Unity, Diversity, Ideology Culture and Business Practice in Asia Contemporary Africa Race, Ethnicity and Racism Global Language

10. International agreements: No information.

11. Contacts (university, faculty, chairs).

Phone: +61 3 9925 2328

Fax: +61 3 9925 8266

Mailing address:

RMIT School of Global, Urban and Social Studies

GPO Box 2476

Melbourne Victoria 3001

Australia

Physical address:

RMIT School of Global, Urban and Social Studies

Building 37, Level 2, City campus

411 Swanston Street, Melbourne

Open 9.00am – 5.00pm, Monday to Friday

Lomonosov Moscow State University: Faculty of Global Studies

1. Name of university: Lomonosov Moscow State University.

2. Year of foundation: 1755.

3. Name of faculty where Global Studies are taught: Faculty of Global Studies.

4. Year of beginning: 2005.

5. Number of students: 550 students are enrolled in the program.

6. About:

The faculty specializes in preparing highly qualified specialists in the field of international relations and various aspects of Global Studies – an interdisciplinary scientific knowledge on globalization and global issues that integrate approaches and methods of humanities and natural sciences.

The educational program is implemented in accordance with the educational standard of Lomonosov Moscow State University in ‘International Relations’.

The university was the first one in Russia to bring to life the idea of educating a new generation of specialists, who would not only have a deep understanding of international relations and Global Studies, various global socio-natural processes and systems, but also speak several foreign languages and apply methods of mathematical modeling to global processes.

Keeping in mind the importance of a clear understanding of the world structure, system, dynamics and ever-increasing interdependence of its different parts, the Faculty of Global Studies focuses on studying the key processes in the fields of politics, economics, philosophy, sociology, geography, environmental science and other spheres that contribute to the formation of the global dynamics.

7. Levels of study (undergraduate, postgraduate, PhD):

Specialists in the field of International relations (educational program ‘Global and interregional processes’) – 5 years.

Since 2010 – PhD in Political Sciences (Political problems of international relations, global and regional development) – 3 years.

Since 2011 – Bachelor degree in International relations (‘Global studies’) – 4 years.

Since 2011 – Master degree in International relations (‘Global studies’) – 2 years, 130 credits.

8. Languages of study: English, German, French, Spanish, Italian, Arabic, and Chinese.

9. Departments and Chairs:

Faculty of Global Studies has two departments (‘Global Economics and Management’ and ‘Geopolitics and Diplomacy’) and four chairs (Chair of Globalistics, Chair of Geopolitics, UNESCO Chair on Global Problems and Emerging Social and Ethical Challenges for Large Cities and their Population, Chair of Global Social Processes).

10. Specializations:

The Faculty of Global Studies offers students a choice of two specializations, each program being associated with one of the departments of the Faculty.

Department 'Geopolitics and Diplomacy' (Specialization 'International Security').

The program is aimed at educating graduates in the field of general international relations and world politics issues, as well as giving them necessary skills and knowledge for dealing with global political processes and practical aspects of international security.

Department 'Global Economy and Management' (Specialization 'International Economic Integration and International Organizations').

The program integrates global theoretical outlook on international issues and professional insight into processes of global economics and economical politics in different countries and world regions. Graduates have solid mathematical background and are able to create and apply multifactor models for the analysis and interpretation of complex economic issues of the globalizing world.

11. International activities:

International academic cooperation of Moscow State University is based upon inter-university agreements and memoranda, as well as upon special protocols and working programs. Of about 450 total agreements, one third is of central university level, and the others – of the faculty and institute level.

Faculty of Global Studies has established a number of international academic cooperation agreements to enhance the mobility of students and lecturers. Currently, our faculty is proud to have strong contacts with research-and-education centers of such countries as Australia, Belarus, China, Germany, Egypt, India, Iran, Italy, Japan, the USA, Switzerland, and Ukraine, *etc.* We have signed inter-faculty agreements with the departments of relevant majors in J. W. Goethe University (Frankfurt-am-Main, Germany), Hong Kong University, La Sapienza University (Rome, Italy), Southwestern University of Finance and Economics (Chengdu, China), Tsing Hua University (Beijing, China), *etc.*

To improve language skills and to provide students with an experience in international communication, our faculty regularly organizes various international student conferences and academic exchange programs with universities in China, Italy, Germany, Holland, Switzerland, the USA, *etc.*

Annually, our faculty hosts large-scale international scientific and research-and-practice forums and conferences. In 2009 and 2011, the Faculty organized the 1st and the 2nd International Scientific Congresses 'Globalistics'. They both have allowed more than 500 scholars from 35 countries to discuss the most significant aspects of Global Studies. In June 2012, our faculty was honored to host and co-organize the 5th Annual International Global Studies Conference 'Eurasia and Globalization. Complexity and Global Studies' that was attended by more than 300 participants from 60 countries.

The 3rd International Scientific Congress will be held in October 2013 and will be dedicated to the 150th anniversary of the great Russian scientist Vladimir Vernadsky.

Our Faculty has initiated the International Association of Researchers in Global Studies – a scientific association open to scientists from all over the world who are interested in global studies (www.globalistics.org).

Our Faculty is the member of the Global Studies Consortium, a group of graduate programs in Global Studies seeking to collaborate in teaching and research. The sixth meeting of the Consortium will be held in June 2013 in Moscow.

12. Publications:

In English: the academic periodical *Journal of Globalization Studies*, the international encyclopedia *Globalistics*, and *The Global Studies Dictionary*.

In Russian: *Introduction to Globalistics, Global Geopolitics, City in the Context of Global Processes*.

The project '*Who is Who and What is What in Globalistics*', set up by the Faculty of Global Studies, is aimed at creating the most comprehensive database on scientists and scholars; organizations, institutions, centers and universities; periodicals; conferences, congresses, forums worldwide, all focused on global issues.

13. Contacts (university, faculty, chairs):

Scientific advisor: Igor I. Abylgaziev, professor, Doctor of History.

Dean: Ilya V. Ilyin, professor, Doctor of Political Science.

Faculty of Global Studies

Address: 1-51, Leninskiye Gory, 1st Humanitarian building, 119991, Moscow, Russia,

Dean's Office tel.: +7 (495)9394323,

Fax: +7(495)9394501

E-mail: info@fgp.msu.ru

Web-site: www.fgp.msu.ru

International department: Alexandra Glek

Tel.: +7(968)8948687

E-mail: alexandra.glek.fgp@gmail.com / alexandra.glek@fgp.msu.ru

Shanghai University: The Postgraduate Program of Global Studies

About

The postgraduate Program of Global Studies at Shanghai University is the first two programs in this discipline in China, though, according to the *Regulations Concerning Academic Degrees in the People's Republic of China*, the specific master or doctorate degree in Global Studies has not yet been officially established. The program (both MA and PhD) aims for an integrated, multi-disciplinary and cross-cultural learning and research on the processes and effects of globalization. By analyzing global phenomena from economic, social, historical, cultural, political, and other perspectives, the program fosters a global awareness that is essential for bridging cultural, geographic, political and linguistic boundaries.

Research Fields

1. Theories of Globalization and Global Studies.
2. Globalization and Cultural Diversity.
3. Globalization and Regional Development.

Degree Awarded and Requirements

The Postgraduate Program of Global Studies at Shanghai University is a cross-disciplinary one involving History, Sociology and Economics. Students can get a Degree (MA or PhD) of History, or Sociology, or Economics.

Masters – Total 44 Credits:

- five compulsory courses – 20 credits;
- six optional courses – 24 credits;
- paper requirement – students must have at least one academic paper published during the period of study.

• NOTE: To get a specific degree, students must take two relevant optional courses and complete a thesis in a specific discipline. For instance, to get a degree of History, students must take two relevant history courses and complete a history thesis.

PhD – Total 14 Credits:

- two compulsory courses – 6 credits;
- two optional courses – 8 credits;
- paper requirement – students must have at least two academic papers published during the period of study.

• NOTE: To get a specific degree, students must take one relevant optional course and complete a dissertation in a specific discipline.

Time Limits

The required minimum time for MA students is two and half years, and a the maximum time is five years. The minimum time for Ph.D students is three years and the maximum time is six years.

Course Structure

The Postgraduate Program of Global Studies at Shanghai University is a cross-disciplinary one involving History, Sociology, Philosophy and Economics. PPGS offers courses of various disciplines, this interdisciplinary nature allows students to take courses focusing on a variety of different topics and specializations in the context of globalization.

1. Compulsory Courses – Master:

- Theory of Marxism and Socialism with Chinese Characteristics (3 credits);
- Theories of Global Studies (4 credits);
- Methodology of Global Studies (4 credits);
- Globalization and Global Issues (4 credits);
- Foreign Language (5 credits).

2. Compulsory Courses – PhD:

- Theory of Marxism and Socialism with Chinese Characteristics (2 credits);
- Foreign Language (4 credits).

3. Optional Courses:

- Globalization and Cultural Identification (4 credits);
- Religion and Global Politics (4 credits);
- Public Diplomacy and Global Governance (4 credits);
- International Politics (4 credits);
- The Contemporary International Relations (4 credits);
- International Political Economy (4 credits);
- International Business (4 credits);
- Development of Economics (4 credits);
- Global History (4 credits);
- Evolution of the Global System (4 credits);
- Elements of International Law (4 credits);
- Culture Anthropology (4 credits);
- Social Organization and Social Governance;
- Global Sociology (4 credits).

Exchange Programs

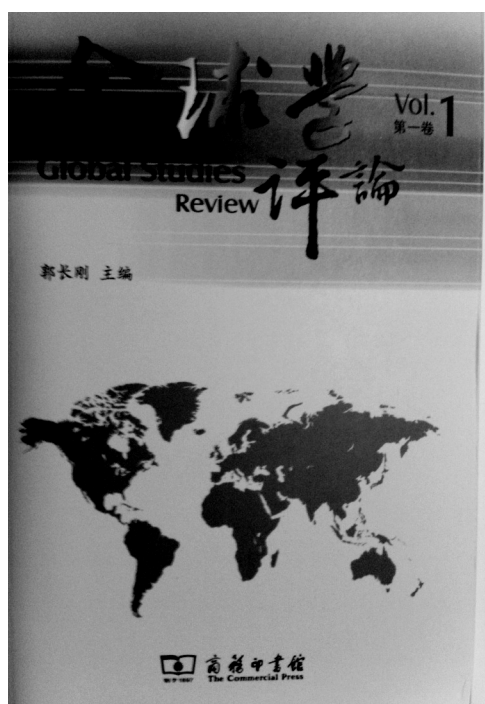
Students are encouraged to go abroad for academic exchange experiences. We also host international students. In recent years, PPGS at Shanghai University has established some specific exchange programs with the following overseas universities and institutions:

- The University of Adelaide, Australia;
- The University of Tennessee, USA;
- Galilee International Management Institute, Israel;

- Koç University, Turkey;
- Boğaziçi University, Turkey;
- CLAEH University, Uruguay.

Publications

The Center for Global Studies at Shanghai University edits a book series *Global Studies Review*. We are grateful to the Advisory Board members of this book series. They are Mark Jurgensmeyer, Roland Robertson, Manfred Steger, Jan Nederveen Pieterse, Sebastian Plocinnek, Dai Nomiya, Hagen Schulz-Forberg, and Ilya V. Ilyin. We will try our best to make this book series the leading academic work in the field of Global Studies in China. Papers from international colleagues are most welcome!



Contributors to the Volume

Igor I. ABYLGAZIEV is Doctor of Science, scientific director of the Faculty of Global Studies, Moscow State University.

Ivan A. ALESHKOVSKI is Associate Professor and Deputy Dean of the Faculty of Global Studies, Lomonosov Moscow State University. His sphere of scientific interests is population economics and demography, in particular migration and development, the role of demographic indicators in economic development. He is author of over 150 scholarly publications, including such manuals and monographs as *Economics of Population* (2007, in Russian), *Urban Economics* (2006, in Russian), *Introduction to Demography* (2002, 2003, in Russian), *Internal Migration of Population in Contemporary Russia* (2007, in Russian), *Determinants of Internal Migration of Population* (2006, in Russian).

Ken BAUSCH is a member of the Global Agoras team. Besides having rich experience in community third sector areas as well as experience as a university professor and priest, he briefly served as the executive director of the Ashley Montague Institute. Dr Bausch co-authored several books with Dr Flanagan including *A Democratic Approach to Sustainable Futures* (2011) and *Body Wisdom in Dialogue* (2012). With Professor Alexander Christakis, Dr Bausch co-authored *Co-Laboratories of Democracy: How People Harness Their Collective Wisdom to Create the Future* (2006). Bausch's published books also include *The Emerging Consensus in Social Systems Theory* (2001) and *Body Wisdom: Interplay of Body and Ego* (2010).

Christopher CHASE-DUNN is Distinguished Professor of Sociology and Director of the Institute for Research on World-Systems at the University of California, Riverside. His recent books are *The Spiral of Capitalism and Socialism: Toward Global Democracy* (with Terry Boswell) and *Global Social Change* (with Salvatore Babones). In 2001 he was elected to the rank of Fellow of the American Association for the Advancement of Science.

Alexander N. CHUMAKOV, Doctor of Science (Philosophy), Professor, Head of Philosophy Department at Financial Academy under the Government of Russian, First Vice-President of the Russian Philosophical Society. His professional interests lie in Global Studies, social philosophy, global problems and ecology. Among his numerous scholarly publications are the following monographs: *The Philosophy of Global Problems* (1994, in Russian; 1996 – in Chinese); *Globalization. The Outlines of Integral World* (2005, 2nd edition – in 2009; in Russian); *The Essence of Contemporary Globalization* (2007, in Russian); *Philosophy of Globalization. Selected articles* (2010).

Jean-Marc COICAUD is Professor of Law and Global Affairs and Director of the Division of Global Affairs at Rutgers University, and Global Ethics Fellow with the Carnegie Council for Ethics in International Affairs.

Galina A. DROBOT is Professor of the Faculty of the Global Studies at Lomonosov Moscow State University (MSU). She is the author of more than 100 scholarly and methodical publications including such textbooks as *World Politics as a Phenomenon of the Global World* (2010, in Russian), *The International Relations: Theories, Conflicts, Movements,*

Globalistics and Globalization Studies 2013 396–400

the Organizations (2007, 2011, in Russian). Now she is the Scientific secretary of global processes department of MSU.

Ruslan R. GABDULLIN is Deputy Dean of the Faculty of Global Studies, Associate Professor, Lomonosov Moscow State University.

Anton L. GRININ is Candidate of Biological Sciences, Leading Research Fellow of Volgograd Centre for Social Research.

Leonid E. GRININ is Research Professor and the Director of the Volgograd Center for Social Research, as well as the Deputy Director of the Eurasian Center for Big History & System Forecasting and Senior Research Professor at the Institute for Oriental Studies of the Russian Academy of Sciences in Moscow. He is the Editor-in-Chief of the journal *Age of Globalization* (in Russian), as well as a co-editor of the international journals *Social Evolution & History* and the *Journal of Globalization Studies*. His current research interests include macrohistory and long-term trends, sociocultural evolution, theory of history, world-systems studies, long-term development of political systems, globalization studies, economic cycles, and Big History studies. Dr. Grinin is the author of more than 330 scholarly publications in Russian and English, including 25 monographs. These monographs include *Philosophy, Sociology, and the Theory of History* (2007, in Russian); *Productive Forces and Historical Process* (2006, in Russian); *State and Historical Process* (3 vols, 2009–2010, in Russian); *Social Macroevolution: World System Transformations* (2009, in Russian; with A. Korotayev); *Macroevolution in Biological and Social Systems* (2008, in Russian; with A. Markov and A. Korotayev); *Global Crisis in Retrospective: A Brief History of Upswings and Crises* (2010, in Russian; with A. Korotayev); *The Evolution of Statehood: From Early State to Global Society* (2011); *The Cycles of Development of Modern World System* (2011, in Russian; with A. Korotayev and S. Tsirel); *From Confucius to Comte: The Formation of the Theory, Methodology and Philosophy of History* (2012, in Russian); *Macrohistory and Globalization* (2012); *Cycles, Crises, and Traps of the Modern World-System (Kondratiev's, Juglar's and Secular Cycles, Global Crises, and the Malthusian and Post-Malthusian Traps)* (2012, in Russian; with A. Korotayev).

Tony HARPER, Teacher at New Trier High School District

Ilya V. ILYIN is the Dean of the Faculty of Global Studies, the Head of the Department of Globalistics, Lomonosov Moscow State University. He is the author of over 200 scholarly publications on globalistics, including such books as *Introduction into Global Ecology* (2009, in Russian; in co-authorship with A. Ivanov), *Evolutionary Globalistics* (2010, in Russian; co-authored with A. Ursul), *Introduction in Paleoglobalistics* (2011, in Russian; co-authored with R. Gabdullin and A. Ivanov).

Alexei V. IVANOV is the Dean of the Faculty of Ecology and Service at Gagarin Saratov State Technical University, the Head of the Scientific Center of the Faculty of Global Studies Lomonosov Moscow State University. He is the author of over 400 scholarly publications on paleoecology, historical geoecology, global ecology and globalistics questions, including such books as *Introduction into Global Ecology* (2009, in Russian; co-authored with Ilya Ilyin), *Modeling of Global Processes* (2010, in Russian; co-authored with I. Abylgaziev, I. Ilyin, D. Trubetskov and others), *Fundamentals of General Ecology* (2010, in Russian; co-authored with M. Goldfein, N. Kozhevnikov), *Introduction in Paleoglobalistics* (2011, in Russian; co-authored with R. Gabdullin, I. Ilyin).

Andrey V. KOROTAYEV is Professor and the Head of the Department of Modern Asian and African Studies, Russian State University for the Humanities, Moscow, as well as Senior

Research Professor of the Oriental Institute and Institute for African Studies, Russian Academy of Sciences. He is the author of over 300 scholarly publications, including such monographs as *Ancient Yemen* (1995), *World Religions and Social Evolution of the Old World Oikumene Civilizations: A Cross-Cultural Perspective* (2004), *Introduction to Social Macrodynamics: Compact Macromodels of the World System Growth* (2006), and *Introduction to Social Macrodynamics: Secular Cycles and Millennial Trends* (2006). At present, together with Askar Akaev and Georgy Malinetsky, he coordinates the Russian Academy of Sciences Presidium Project 'Complex System Analysis and Mathematical Modeling of Global Dynamics'. He is a laureate of the Russian Science Support Foundation in 'The Best Economists of the Russian Academy of Sciences' Nomination (2006).

Aigul KULNAZAROVA is a Professor of International Relations and International Law in the School of Global Studies at Tama University (Japan), has taught courses in the fields of international law, political science, government, and international history since 1995. In 2001, she got her PhD. Degree in International Relations, and her current research is concerned about international relations in Asia, human rights and human rights education, race and politics of Asia and the UN. She has previously published articles, essays and book chapters on the topics of human rights, decolonization, sovereignty both in Russian and English. Dr. Kulnazarova is a co-founder of the Rui-bin Volunteer Camp that aims for the promotion of human rights education and mutual understanding through multiculturalism, language and technology approaches among disadvantaged children, mainly, from the Amis indigenous community of remote areas in Taiwan. She has also offered a similar program to the children of Adivasi aboriginal community in the Eastern part of India.

At the School of Global Studies at Tama University, professor Kulnazarova teaches 'Personality and Human Rights', 'International Relations', 'International Law and Institutions', 'Democracy', 'Sovereignty', 'Global Changes and Local Places', and 'Global History' since April 2007.

Ervin LASZLO is the Founder and President of The Club of Budapest, Chancellor of the Giordano Bruno GlobalShift University, Founder of the General Evolution Research Group, Fellow of the World Academy of Arts and Sciences, Member of the Hungarian Academy of Science and the International Academy of Philosophy of Science, Senator of the International Medici Academy, and the Editor of the international periodical *World Futures: The Journal of General Evolution*. He has a PhD from the Sorbonne and is the recipient of honorary PhD's from the United States, Canada, Finland, and Hungary. Laszlo received the Peace Prize of Japan, the Goi Award, in 2002, the International Mandir of Peace Prize in Assisi in 2005, the Conacreis Holistic Culture Prize in 2009, and was nominated for the Nobel Peace Prize in 2004 and 2005. He is the author or co-author of fifty-four books translated into as many as twenty-three languages, and serves as editor of another thirty volumes in addition to a four-volume *World Encyclopedia of Peace*.

Olga G. LEONOVA is Doctor of Political Science, Professor of Chair of Sociology and Political Science of Institute for Refresher and Advanced Professional Training, Moscow State University, Professor of the Faculty of Global Studies.

Kelly MACKENZIE is a graduate student at Flinders University, Participants in the pilot action learning project under the process leadership of Ken Bausch at the Institute for 21st Century Agoras

Tony MADE is a graduate student at Flinders University, Participants in the pilot action learning project under the process leadership of Ken Bausch at the Institute for 21st Century Agoras.

Janet MCINTYRE-MILLS is Associate Professor at Flinders University and Adjunct Professor at the University of Indonesia. Her praxis as a sociologist / social anthropologist spans over 30 years as an academic, teacher, researcher and community development specialist. McIntyre is on the editorial boards of the following journals: Systemic Practice and Action Research, Systems Research and Behavioural Science, Action Learning and Action Research Journal, Community Quarterly Assoc Prof McIntyre is organizing a joint stream across three research committees at the International Sociological Conference (ISA) held at Guthenberg Sweden and entitled 'Sociology on the Move'. 11–17 July, 2010. She was elected to the ISA board of Research Committee 10 on Participation at the ISA conference in Durban in 2006. Her recent books include: 'Systemic Governance and Accountability' and 'User-centric design to meet complex needs'.

Charles MORSE is a member of the Global Agora Team who led the action learning project under the process leadership of Ken Bausch at the Institute for 21st Century Agoras.

Alexander A. ROZANOV is Professor and the Head of Research Department of the Faculty of Global Studies, Lomonosov Moscow State University. He is the author of 5 publications, including 'The Politisation of Islam in the Context of Globalization. The Political Islam' (2008, in Russian), 'Risk-Management in a Changing Economy. Integrated System of Financial Risk Management' (2009, in Russian), 'The Problem of Ethnic Separatism in Modern International Relations' (2009, in Russian), *La France et les problemes mondiales* (2010, 2012). He is a laureate of the Prize for talented young people established by Russian Federation Presidential Decree.

Alexander A. SAGOMONYAN is a historian, political scientist, Professor of the Institute of International Relations and Social-Political Studies, Moscow State Linguistics University.

Tatiana SHESTOVA is a Russian historian and philosopher. She is an Associated Professor of the Faculty of Global Studies, Lomonosov Moscow State University. She is an author of over than 50 scholarly publications in philosophy of history, history and methodology of Global Studies and Global History. She is an author of such monographs as *The Heritage of Russian Zapadnichestvo (Westernity) by the 1840s in the Social Thought of the late 19th – early 20th Century* (1994); *The Philosophical Foundations of Historical Concepts in Ancient Greece* (2008); *History and Methodology of Global Studies* (2009, In Russian); *Global Historicism and its Role in Social Theory Development* (2012, in Russian).

Arkady D. URSUL is PhD, Professor, Academician of the Moldavian Academy of Sciences, the Head of the Department of Ecology and Environmental Management Branch of the Russian Academy of State Service under the President of the Russian Federation, the President of the International Academy of Noosphere (Sustainable Development) – IANSO, Founder and Honorary President of the Russian Academy of Astronautics, n.a. K. E. Tsiolkovsky, Honoured Scientist of the Russian Federation, laureate of the State Prize in Science and Technology, laureate of the National Environmental Prize, Laureate of the Vernadsky medal 'For contribution to sustainable development', full-fledged and honorary member of many Russian and international academies. Arkady D. Ursul is the author and coauthor of more than 1,100 scientific publications and several hundred scientific and popular publications, including more than 160 monographs, books and brochures, executive editor

of more than 250 scientific collective works, many of them have been translated into dozens of languages. He is the Director of the Center for Global Processes and Sustainable Development of the Russian State Trade and Economic University, Prof. of the Faculty of Global Studies of the Moscow State University and the Chair of the Department of Global Studies and Geopolitics of the Siberian Federal University.

Patrick A. TARAN is Senior Migration Specialist at the International Labour Office (ILO) in Geneva. Current responsibilities include supervision of technical cooperation on migration for CIS countries. He has 33 years full time professional experience in the field of international migration, refugee resettlement, and integration. Previous posts included Secretary for Migration of the World Council of Churches, Director of Migrants Rights International, and Program Officer for the UN inter-agency International Migration Policy Program.

Arno TAUSCH is Adjunct Professor (Universitaetsdozent) of Political Science at Innsbruck University. In his academic career, he was also Associate Visiting Professor, Department of Political Science, University of Hawaii at Manoa, and Guest Researcher, International Institute for Comparative Social Research, Science Center, West Berlin, upon invitation by the late Karl Wolfgang Deutsch, Stanfield Professor of International Peace at Harvard University. He served as an Austrian diplomat abroad and was Counselor for Labor and Migration at the Austrian Embassy in Warsaw. His research program is focused on world systems studies, development and dependency studies, European studies, and quantitative peace research. In addition, he authored or co-authored 15 books in English for major social science publishers, such as Dutch University Press, Palgrave Macmillan, Nova Science Publishers, Rozenberg, and Saint Martin's Press, N.Y. In all, Tausch's works were published or republished in 26 countries around the globe.

Gayle UNDERWOOD is a member of the Global Agora Team who led the action learning project under the process leadership of Ken Bausch at the Institute for 21st Century Agoras.