

Modern /Post-Modern Paradigm and the Current Reflections on Residential Building Exteriors in Cyprus

Sevinc Kurt

Abstract—The main aim of this paper was to investigate the existing architecture in Cyprus, and thus identify and describe the overall architectural rationale of the built environment. In Cyprus, where individuals live in a society that reflects postmodern paradigms rather than modern ones, the existing built environment has many different reflections of the structure of its society.

Keywords—Architecture, Cyprus, Identity, modern, post-modern

I. INTRODUCTION

THIS research has focused on the effects of the recent development on the residential architecture of Cyprus and its pre-modern/modern/postmodern parameters. It has also presented the social and cultural aspects of the present-day architectural dynamics to create quality spaces for living and to transfer the daily experiences to these spaces properly. The discussions have been held in a framework that combines many related features of identity, such as cultural formations, ideologies, social structures, economy, characteristics of the environment, and so on. This study has also presented and discussed the theoretical and analytical approaches to the existing structures and the main characteristics of the built environment in Cyprus. Some residential building exteriors are presented and series of suggestions are offered for future developments.

II. THEORETICAL FRAMEWORK

A. *The analysis of the different components of built environment*

Architectural critics fundamentally have the potential to analyze the vigorous factors that affect the formation of identity of built environment. Architectural theory deals with the primary functional, aesthetical, cultural, and philosophical issues of definite structures, buildings, or urban collection in general. The analysis of the critics might involve a description of a space in the context of architectural heritage or a comparison of local and global understandings. These analytical discussions actually contribute a lot to the architectural environment within the cultural entities of a definite society. Contemporary architectural discourse theory has become more concerned with its position within the cultural formation of the society.

The social structure of any society may generally have traditional, modern, or post-modern properties. However, it is

rarely possible to find a mixture of configurations, such as nonmodern formations in modern structures. In the case of Cyprus, it can be easily said that built environment reflects very different social, economic, cultural, historical, religious, ideological, and philosophical values. This description is valid almost everywhere in all the towns of the island. Very different entities can be seen on the island, in a positive and/or negative manner, as the formation of the physical environment, especially, in the indecisive appearances where it is almost impossible to decide whether a building is a traditional or a modern one, an unplanned or a post-modern one, or something in between. In fact, this situation can be considered as the main characteristic of the island's architecture. Cyprus has not entirely completed the modernist era and can be considered as a country where individuals live in a society that reflects post-modern paradigms rather than modern ones. The existing built environment in the country has many different expositions of the structure of its society.

The discussions on the factors that affect the formation of the existing physical environment of Cyprus are developing on whether the reflected urban visions of the country's architecture are post-modern or not. The acceptance of these architectures as post-modern indicates that it might be possible to be post-modern without living in the modern period and without completing all the dialectical processes. However, actually this condition is against the historical perspective and should not only be considered as a local reality in the context of the architectural culture of the island, but also as an uncertain constitution of the built environment.

Nevertheless, this indecisive structure creates a contradictory situation in the society. As a negative consequence of this situation, individuals do not consider themselves as subjects; however, as a positive consequence, they possess the traditional and local characteristics. It is also evident that the island has not completely realized the process of urbanization and capitalist configuration in the modern sense. For this reason, Cyprus has never lost its local scale, and village originates even in the biggest cities. On the other hand, the central concerns of the island are directly interrelated with the identity problems, multicultural demographic structure, and the political partition of the island.

In accordance with the above-mentioned reasoning and interpretations, the predicament of residential building aesthetics of the island, which did not experience and live the process of industrial revolution and was not able to abandon the economic and social relations of feudal culture, but imported and used all the superficial and technical opportunities of capitalism, have a multifaceted and rich, but, at the same time, a very worrisome content.

S. Kurt is with the Cyprus International University, Nicosia, Cyprus (phone: 90-392- 6711111/ 2113; fax: 90- 392-6711143; e-mail: skurt@ciu.edu.tr)..

B. Meaning of identity and architecture in the context of cultural entities

Identity is an umbrella term used in social sciences for an individual's comprehension of himself/herself as a discrete separate entity. It is certain what "identity" refers to conceptually, but its content is not clear when you are asked to define or explain it in detail. Identity, either as a process of individual existence or the identification of common life, is actually the sum of various effective characteristics of culture. As long as an individual consciously feels himself/herself as a member of a specific group, he/she can understand his/her own persona. Briefly, identity means "not to be same as others."

Identity often seems to involve essentialist claims about belongingness, where, for example, identity is seen as fixed and unchanging. Sometimes, these claims are based on nature; for example, "race" and "kinship in some versions of ethnicity". However, often the claims are based on an essentialist version of history and the past, where history is constructed or represented as an unchanging truth [1]. "Identity" is a name given to the evasion sought from that uncertainty. Identity entered modern mind and practice dressed from the start as an individual task. It was up to the individual to find ways to evade uncertainty [2].

Topography, climate, natural environment, fauna, landscape properties, animal types, language, religion, habits, belief, surrounding environment, government structure, nation, production relations, and any other phenomenon that can be classified socially, culturally, physically, and economically, are the different layers of life and they are superimposed on individuals. Thus, identity comes into existence as a result of the interactions of these layers and as an abstract constitution derived from these interactions. In fact, these interactions generate various dimensions in traditions and lifestyles.

However, it is essential to uncover the kinds of influences created by the existing administrative, social, and cultural structures to establish an integration of individuals' existence in space and social activities in the context of identity. In short, in this circumference, the conscious answer of individuals to the question of "who am I?" constitutes the basic nature of their identity. This is the result of the feelings that we have about the place where we live in and belong to. As it can be deduced from Heidegger's statement, one must not understand a human being's "Dasein" existence (being-in-the-world) simply as a matter of spatial and temporal location with respect to other objects. Dasein's being-in-the-world is fundamentally different from the existence of objects, such as trees, stones, and bridges [3]. An individual who does not possess his/her own identity only exists temporarily in any place, and may feel placeless. Hence, there is a strong connection between identity and existence in a place within the specific period of time.

C. Being Cypriot: Identity problem

Mediterranean, as the origin of all religions, is historically the center of western civilization. Accordingly, with the

character of being the third largest island in the Mediterranean, having 10,000 years of historical background and standing as it does at the crossroads of Europe, Asia, and Africa, Cyprus has had a chaotic history. There were too many different cultures on the island throughout history. The Mycenaean brought their civilization to Cyprus, establishing the first Greek roots 3000 years ago. Many others passed through, including the Phoenicians, Assyrians, Egyptians, Persians, Romans, Crusaders, Venetians, Ottomans, and British. In Cyprus, the past lives side-by-side with the present in a unique tapestry of living history. People of Cyprus have very strong ties with the country's history and tradition, which has a great importance in people's daily life. Traditional dresses, meals, crafts, architecture, lace making, poetry, and so on can be seen around the island, and in addition, there are festivals that are being held in the same way like the ones thousands of years ago.

In Cyprus, lately, identity has become the center of discussions of academicians because of the recent political developments related to the desire – or possibility – of unification of the island again. These arguments used in the so-called discussions are mainly abstract concepts that generally refer to the concrete definitions with the aim of re-unification of the two societies. Nevertheless, these discussions cannot reject or exclude the architectural realities of the island.

In architectural practice, cultural identity of a society is an important issue, but it is not apt to focus entirely on the definitions of identity with specific references to ethnicity. This is the method of certain political practices that use the ethnic components as their most important factors when describing or referring to identity. However, instead of exploiting the ethnic origins of individuals to define their identity, the architectural realities of the island should be taken as the main cultural indicator of the Cypriot identity. In this way, it could be possible to consider all the social parameters of the present structure to come up with a proper definition of identity.

D. Identity: In context of architecture

The components of the concept of identity have direct relationships with the surrounding natural and built structures. Physical environment, in other words, architecture, presents a framework that constitutes the summation of the past and recent cultural configurations. Therefore, architectural artifacts possess the reflections of a specific place, city, or a region's identity. These artifacts include the dynamics of transforming and shaping the identity as well. The reason for this is that culture, language, tradition, and geography have very strong organic ties among themselves. These strong ties produce a dialectical relationship that directly influences the architecture of a society.

Correspondingly, Kostof [4] accepted time as the fourth dimension and emphasized the effects of tradition on architecture. According to him, tradition is a language, a resource, a challenge, a big vessel, which collects architectural

experiences in it and no structure can be alive outside of it. The main concern should be considering architecture in historical context.

Culture usually refers to the patterns of human activity and the representative structures that give significance to such activity. There have been many more definitions and conceptualizations of culture. Rapoport believes that all the definitions fall into one of three general views of culture. According to him, areas of environment-behavior studies can be best understood in terms of three components: settings and places, user groups, and socio-behavioral phenomena. Ignoring the details, one can suggest that surroundings and places can be culturally defined. "What we call regions, cities, suburbs, dwellings, rooms of various kinds (e.g. living rooms, family rooms, dens, kitchens, bathrooms, studies, offices, seminar rooms), parks, streets and the many building types and their parts and so on and on, as well as the settings of which they are composed, are all culturally defined" [5]. Furthermore, the way in which people behave and their social structures reflect the dynamics of inner formations, which are all culturally highly variable and can be seen as specific expressions of culture.

Cultural values of buildings express the old and new stories of a society, and the actual people of these tales. The old and present dreams, interrogations, justifications, challenges, oppositions, resistance, and even failures of the society have become concrete in surrounding physical environment as a combination of stone, brick, and mortar. The opportunity of transferring cultural heritage from one generation to the other brings about the continuity of inheritance. However, in some cases, this chance cannot be used as positively as its big potential to be effective.

Although the island of Cyprus has very rich cultural and historical deposition, one cannot observe and experience high-quality space organizations or well-planned urban or residential environment in all the areas, either in the Turkish side or Greek side, in terms of the value of the current building standards. The possible reasons for this situation may arise both from the negative effects of deficient periods of modern/post-modern transfer processes and the tentative and sometimes inequitable political periods of the reality of divided island. The effects of being exposed to political and military pressures can be easily observed on social sensitivity and the identity expressions of the individuals.

The society whose members are aware of its history may have a strong consciousness of "being" and can integrate with the built environment. They feel themselves belonging to this environment; hence, this sensation gives any environment to have the character of "to be belonging to," and individuals perceive this spirit.

Architecture acquires "spirit of a place" or "genius loci" and makes people feel that they have an identity. Architecture serves society as a real witness of the past, and indicates the differences and earnings of the society throughout history [6]. It tells the actual stories to educate, comfort, entertain, and

encourage the society to increase the resistance towards the struggles before progress.

In this framework, architectural critics scrutinize spatial and philosophical characters of the built environment by using the active parameters of creating a space. Therefore, the analysis of the social and architectural formations on the island cannot be based on or explained by referring to post-modern philosophy, or as Jameson puts it, the cultural logic of late capitalism. These formations should also be considered as the indications of false urbanization.

III. MODERNISM OR POST-MODERN PARADIGM IN CYPRUS

Actually, every piece of art reflects the characteristics of the time when it is created and social conditions in which it is designed. Similarly, the psychology of a specific social class is reflected through the content of every piece of art [7]. In the same way, a building is accepted as an artful object and is believed to reflect these kinds of clues about the structure and features of the society and era. Gothic, baroque, modern, or post-modern features of buildings express the realities of the philosophical, ideological, economic, and social structures of the time in which they were built.

In this context, architecture has dynamic variables that can change according to time, place, culture, and tradition. Modern discourse and every attitude opposing this discourse is the result of the behavioral formation corresponding to the ideological processes of that time. These processes constitute the factors after industrial revolution. Naturally, even today, the conditions of societies that have been experiencing the factors of industrial revolution are very different from those did not witness these processes. The formation of basic elements of art, architecture, science, and culture are directly affected by the absence of these kinds of experiences. For instance, there are not many representations of modern architecture style, whereas there are numerous good examples of gothic era on the island.

A. Modernism vs. post-modernism

The power of modern design emerged from the principles that limit ornamentation and place adequacy on top of everything, relying only on the unchanging scientific approach and utilizing redefined form and content by using advanced technology in architecture. Modern architecture is primarily driven by the technological and engineering developments, and it is true that the availability of new building materials, such as iron, steel, concrete, and glass triggered the inventions of new building techniques. Thus, modernism in architecture refers to high-rising glass blocks in city centers, as shown in Fig. 1. Modernism focuses on Sullivan's saying that "form follows function," and thus form lost its importance.

As the machine age influenced the building appearances by making use of new industrial construction materials, architectural formation of modern era can be summarized as flat, simple facades with large window openings, definite structural systems, modular design units, rejection of historical form, denial of tradition, abstract interiors, open plan

schemata, objective, analytical design approach, machine-like design, and rational attitudes towards the other.

At the same time, the active forces of social life are reflections of mass culture, hierarchy, order, centralized control, dichotomy of high and low culture (official vs. popular culture), mass consumption, mass marketing, master narrative of progress through science and technology, reality, knowledge mastery, and attempts to embrace a totality.



Fig. 1 Seagram Building

During the 1950s, modern architecture was increasingly criticized for its sterility, its “institutional” anonymity, and its disregard for regional building traditions. Unlike modernism, post-modernism in architecture exhibited itself as a kind of aesthetic populism, as suggested by the title of Venturi’s influential manifesto, “Learning from Las Vegas.” In brief, post-modernism is the historical era following the modern era. It is also called the artistic and stylistic eclecticism, that is, the hybridization of forms and genres, mixing styles of different cultures or time periods, and de- and re-contextualizing styles in architecture, visual arts, and literature. Post-modernism also emphasizes cultural diversity, globalization of cultures, races, images, capital, and products in information age.

The language of information age revealed the redefinition of nation-state identities, which were the foundation of the modern era, dissemination of images and information across national boundaries, a sense of erosion or breakdown of national, linguistic, ethnic, and cultural identities, as well as a

sense of a global mixture of cultures on a scale unknown to pre-information era societies. Lyotard explained post-modernism as a historical/cultural condition based on dissolution of great narratives or meta-narratives, a crisis in ideology when ideology no longer seems transparent [8].



Fig. 2 A view from Las Vegas

However, when this populist rhetoric is evaluated, the fundamental features of the post-modernism can be distinguished clearly, namely, the effacement of the high-modernist frontier between high culture and so-called mass or commercial culture, and the emergence of new kinds of texts infused with the forms, categories, and contents of that culture industry passionately denounced by all the ideologues of the modern, from Leavis and the American New Criticism, all the way to Adorno and the Frankfurt School [9].

Post-modernist style refreshed ornamentation and allegory, returned to articulation and ridiculous ones, rediscovered metaphor and imitation, and embraced historicism and eclecticism by holding the Robert Venturi’s saying “Less is bore” in architecture. For this reason, post-modernism gave importance to Las Vegas architecture, whereas New York architecture is accepted as the symbol of modernism (See Figs 1 and 2). Indeed, theories of post-modernism bear a strong family resemblance to all those more ambitious sociological generalizations that simultaneously bring us the news of the arrival and inauguration of a whole new type of society, most famously baptized “Post-industrial society” [10], but often also designated consumer society, media society, information society, electronic or high-tech society, and the like. The utopian visions of modernism were either rejected in favor of cynicism, nihilism, and, in some cases, a turn to the right, or were dramatically recast and scaled down to more “modest” (nonsystemic, nonrevolutionary) proportions of post-modernism” [11]. Finally, modernism became a system of rules and a part of “high art,” whereas post-modernism demonstrated itself in an aesthetic way, initiated from the acceptance of “anything goes” philosophy in pop art, architecture, film making, and literature.

IV. REFLECTIONS OF MODERNISM IN CYPRUS

Countries, such as Cyprus, which did not live through the process of modernism at the same time and dimension as the industrialized countries, have had to cope with various rapid developments in their economic, social, and cultural affairs. Therefore, feudal relationships of production in a country with a medium-sized island economy managed to survive these historical processes by sometimes changing its scope and sometimes adapting to these changes. This condition created by continuity, emerged with the capitalist practices, which shaped all modern and post-modern occurrences. On the other hand, the incorporation of the natural outcomes of technological developments at a global scale into these awry processes has created a “many-sided/indecisive” sociological character and therefore resulted in false urbanization.

The main attribute of this character is the adulterated feudal, modern, and post-modern composition, which resulted in an indecisive/slippery/jellylike social structure. This structure can be negative in terms of not creating conscious and determined individuals, but can be positive because it includes both the traditional and local. Before the existing feudal and suburbanized culture on the island became urbanized, the Cypriot society witnessed the effects of global capitalistic spreading, but because of not having a proper bourgeoisie class, the urban culture was not able to influence individuals and the society.

The most important of all is probably the fact that Cyprus did not witness how modernity created similar identities and monotonous processes with no viability and imagination, excluding the local and original with a grand mission of forming prototype cultural values. While the world produced social/urban structures as a result of experiencing identity crisis or searching for an identity, Cyprus, which actually has never lost its local values, small-scale feudal relationships in its cities, and the merits of neighboring activities, debated identity only in certain social events determined by political discussions. Certainly, this condition directly depended on the continuous movement of the Cypriot multicultural population and the unnatural determination of political borders between the south and the north.

In Cyprus, when compared with countries with a longer history, there is a population that changes places with social vivacities, restructuring/changing its habits and physical environment in which it spends its daily life. Here, the main predicament is that together with the political, economic, and/or democratic problems, the feeling of the state of belonging has been undermined and the feeling of ownership has been transformed into a practice that can easily change. If an individual thinks that he does not belong to a place and has not even discovered the existing organic links between himself and the environment he is living in, he cannot intellectually form a feeling of a “place” and will not be troubled with a problem of a “quality of place.” In fact, the problem that the urban culture has not been able to develop homogeneously within the inner characteristics of the society

can be considered as the most significant common denominator among the communities living on both the sides of the island.

When the whole discussion is considered in accordance with the above-mentioned judgments, it is apparent that a physical environment reflecting the negative influence of several factors with the support of the esthetics of the structures of housing appeared on the island where the process of industrialization has not been experienced and feudal cultural relationships have not been fully abandoned, but every technical and formal facilities of the capitalism have been exported.

It is observed that on both the sides of the island, the cities have developed mainly “by their own,” unaesthetic, and false way, without urban planning. It is very common to see unkempt sun-dried brick houses almost ready to fall down in all the cities, including the capital city Nicosia. The main concern here is not the rural appearance of the cities, but the damage rendered to physical environment and the ugly images created by these unharmonious and inappropriate building developments.



Fig. 3 A street from Kizilbas, Nicosia

This worrying situation does not only arise from the old buildings that are dilapidated. On the contrary, the concrete buildings in which people usually start to live in before they are fully completed, the buildings designed (actually not designed) with no architectural aesthetic concerns, and the buildings with shantytown appearances are more disturbing. These unharmonious, irregular, incongruous, and visually unattractive buildings cannot be described as modern or post-modern.

As it can be seen from Figs 3 and 4, these buildings that do not possess any architectural aesthetics or language and developed unhealthily “by their own,” are not examples of traditional architecture of Cyprus (Fig. 5) and constitute a large amount of the building stock of the country.

Another important occurrence regarding the houses constructed is that they are expensive enormous villas. The buildings with different functions are casually constructed without any plan on almost every land. For example, one can

observe huge posh houses built next to a petrol station or a mechanic shop.



Fig. 4 A shop and a house in Yenisehir, Nicosia

This controversy is a sign of abnormality, an indication of unplanned developments and a lack of urban consciousness and sensitivity. However, unless people living in cities construct an “urban culture,” it is almost impossible to observe sensitivity, and with this sensitivity, it is not possible to observe the strong reflections of the urban identity.



Fig. 5 Traditional Cyprus houses in Paphos

A. Resemblance to Post-modern Attitude: Construction “by its own”

In Cyprus, there are numerous buildings that are irregularly built without any serious control and have no architectural value at all. The unmodern characteristics of these buildings cannot be described as post-modern just because they do not harmonize with modernism. Post-modernism is a phenomenon existing beyond modernism, and should not be confused with primitive architectural images. It is essential that we become very sensitive towards the above-mentioned distinction of modern and post-modern, while conducting architectural critique, and exhibit a skeptical attitude in our criticism.

Those who have experienced modernism and have a propensity towards post-modern practices can be considered as a fantasy in developed countries or an imitation towards seeking diversity, such as the houses of Hundertwasser (Fig. 6). However, in societies where feudal relationships are still valid, these practices are the life itself and have the potential

risk to include all possible negative conditions of building comfort (Fig. 7).



Fig. 6 Hundertwasser House, Vienna

The buildings with many infrastructural, functional, and aesthetic problems create visual dirt in cities and negatively affect the urban identity, which is not yet formed properly.

Therefore, complexity and disorder of things encountered in Las Vegas can be an answer to the search of post-modern aesthetics, but it is very difficult to decide whether any false and crooked image in Cyprus represents cultural diversity based on local values or is a result of unplanned production of building environment that does not concur with any architectural ethical value.



Fig. 7 Dereboyu Street, Nicosia

In fact, the architectural and cultural progress in Cyprus is seemingly post-modern, but in-depth analysis reveals that these are the results of unfilled and uncontrolled attempts of unhealthy constructions of growing “by its own.” It is therefore significant that everyone in architectural practice in Cyprus carry out the above-mentioned self-assessment and present a more positive attitude towards building environment.

V. CONCLUSION AND RECOMMENDATIONS

The aim of this study was to analyze the main reasons for the critiques made towards the constructed areas of Cyprus,

that is, its residential areas. Judgments made throughout the study led us to a conclusion that the processes that constitute the urban consciousness have not been uninterruptedly experienced, and therefore, have resulted in planning problems, which ended in uncontrolled growth with no stimulation. This has resulted in a growth “by its own” phenomenon. While the so-called “growth by its own” before industrialization created quality and viable spaces, today, it has created under quality and difficulty to live in spaces.

This negative occurrence, as observed in all architectural inventories, has affected the apartment buildings in cities, small and big semi-detached, detached houses, and villas. In fact, the buildings have various problems concerning their exteriors, dimensions, and aesthetic values.

It is also very difficult to judge and understand whether these buildings are products of architecturally appropriate design criteria or whether they utilize any principle of interior and landscape design. The materials used in these buildings and their communication with the surrounding environment needs to be seriously reconsidered. Based on these judgments, local authorities and professional organizations should take some measures by activating the administrative legislative mechanisms, work to establish an environmental consciousness and a feeling of ownership towards the city lived in, and finally, support good architectural practices.

It is important to locate the buildings with revolting visual appearances, demolish or renovate them immediately, and find financial support to maintain unattended building environments. It is also necessary to check unfinished buildings to ensure that people do not settle in. Authorities should also be sensitive towards the implementation of design projects.

It is also important that the urban growth should be harmonious with the surrounding history, cultural values, architectural ethics, and urban characteristics.

Therefore, architects have more responsibility now, and have to seriously consider the architectural ethical concerns. Stylistically, local architectural components have to be prioritized and emphasized in the context of traditional Cypriot architecture; building and city scale should have accurately determined criteria regarding the regional characteristics of the island.

Local authorities and municipalities should organize educational programs and support the formation of urban identity and a consciousness of citizenship. Furthermore, all the efforts for creating contemporary built environment should be planned in accordance with the concept of sustainability.

REFERENCES

- [1] K. Woodward. *Identity and Difference*. London , England.: Sage Publication. 1997, pp 12.
- [2] Z. Bauman, From pilgrim to tourist- or a short history of identity. In S. Hall (Ed.), Paul de Guy (Ed.), *Questions of cultural identity* (p. London, England: Sage Publication Ltd., 1996, pp 19.
- [3] M. Heidegger. *Being and Time*. New York : Harper and Row, 1966.
- [4] S. Kostof, Spiro. *A History of Architecture*. NewYork: Oxford University Press, 1983.
- [5] A. Rapoport. Cross-Cultural Aspects of Environmental Design. In Altman, Rapoport and Wohlwill, *Human Behavior and Environment: Environment and Culture*. New York : Plenum Press, 1980. pp 7-46
- [6] L. Krier. Tradition, Modernity, Modernism_(from Leon Krier: A Profile by Ian Latham). *Architectural Design*, 57, 1/2 , 1987, pp 38-43.
- [7] S Solcun. *Tarih Bilinci ve Edebiyat Bilimi*. Ankara: DayanismaYayinlari, 1982
- [8] J.F. Lyotard. *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Brian Massumi Foreword by Fredric Jameson. Minesota: University of Minnesota Press, 1984.
- [9] F. Jameson. *Postmodernism or, The Cultural Logic of Late Capitalism* Durham, NC: Duke University Press, 1991, (pp.18-24).
- [10] D. Bell. *The Coming of Post-Industrial Society: A Venture in Social Forecasting*. New York: Basic Books, 1973.
- [11] D. Kellner. Postmodernism as Social Theory: Some Problems and Challenges. *Theory, Culture and Society*, 5 (2-3), 1988, pp 239-270.