Nummer 11

Update Available

Transforming Education in Design, Film and Fine Arts

HSLU Lucerne University of Applied Sciences and Arts

Design & Kunst

SIEBEN THESEN FÜR DIE AUSBILDUNGEN DER ZUKUNFT

Die Welt von morgen gestalten

Orlando Budelacci

Die Zukunft gehört jenen, die sich trauen, am Bestehenden zu rütteln und die mit ihren Ideen die Welt herausfordern. Genau darin bilden wir Designerinnen, Filmschaffende, Künstler und Forscherinnen aus. Seit mehr als 140 Jahren.

Bilder auf der Grundlage von Texten geniert durch das AI-Tool Midjourney
Prompts von Klaus Marek

SEVEN THESES FOR THE EDUCATION OF THE FUTURE

Shaping the World of Tomorrow

Orlando Budelacci

The future belongs to those who dare to shake up the status quo and challenge the world with their ideas. This is exactly what we train designers, filmmakers, artists and researchers to do. And have been for more than 140 years.

Images by Midjourney, an AI-powered tool that creates images from texts
Prompts by Klaus Marek

EXPLORATIONS-LUST FÖRDERN

Design, Film und Kunst brauchen neugieriges Staunen über die Welt. Wer staunt, hat die Grundlage, um auf Unerwartetes und Neues in der Welt zu reagieren. Wer staunt und Zwischentöne, Facetten und Verästelungen wahrnimmt, gewinnt neuartige Erkenntnisse über die Welt und lernt sich dadurch selbst besser kennen. Staunen ist keine passive Haltung, sondern die aktive, offene Reflexion von Welt. Wie sich diese Welt verändert, fernab von Nutzenkalkül und wissenschaftlicher Erklärung, das kann man im Blick behalten, indem man mit offenen Augen und wachem Verstand ihrer Komplexität begegnet und die eigene Voreingenommenheit kritisch reflektiert. Neues kann man auf verschiedene Weise erkunden: durch künstlerischen Ausdruck, durch wissenschaftliches Denken, durch gestalterisch-handwerkliche Fähigkeiten und den Willen zur Form. Wir schaffen durch unsere Ausbildungen Anreize zum Entdecken von Neuem und fördern Explorationslust im Denken, Handeln und Gestalten.

ENCOURAGE THE DESIRE TO EXPLORE

Design, film and fine arts require curious wonder about the world. Those who wonder have the foundation to react to what is unexpected and new in the world. Those who wonder and perceive nuances, facets and ramifications gain new insights into the world and thus get to know themselves better. Wonder is not a passive attitude, but active, open reflection on the world. Keeping abreast of how this world changes, far removed from utility calculations and scientific explanations, entails encountering its complexity with open eyes and an alert mind, and critically reflecting on one's own bias. New things can be explored in various ways: through artistic expression, through scientific thinking, through creative-craft skills and the will to shape. Through our education, we create incentives to discover new things and encourage the desire to explore while thinking, acting and designing.

«Zauberlehrling by Ferdinand Barth wearing VR goggles»

GEMEINSAM LERNEN

Wir schaffen mehr Möglichkeiten des Austauschs und des Miteinanders. Wir fördern gemeinsame Lernerfahrungen, um die Studierenden, Dozierenden noch besser miteinander zu verbinden und auf die Beantwortung komplexer Fragen der Welt vorzubereiten. Sinnstiftung entsteht durch gemeinschaftliche Projekte in einer Gruppe, dazu bedarf es der Fähigkeit, in Gruppen Entscheidungen zu treffen und sich in der Gruppe zu koordinieren, um Projektziele zu erreichen. In besonderer Weise sind darin Geduld, Kompromissfähigkeit und Durchhaltevermögen wichtige Fähigkeiten. Wir schaffen durch die neuen Studienstrukturen Wahlfreiheiten für disziplinäre Vertiefung und interdisziplinäres Arbeiten.

LEARN TOGETHER

We create more opportunities for exchange and togetherness. We promote shared learning experiences to connect students and lecturers even better and prepare them to answer the world's complex questions. Meaning is created through collaborative group projects, which require the ability to make decisions in groups and to coordinate among members to achieve project goals. Patience, the ability to compromise and perseverance are particularly important skills in collaborative work. With the new study structures, we create freedom of choice for disciplinary consolidation and interdisciplinary work.

«A group of young people together balance on their shoulders a large round mirrored tray on which many small contemporary design objects are piled high»

TECHNOLOGIE REFLEKTIEREN

Digitalisierung und technologischer Wandel erfordern den Erwerb neuer Kompetenzen im Rahmen der Ausbildung der Studierenden. Aus diesem Grund wird der fachübergreifende Bereich mit Blick auf die Future Skills erweitert. Die neu erarbeiteten Studienstrukturen bieten mehr Möglichkeiten, um aktuelle und zukunftsgerichtete Bedürfnisse in die Ausbildungen zu integrieren. Dabei geht es nicht nur um das didaktische Ziel der Berufsbefähigung bspw. durch die Vermittlung von digitalen Kompetenzen, sondern insbesondere für die Luzerner Hochschule für Design und Kunst auch um den weiteren Aufbau von Kompetenzen zur sinnerfüllten Teilhabe an der Gesellschaft. Wir fördern ein breiteres Spektrum von Kompetenzen, Skills und auch die kritische Reflexion von Werten, damit die Studierenden gut mit den auf uns zukommenden technologischen, sozialen und kulturellen Veränderungen umgehen können.

REFLECT ON TECHNOLOGY

Digitalisation and technological change require the acquisition of new competences within the framework of students' education. For this reason, the interdisciplinary area is being expanded with a view to skills to learn for the future. The newly developed study structures offer more opportunities to integrate current and future-oriented needs into the education programmes. The courses of study are conceived especially for the Lucerne School of Art and Design not only to meet the didactic goal of professional qualification, for example by teaching digital skills, but also to further develop the skills needed for meaningful participation in society. We promote a broader spectrum of competences and skills as well as critical reflection on values so that students can deal well with upcoming changes in technology, society and culture.

«A romantic 18th-century landscaped park with a digital, tech-looking and brightly lit hermit hut»

FLEXIBEL UND INDIVIDUELL STUDIEREN

Wir nehmen Studierende ernst und bieten ihnen Flexibilität, um ihre eigenen Lernpfade festzulegen. Damit schenken wir ihnen Vertrauen und übergeben ihnen auch die Verantwortung für selbstgesteuertes Lernen. Die Studierenden sind dazu angehalten, den Weg ihres Studiums mitzusteuern, u.a. durch Wahlfächer, aber auch durch von ihnen festlegte Projektziele. Sie eignen sich Kompetenzen an, um sich selbst einzuschätzen und zu beurteilen. Wir fördern Autonomie im Umgang mit neuen Technologien und Medien und sensibilisieren gleichzeitig über ihre Chancen und Risiken. Wir bereiten sie durch die Verknüpfung von Theorie und Praxis auf die Berufswelt und die weitere Zukunft vor. Wir schaffen Orientierung für die Studierenden, indem wir die Bachelor-Studienangebote im fächerübergreifenden Bereich nach sieben inhaltlich-strategischen Kompetenzfeldern ordnen.

STUDY FLEXIBLY AND INDIVIDUALLY

We take students seriously and offer them flexibility in setting their own learning paths. In doing so, we give them confidence and also relinquish to them the responsibility for self-directed learning. Students are encouraged to steer themselves along their academic path, not only by choosing electives, but also by selecting their own project goals. They acquire the competences they need to assess and evaluate their own work. We promote autonomy in dealing with new technologies and media, while raising awareness about their opportunities and risks. We prepare students for the professional world and their future in society by linking theory and praxis. We create orientation for students by organising the interdisciplinary Bachelor's degree programmes according to seven content-related strategic competence fields.

«Cockpit of a spaceship with many luminous indicators and control levers»

HANDWERK VERANKERN

Handwerkliches Können ist im Zuge der Automatisierung, Industrialisierung und Digitalisierung nicht obsolet geworden. Im Gegenteil: Handwerk stiftet Sinn und Orientierung und stellt ein menschliches Grundbedürfnis dar. Durch die Gestaltung<von Dingen und Objekten verstehen und begreifen wir die Welt. Der Mensch ist Hersteller von Dingen, der im Austausch mit der Welt Neues schafft, diskutiert und reflektiert. Handwerk ist nicht eingeschränkt auf Tätigkeiten der materialen Gestaltung von physischen Objekten, sondern umfasst auch digitale Fertigkeiten wie Programmieren. Handwerk ist sinnstiftend, weil man es tut. Handwerkliches Arbeiten ist Spiel und Freude, Werden und Vergehen. Es ist ein unschuldiges Suchen und Formen von inneren und äusseren Ordnungen.

ANCHOR CRAFTSMANSHIP

Craftsmanship has not become obsolete in the course of automation, industrialisation and digitalisation. On the contrary: craft creates meaning and orientation and represents a basic human need. Through the design of things and objects, we understand and comprehend the world. The human being is a maker of things who creates, discusses and reflects on new things in exchange with others. Craft is not limited to the material design of physical objects, but also includes digital skills such as programming. Craft is meaningful because it is something you do. Craft work is play and joy, becoming and vanishing away. It is an innocent search for and shaping of interior and exterior systems.

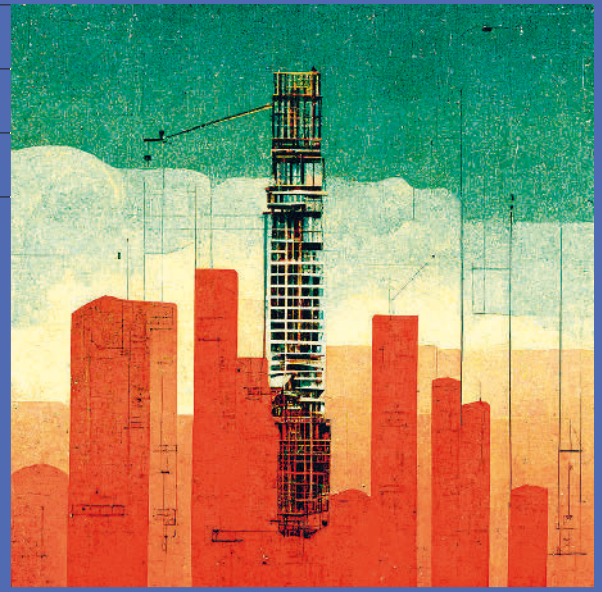
«Zaha Hadid Architects' Liberland in Metaverse with a Louis Sullivan three-dimensional sculptural facade»

MUTIG SEIN

BE COURAGEOUS

Zentral in den Ausbildungen ist nicht nur das Vermitteln und Anwenden von Wissen, sondern auch das Entwickeln einer eigenen Haltung zur Welt und im Gestalten. Lernen heisst, mutig zu sein, Erfahrungen zu machen. Experimentieren und der reflexive Umgang mit Scheitern sind Teil des Ausbildungskonzeptes. Erfolg, der beispielsweise kommerziell, medial oder auf Reputationsebene verstanden werden kann, und Innovation, die vor allem als sinnstiftende und realisierbare Kombination von Technik, Anwendung und Material interpretiert wird, werden kontinuierlich reflektiert und neu ausgelegt. Wir tolerieren keine Diskriminierung, sondern setzten uns aktiv für Toleranz und respektvollen Umgang ein.

Central to the training is not only the imparting and application of knowledge, but also the development of one's own attitude to the world and position in the activity of design. Learning means being courageous, making experiences. Experimenting and dealing reflexively with failure is part of the training concept. Success, which can be understood commercially, medially or on a reputational level, and innovation, which is interpreted primarily as a meaningful and realisable combination of technology, application and material, are continuously reflected upon and reinterpreted. We do not tolerate discrimination, but actively advocate tolerance and respectful interaction.



«Construction site steel skyscraper, Archigram style, Michelangelo»

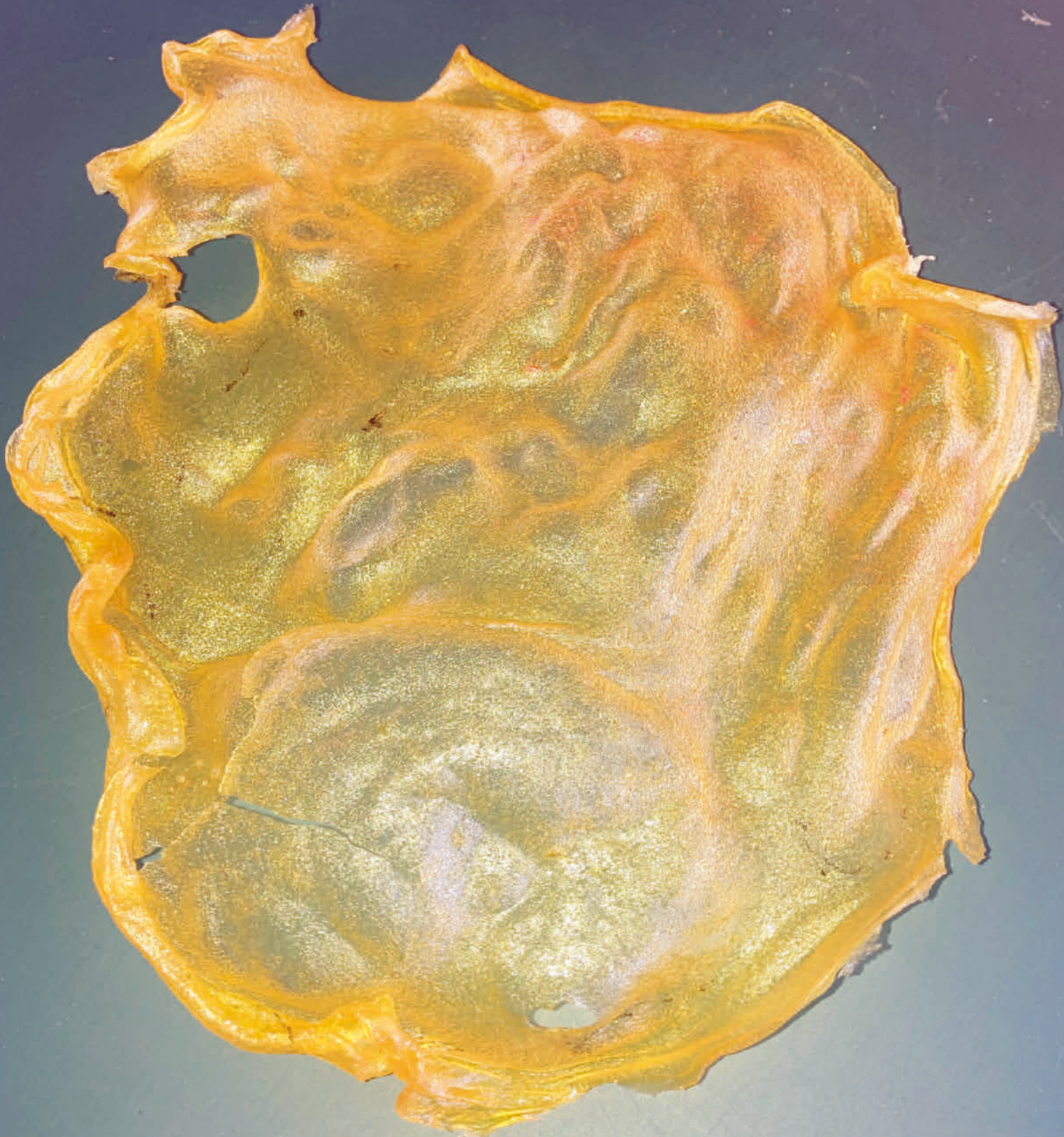
NACHHALTIG DENKEN

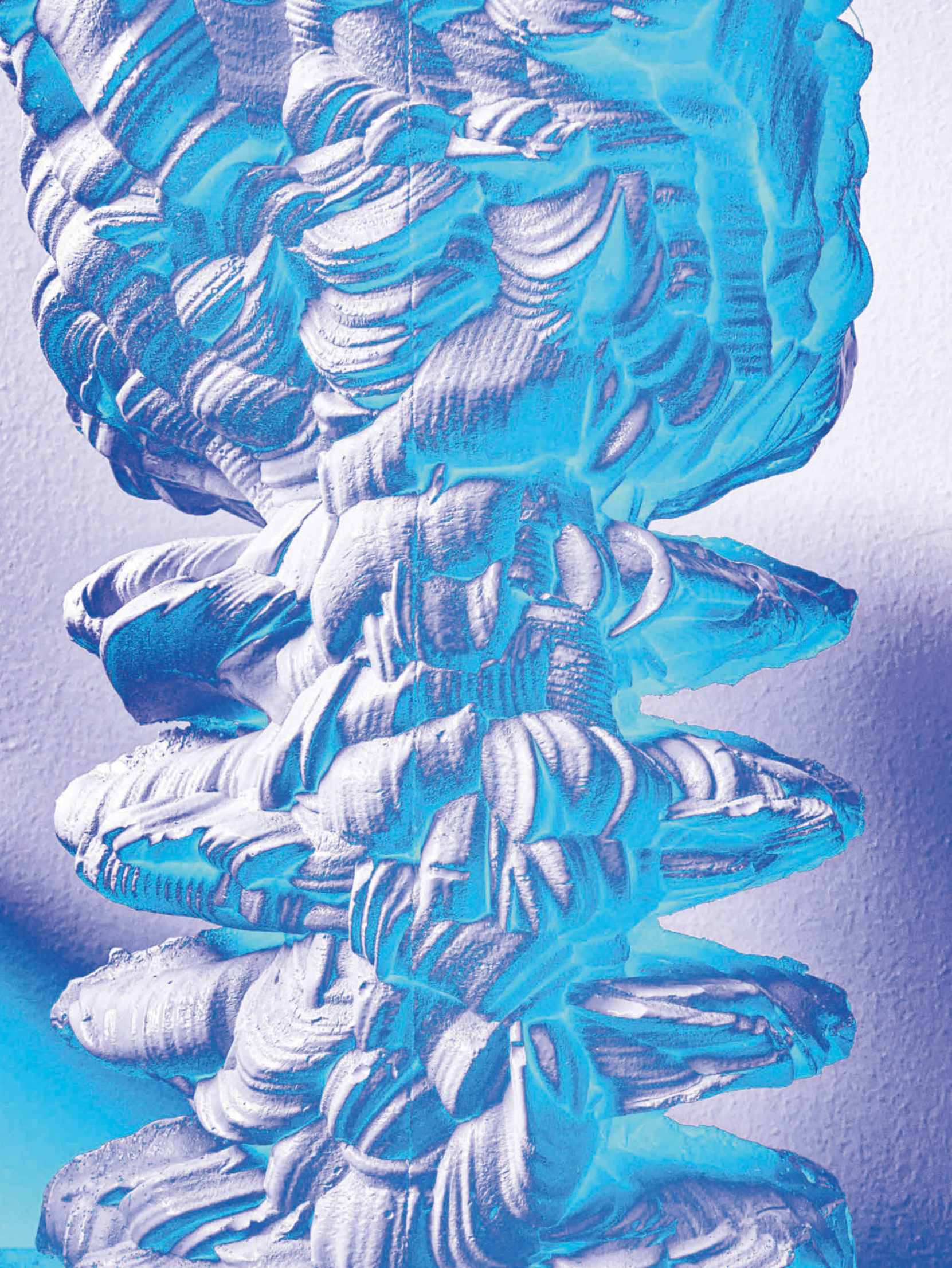
Die Natur ist verletzbar geworden. Wir sind sehr nahe am Wendepunkt, wo die Schäden irreversibel sind. Wir sind einem grossen Verlust an Biodiversität, Pflanzen und Tieren ausgesetzt. Der Mensch hat durch die selbst geschaffenen technischen Möglichkeiten die Macht erhalten, das Gleichgewicht der Natur zu stören und den Planeten zu zerstören. In unseren Ausbildungen setzen wir uns entlang den 17 UNO-Zielen unabhängig von der disziplinären Ausrichtung mit Fragen der Nachhaltigkeit auseinander und reflektieren Möglichkeiten nachhaltigen Engagements und setzen diese auch praktisch in Design, Film und Kunst um. Wir diskutieren diese Fragen auf wissenschaftlicher Grundlage und pflegen den Austausch mit interdisziplinären Wissenszentren. Wir fördern keine Ideologien, sondern setzen uns kritisch mit aktuellen Entwicklungen auseinander, reflektieren sie und fördern eine offene Haltung gegenüber unterschiedlichen Werten, Weltbildern und Diskursen.

THINK SUSTAINABLY

Nature has become vulnerable. We are very close to the tipping point where the damage will become irreversible. We are facing a great loss of biodiversity, plants and animals. Humans have acquired the power to disturb the balance of nature and destroy the planet through technical possibilities they have created themselves. In our training courses, we deal with questions of sustainability along the 17 UN goals, regardless of disciplinary orientation, and reflect on possibilities for sustainable engagement and their practical implementation in design, film and fine arts. We discuss these questions on a scientific basis and cultivate exchange with interdisciplinary knowledge centres. We do not promote ideologies, but critically engage with current developments, reflect on them and promote an open attitude towards different values, world views and discourses.

«Project by Herzog & de Meuron in reuse style, built from recycled components»



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Zur Transformation unseres Curriculums

Jacqueline Holzer

Spätsommer 2018. Kloster Engelberg. Auftakt zur neuen Curriculumsentwicklung. Das Ziel der Kaderklausur ist es, auf zukünftige Herausforderungen zu reagieren: auf die Digitalisierung, auf neue Formen der Zusammenarbeit, auf die Frage, wie Lehre und Forschung (noch) stärker zusammen zu bringen sind, sowie auf eine verstärkte Internationalisierung der Hochschule Luzern – Design & Kunst. Die Devise der Klausur lautete denn auch: «Keeping the Future Present».

Sind die Studierenden als Spezialist:innen nach ihrem Abschluss genügend auf den (digitalen) Wandel vorbereitet?

Die Beschäftigung mit möglichen Zukünften initiierte eine Reflexion des eigenen Curriculums. Die Kaderleute unterzogen zusammen mit ihren Teams die bestehenden Lehrpläne im Bachelor einer kritischen Prüfung und stellten die Frage in den Raum, ob ihre Ausbildungen die Studierenden nicht nur als qualifizierte Fachpersonen ins Berufsleben entliess, sondern ob sie die Studierenden auch auf die sich ständig verändernden Zukünfte vorbereitete: Sind die Studierenden als Spezialist:innen nach ihrem Abschluss genügend auf den (digitalen) Wandel vorbereitet? Vermögen sie kritisch denkend Transformationen zu realisieren? Verfügen sie über genügend Selbstbewusstsein, Empathie und Anpassungsfähigkeit, um erfolgreich zu kooperieren und interdisziplinär zusammenzuarbeiten? Und können sie selbstreflexiv und -organisiert eine nachhaltige Zukunft gestalten?

Eines steht fest: Eine Curriculumsentwicklung bedeutet, dass das seit Jahren Gültige reflektiert und evaluiert wird und zu grosser Unsicherheit führen kann. Es braucht demnach ein positiv konnotiertes Verhältnis zum Wandel. Sicherlich ein einleuchtendes Ansinnen, doch ist es in einem von fordernden (Führungs-)Aufgaben geprägten Lehr- und Forschungsalltag einzulösen?

Je mehr Personen mit unterschiedlichen Erfahrungen und Hintergründen beteiligt sind, desto anspruchsvoller gestaltet sich der Wandel.

Die unabdingbare Voraussetzung für einen solchen Prozess ist es, alle Verantwortlichen davon zu überzeugen, dass das neue Curriculum die eigenen Studierenden nach deren Abschluss (noch) weiterbringen wird. Eine anspruchsvolle Aufgabe. Denn Kadermenschen und ihre Teams für gemeinsame hochschulübergreifende Ziele zu gewinnen ist nicht ganz einfach. Expert:innen, die an Hochschulen tätig sind, sind, wie es Ada Pellert längst in ihrem Klassiker *Die Universität als Organisation. Die Kunst, Experten zu managen*[1] beschrieben hat, intrinsisch motivierte Koryphäen, die nach Perfektionismus in der Lehre und Forschung streben; sie identifizieren sich eher mit dem eigenen Fachgebiet als mit ihrer Arbeitgeberin. Eine Transformation, die zum Ziel hat, Strukturen und neue inhaltliche Themen gemeinsam zu erarbeiten, ist komplex. Je mehr Personen mit unterschiedlichen Erfahrungen und Hintergründen beteiligt sind, desto anspruchsvoller gestaltet sich der Wandel. Ebenso finden in einer vielschichtigen Organisation, wie es die Hochschule Luzern – Design & Kunst ist, gleichzeitig stattfindende strukturelle und inhaltliche Veränderungen statt. Diese Form der Gleichzeitigkeit verlangt von allen Leitungspersonen eine erhöhte Ambiguitätstoleranz, wie es vielleicht etwas euphemistisch in den Managementbüchern beschrieben wird.[2] Denn jede Entscheidung hat wiederum Konsequenzen auf andere noch zu treffende Setzungen.

Diese Prozesse verliefen – selbstverständlich – nicht ohne Friktionen. Denn die Frage, wer letzten Endes die Definitionsmacht über die Inhalte, die Strukturen hatte, war Anlass zu verschiedenen Streitgesprächen. Die Beteiligten führten dabei je ihre eigenen Haltungen und diskursiven Positionierung ins Feld. Sie agierten als «Träger[:innen] geschichtlicher Entwicklung eines Denkgebietes, eines bestimmten Wissensbestandes und Kultur-

standes, also eines besonderen Denkstiles».[3] Nebeneffekt dieser Diskussionen war, dass ein tieferes gegenseitiges Verständnis für die Arbeit ‹der anderen› entstand; es ist ein Raum geschaffen worden, in welchem die Verantwortlichen und die Lehrenden bereichs- und disziplinenübergreifend kooperieren und agil sowie nachhaltig zusammenarbeiten. Die diversen Denk- und Handlungskollektive haben sich zueinander in Bezug gesetzt und so ihre unterschiedlich verwendeten Semantiken, Arbeitsweisen und Haltungen geklärt.

Resultat dieser Diskussionen ist einerseits ein breit gefächertes und umfassendes Angebot, aus welchem sich die Studierenden Zukunftskompetenzen in den Feldern Digitalität, Explorative Forschen, Kreatives Unternehmertum, Kritisches Denken, Material & Praxis, Nachhaltigkeit sowie Selbstermächtigung & Engagement aneignen können. Andererseits haben die Studienrichtungsleitenden, die Verantwortlichen der fächerübergreifenden Bereiche sowie die externen Partner:innen auch neue Zusammenarbeitsformen gestaltet, die einen wesentlichen Bestandteil für die Kulturentwicklung darstellen. Und zudem ist durch diese neuen Strukturen ein erweiterter inhaltlicher Möglichkeitsraum entstanden, der sich auf die dringlichen Themen der Gegenwart und der Zukunft zeitnah anpassen lässt.

Im Herbst 2022 ist das neue Curriculum gestartet. Der Change Prozess ist abgeschlossen. Die Arbeit war neben dem anspruchsvollen Alltagsgeschäft ungemein herausfordernd, anstrengend und auch von einigen Friktionen geprägt.

Nimmt man den Transformationsprozess in den Blick, zeigt sich vor allem eines: Die Kultur einer Organisation ist entscheidend für den Erfolg einer solchen Entwicklung. In jeder Organisation bestehen «dunkle Stellen, an denen nichts zu erkennen ist und keine Fragen gestellt»[4] werden, wie es einmal Mary Douglas formuliert hatte. Alle halten sich «zueinander in einem Abstand, in einer Brechung»[5], bleiben in ihrem eigenen Denkkollektiv eingebunden, welches sie in ihrer Art und Weise, die Wirklichkeit wahrzunehmen und zu interpretieren, beeinflusst.[6] Gelingt es den Beteiligten nicht, sich auf andere Sichtweisen und Kompetenzen einzulassen, kann kein genuiner Diskurs entstehen.

Eine Kommunikation zwischen verschiedenen Denkkollektiven ist entsprechend anspruchsvoll, denn in dieser Kommunikation sind die vermeintlich klaren Semantiken auf ihre verborgenen und oftmals impliziten Bedeutungen zu überprüfen, um überhaupt ein Verständnis zu ermöglichen. Kommunikation ist in solchen Prozessen alles. Und auch das Zulassen von Kontroversen. Und auch von Divergenzen. Und von Machtansprüchen.

So lernt die Bildungsinstitution – disziplinär, interdisziplinär, transdisziplinär – ausgelöst durch Reibungen, Dissonanzen und auch Antagonismen.

Schafft es eine Organisation, dass die an einem Prozess Beteiligten genügend Vertrauen – auch in die Leitung – haben, diese Auseinandersetzungen zu führen und risikoreich Kritisches, vielleicht gar Ungewöhnliches in den Augen der anderen zu propagieren, erzielt sie innovative Resultate, die ihr und letzten Endes vor allem den Studierenden zugutekommen. Wenn dies gelingt, «bremst die institutionelle Gemeinschaft» nicht länger «die persönliche Neugier» und «setzt» nicht länger heroisch «Gewissheit, wo Ungewissheit herrscht».[7]

Entscheidend ist, dass dieser Prozess ergebnisoffen konzipiert ist, der sich – zusammen mit allen am Prozess Beteiligten – einem explorativen Vorgehen verpflichtet. So lernt die Bildungsinstitution – disziplinär, interdisziplinär, transdisziplinär – ausgelöst durch Reibungen, Dissonanzen und auch Antagonismen. Und eröffnet so die Möglichkeit für eine nachhaltige Transformation in ihren Ausbildungen und in ihrer Kultur.

In jeder Organisation bestehen «dunkle Stellen, an denen nichts zu erkennen ist und keine Fragen gestellt» werden, …

Das Ergebnis der Curriculumsentwicklung lässt sich sehen – wie diese Nummer zeigt: Die verschiedenen Artikel zeugen von den unterschiedlichen Perspektiven und Reflexionen zur Curriculumsentwicklung der Autor:innen. Die sieben Thesen für die Ausbildungen der Zukunft machen den Anfang. Es gibt den Blick zurück und die Begründungen für eine als dringlich empfundene Transformation. Der Verbindung zwischen Praxis und Theorie wird ebenso besonderes Augenmerk geschenkt wie den Zukunftskompetenzen Digitalität und Nachhaltigkeit. Und schliesslich gibt es die wichtige Einsicht, dass ohne die Leistungen der Administration und der Prozesssteuerung eine solch nachhaltige Transformation kaum möglich gewesen wäre.

Das Ergebnis der Curriculumsentwicklung lässt sich sehen …

1 Ada Pellert, *Die Universität als Organisation. Die Kunst, Experten zu managen*, Wien 1999.

2 Stephanie Kaudela-Baum, Jacqueline Holzer, Pierre-Yves Kocher, *Innovation Leadership. Führung zwischen Freiheit und Norm*, Wiesbaden 2014, S. 155.

3 Ludwik Fleck, *Entstehung und Entwicklung einer wissenschaftlichen Tatsache. Einführung in die Lehre vom Denkstil und Denkkollektiv* [1935], Frankfurt a. M. 1980, S. 54f.

4 Mary Douglas, *Wie Institutionen denken* [1986], Frankfurt a. M. 1991, S. 114.

5 Silvia Henke, Dieter Mersch, Nicolaj von der Meulen, Thomas Strässle und Jörg Wiesel, *Manifest der künstlerischen Forschung. Eine Verteidigung gegen ihre Verfechter*, Zürich 2020, S. 25, doi:10.4472/9783035802917.

6 Fleck 1980, S. 130.

7 Douglas 1991, S. 167.

«Keeping the Future Present»

On the Transformation of Our Curriculum

Jacqueline Holzer

Late summer 2018. Engelberg Abbey. Kick-off for the new curriculum development. The goal of the executive retreat is to react to future challenges: to digitalisation, to new forms of cooperation, to the question of how teaching and research can be integrated (even more) closely, and to the increased internationalisation of the Lucerne School of Art and Design. The retreat's motto stated this as well: «Keeping the Future Present».

The retreat's motto stated this as well: «Keeping the Future Present».

Occupying ourselves with possible futures initiated a reflection about our own curriculum. The executives along with their teams performed a critical assessment of the existing curricula in the Bachelor's programmes and raised the question as to whether our students' training not only released them into professional life as qualified specialists, but whether it also prepared them for constantly changing futures: Are students with specialised degrees sufficiently prepared for the (digital) transformation? Are they able to realise transformations through critical thinking? Do they have enough self-confidence, empathy and adaptability to cooperate successfully and across disciplines? And can they use introspection and organise themselves to shape a sustainable future?

Are they able to realise transformations through critical thinking?

One thing is certain: A curriculum development means that what has been valid for years is reflected upon and evaluated, which may lead to great uncertainty. Accordingly, what is needed is a relation to transformation that is positively connoted. While this is an obvious suggestion, can it be fulfilled in the daily business of teaching and researching that is characterised by demanding (leadership) tasks?

A side effect of these discussions was the emergence of deeper mutual understanding for the work of ‹the others›...

The imperative prerequisite for such a process is that everyone responsible is convinced that the new curriculum will (further) help their own students after they graduate. An ambitious task. For convincing executives and their teams to pursue goals shared across the university's disciplinary boundaries is far from easy. Experts who work at universities, as Ada Pellert described them in her now classic *Die Universität als Organisation. Die Kunst, Experten zu managen [The University as an Organisation. The Art of Managing Experts]*,[1] are intrinsically motivated luminaries who strive for perfectionism in teaching and research; they identify more with their own field than with their employer. A transformation that aims to jointly develop new structures and new specific topics is complex. The more persons with different experiences and backgrounds are involved, the more challenging the transformation. Moreover, a multilayered organisation like the Lucerne School of Art and Design experiences changes in structure and content at the same time. This form of simultaneity demands from all leadership a high tolerance for ambiguity, as it is called perhaps somewhat euphemistically in books on management.[2] For every decision, in turn, has consequences on which other priorities are set.

... convincing executives and their teams to pursue goals shared across the university's disciplinary boundaries is far from easy.

Of course, these processes took place with a good deal of friction. For the question as to who ultimately had the power to define the contents and the structures gave occasion for various disputes. Here the participants invoked their own attitudes and discursive positions. They acted as

«carriers for the historical development of any field of thought, as well as for the given stock of knowledge and level of culture», which Ludwik Fleck called a «thought collective».[3] A side effect of these discussions was the emergence of deeper mutual understanding for the work of ‹the others›; a space was created in which those responsible for the different fields of study and the lecturers cooperated across fields and disciplines, working together nimbly and sustainably. The various thought and action collectives related to each other, clarifying the differences in their use of semantics, procedures and attitudes.

The result of these discussions is, on the one hand, a broadly based, comprehensive range of modules, from which students can acquire skills for the future in the fields of Digitality, Explorative Research, Creative Entrepreneurship, Critical Thinking, Materials & Practice, Sustainability and Self-empowerment & Engagement. On the other hand, the heads of programmes, those responsible for the interdisciplinary areas, and the external partners also shaped new forms of cooperation, which constitute a significant component in the development of the institutional culture. And within these new structures a further space for potential contents has emerged, which can be adapted with agility to the urgent topics of the present and the future.

The new curriculum was launched in autumn 2022. The change process has concluded. Performing this work alongside our demanding everyday business was extraordinarily challenging, exhausting, and marked by more than a few conflicts.

A look at the transformation process reveals one primary aspect: The culture of an organisation is decisive for the success of such a development. Every organisation has «shadowed places in which nothing can be seen and no questions asked»,[4] as Mary Douglas put it so eloquently. Its members «interact with each other at a distance, in a break»,[5] remaining ensnared in their own thought collectives, which influence the way they perceive and interpret reality.[6] If the participants do not succeed in engaging with other perspectives and competencies, no genuine discourse can emerge.

Accordingly, communication between the different thought collectives is demanding, for supposedly clear semantics in this communication must be checked for their hidden and often implicit meanings in order to make understanding at all possible. In such processes, communication is everything.

… curriculum development is conceived as an open-ended process, which requires everyone involved to take an explorative approach.

As is allowing controversies. And also divergences. And claims to power.

If an organisation manages to gain enough trust from all participants in the process – and in management as well – to conduct these disputes and to risk propagating what is critical, perhaps even unusual in the eyes of the others, it achieves innovative results that benefit the organisation and ultimately, primarily the students. When this succeeds, «the instituted community» no longer blocks «personal curiosity» and no longer «heroically imposes certainty on uncertainty».[7]

What is decisive is that curriculum development is conceived as an open-ended process, which requires everyone involved to take an explorative approach. This way the educational institution learns – disciplinarily, interdisciplinarily, transdisciplinarily – initiated by frictions, dissonances and even antagonisms. And this yields the potential for a sustainable transformation in the institutional training programmes and in its culture.

The result of the curriculum development is impressive – as this *Nummer* shows: The various articles attest to the authors' different perspectives and reflections on the curriculum development. The seven theses for the education of the future are just the beginning. There is the look backward and the justifications for a transformation felt to be urgent. The connection between praxis and theory receives special attention, as do the future competencies digitality and sustainability. And finally, there is the important insight that without the contributions of the administration and the process management, such a sustainable transformation would scarcely have been possible.

The result of the curriculum development is impressive…

1 Ada Pellert, *Die Universität als Organisation. Die Kunst, Experten zu managen*, Vienna 1999.

2 Stephanie Kaudela-Baum, Jacqueline Holzer, Pierre-Yves Kocher, *Innovation Leadership. Führung zwischen Freiheit und Norm*, Wiesbaden 2014, p. 155.

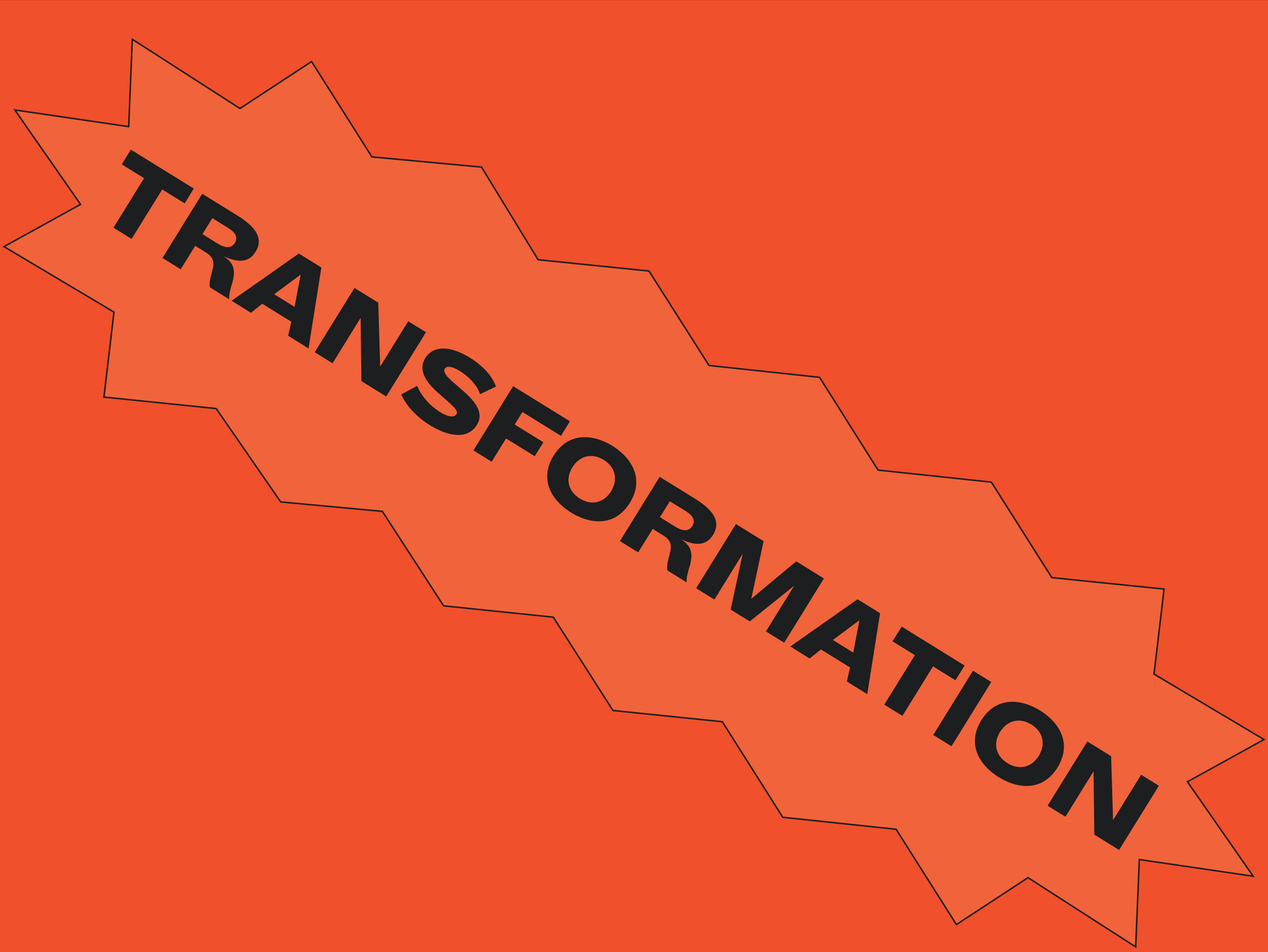
3 Ludwik Fleck, *Genesis and Development of a Scientific Fact* [1935], Chicago 1979, p. 39.

4 Mary Douglas, *How Institutions Think*, New York, 1986, p. 69.

5 Silvia Henke, Dieter Mersch, Nicolaj von der Meulen, Thomas Strässle and Jörg Wiesel, *Manifesto of Artistic Research. A Defense Against Its Advocates*, Zurich 2020, p. 25, doi:10.4472/9783035802665.

6 Fleck 1979, p. 99.

7 Douglas 1986, p. 102.


TRANSFORMATION

Adapting to Change in Order to Shape the World

Gabriela Christen

↑ **Fig. 1 Student in the IDA module «Now:Print!», 2021, photographed by Thi My Lien Nguyen**

Today, promise and menace are in the air: The world is changing! The buzzwords accompanying these changes are familiar: digital transformation, the fourth industrial revolution, the end of humanism. The digital transformation is throwing our societies, communications and politics into disorder, it is standardising and centralising processes in society, while at the same time granting us access to previously unimagined knowledge in the global context. Artificial intelligence and robotics promise unimagined possibilities in the development and production of all technologies and goods – and potentially even human beings. After three hundred years of striving for enlightenment by empowering people, through democracy as a participative form of government for all, and a world order oriented on ethical values and human rights, currently we are nevertheless confronted with a geopolitical situation and individual politicians who make a mockery of all humanist values every day for the sake of nationalism and protectionism. We observe how national and territorial interests attempt to destroy a country like Ukraine. And we realise how fragile our reality becomes in a Europe of education and culture when violence prevails over reason and even neutral states like Switzerland call to arms. We attempt to reorient, even centre ourselves in the times after Corona, and we are only beginning to analyse the pandemic's effects on us, and on culture and its various spheres.

> We can make guesses now about what the future will look like, but do not know what is coming.

We can make guesses now about what the future will look like, but do not know what is coming. We know only that we are in the midst of a major

transformation process. In recent years the world has been described as VUCA – volatile, uncertain, complex and ambivalent –, all terms that are insufficiently drastic for today's challenges, as the unknown future these days is sometimes dangerous; it forces us to take a stand and is often simply absurd.

What do arts do in this situation? They do what they have always done: They mirror and reflect the world and supply the diagnosis of their time, they reflect it with their means, show the changeability of the world and shape its future. A difficult challenge for designers, filmmakers and artists, but also for the institutions that accompany and train young people along their creative educational paths: the universities for arts and design. What young creative people already see as a challenge, but also as pleasure, namely shaping answers to questions that are disturbing and sometimes even devoid of meaning, in order to try out solutions or new possibilities of experience or thinking, is more difficult for large, slow organisations like universities. But there is no choice, for they are the platforms for young artists and designers, they must offer spaces in which their students can try out the risks to which they will subject their audience, and they function as sites for experimenting with and researching about what will be. This obligation to permanently develop and question their own activities is laborious for the administration and the lecturers, it is a supplementary task on top of the individual coaching of young talent, and it requires a great deal of time. What is more, it bears a name that does not *per se* inspire and kindle enthusiasm for this work of the future: curriculum development. Curriculum planning means simply the effective organisation of teaching all the way to graduation. The curriculum varies from one department to the next, from one university to the next. But one dimension is certain in all curriculum development: teaching is treated as an art or a craft like any other, designed to be meaningful and coherent, and therefore comprehensible and helpful for students on the way to their future activities.

↑ **Fig. 2 Student in the IDA module «The Immersive Laboratory», 2022, photographed by Thi My Lien Nguyen**

Curriculum planning means simply the effective organisation of teaching all the way to graduation.

But how is a good curriculum created? A diagnosis and an analysis of the past, present and future are required to offer a good education for creatives.

...teaching is treated as an art or a craft like any other...

Let us start with the past and the question as to why this kind of university was created: When the first precursor institutions of today's universities for arts and design emerged in the 19th century, the diagnosis was clear: Industrialisation had changed the way human beings related to the world, to labour, to time and to their fellow humans. Serial work on normed products that could be distributed efficiently over great distances with new means of transport had replaced the work of craftspeople with their guilds as well as many handicrafts. The skills needed to create unique objects of beauty and value were on the verge of extinction. But these were still in demand on majestic and religious sites, and for the design of the locations and objects of early tourism. The schools of arts and crafts successfully trained artists who decorated churches, designed palaces, painted the walls of the cities and paintings for the newly emerging bourgeoisie. As these institutions were strongly driven by the arts and crafts, the competencies necessary for future tasks were clear.

The skills needed to create unique objects of beauty and value were on the verge of extinction.

Later models like the Bauhaus sought to unite the crafts with spirituality and create sites with

↑ **Fig. 3**
Fig. 4 Students in the IDA module «You are here», 2022, photographed by Thi My Lien Nguyen

the atmosphere to transport souls into higher spheres, in order to satisfy the human need for a better and more beautiful world.

Yet, in Switzerland especially, where the schools of arts and crafts were not upgraded to academies but remained part of the specialised worlds of training for the professions, over time these institutions reliably produced the draughtspeople, graphic artists, and textile designers needed by the country with its high demands on a meticulous, high-quality and often also technophile world. Over many years, sound textbooks, a great deal of practice and practical experience, and a strong ethos of teaching and training guaranteed the success of such specialised schools. Up until the turn of the millennium, training in Lucerne was especially strongly rooted in this tradition, with a rather old-fashioned foundation in craft skills.

> The four-year curricula had to be shrunk to a three-year Bachelor's programme.

This world changed fundamentally only with the Bologna Process, which not only unified and standardised the European education area, but also transformed schools of arts and crafts into universities. This had major effects on the curricula for design, film and fine arts. The four-year curricula had to be shrunk to a three-year Bachelor's programme. Not an easy task, since the Master's programmes were to follow only years later. From my perspective, the Bologna Process brought two new insights: These guidelines for study programmes, determined by political negotiation, were a virulent demonstration of how education and worldview, research and European competition can be changed overnight.

> New courses offered in the coming years will focus on sustainability

Moreover, study programmes and research became internationally comparable, and henceforth have to measure up to European and global benchmarks and contend with competition. And curriculum development became a collective science or art.

How did we at the Lucerne School of Art and Design deal with these changes in the years after the Bologna Process was introduced? The relation to transformation and acceptance of change has grown strongly, along with the university itself, which has expanded and changed over the last decade. Our nice little school has become one of the largest educational institutions in Switzerland for design, film and fine arts. A dynamics of permanent adaptation to developments not only in design and art, but also in technology, society and business is now a matter of course, as was formulated in our strategy for 2016–2019: «The Lucerne School of Art and Design is developing in sync with the digital transformation in society, business and culture. We are living in an age of change and seeking sustainable solutions for the world of tomorrow.» This strategy was forward-looking, yet it also described developments that had been underway within the university for some time already. Since 2012 the School of Art and Design had tracked labour markets, the needs of students, technological and aesthetic developments, and devised new courses of study in rapid succession: From photography in the societal context (Camera Arts), to the joint training of digital engineers and designers in collaboration with the Lucerne School of Computer Science and Information Technology (Digital Ideation), the design of analogue and digital spaces (Spatial Design) and the creative approach to data (Data Design & Art), the university pursued a strategy of

permanent development and positioning. These new courses of study, all of which combine technology and creativity, were pursued further in the Master's programmes as well. New courses offered in the coming years will focus on sustainability, an existential topic for young people, which will serve as the basis and goal of all education for all programmes.

Diligent care in dealing with one's own origins remains key, and constitutes the DNA of Lucerne's educational programmes with their dual focus on digital technologies and analogue workshop skills. I am deeply convinced that bringing together diverse and even contradictory worlds, «the chance meeting on a dissecting-table of a sewing-machine and an umbrella»,[1] is the way to create locations where magic sparks are still produced and fly, in the form of poetic and creative processes that surprise and enchant. Thus, combining analogue traditions and craft knowledge with the digital know-how and media competencies of technology-based training was also the philosophical guide and recipe for success for the conversion and addition to the former textile factory which houses the new Vicosistadt campus of the Lucerne University of Applied Sciences and Arts in Emmenbrücke.

The curriculum development 2018–2022 picked up on all of these impulses, so now the hardware of the building at 745 Viscosistadt is quasi having software installed. And this software is in a class of its own: The softest and most central competency it contains is collaboration, the exchange between students and teachers with their competencies from different disciplines, in order to work together on the future and the beauty of upcoming worlds.

↓ **Fig. 5 Student in the textile design studio, 2019, photographed by Özlem Petri**

1 Comte de Lautréamont, *Maldoror & The Complete Works of the Comte de Lautréamont*, Cambridge, MA 1998, p. 193.

The Beauty of Snap-Action Mechanisms

A Recipe for a Curriculum Sustaining Curious Students

Karina Kaindl

When a snap-action mechanism works effectively, a relatively small movement at the actuator button produces a relatively large, high-velocity movement at the electrical contacts – regardless of the actuation speed. Ideally, the same happens with a profoundly researched, astutely designed and skilfully communicated curriculum that gains momentum twofold: students seek and will thrive in inspiring and challenging degree programmes and beyond; while margins of change, often-overlooked details, generate an intriguing transformative capacity rather than big ideas and ‹ultimate solutions›. What ingredients do we need to achieve this?

Institutions of higher education must continuously review their existing curricula and develop new offerings in order to adapt to transforming technological, societal and economic conditions.[1] The apparent drivers for designing study programmes for the long term are digital transformation, with its impacts on the worlds of work and life, as well as the guidelines of a national, albeit internationally competing, educational system. Particular challenges for the design of future-oriented curricula, according to the *Hochschulforum Digitalisierung*,[2] are the aspects *agility and sustainability*, *innovative teaching and accreditation*, *development of value-attitude* and *meaningful participation in society*. The forum further encourages institutions to develop courses that are geared to results rather than disciplines or contents, and thus based on competencies, and to orient their graduates' competence profiles on future skills.[3] This orientation on results and competencies, which must be updated constantly, is also one of the cornerstones of the Bologna Process.[4] In combination with student-centred learning, a further essential element of the Bologna reform, independence and individual responsibilities of the students are weighted more heavily in training, making them co-designers of their academic track.[5]

how much disciplinary instruction should a curriculum contain, and which parts are interdisciplinary or transdisciplinary or multidisciplinary?

So how to proceed if the above-mentioned premises are to be firmly integrated into the development of a curriculum? The first step is to clarify the following basic decision points which affect every study model: how much disciplinary instruction should a curriculum contain, and which parts are interdisciplinary or transdisciplinary or multidisciplinary? To what degree can students customise the contents of their training and decide what to learn when, what stipulations must they follow? How are different forms of teaching, like teacher-centred teaching, seminars, and project work, related to each other? How high is the share of self-study in comparison to monitored or supervised study? How is a curriculum designed in terms of praxis and theory – discussion of this question is especially lively and controversial at universities and colleges of art and design. Should studies be structured into majors and minors? Which competencies serve to orient a programme of study, and are these sustainable? How are the content and structure of curricula designed which prepare students as well as possible for what is unknown and uncertain?

How are different forms of teaching, like teacher-centred teaching, seminars, and project work, related to each other?

The Lucerne School of Art and Design addressed these questions in a process that lasted several years. The last development of the school's curriculum concentrated on adjustments within the individual fields of study. The current process focused on multidisciplinary course offerings, revising their orientation and structure. In order to

sharpen the profile of this extensive area, an in-depth examination of the existing course offerings was complemented by incorporating findings from international studies, competitor analyses, evaluations of surveys of various stakeholders, as well as a plethora of internal workshops and individual interviews. The analysis of all these inputs revealed several fields of action:

- How do we interpret *future skills*?
- What competencies that are demanded in the working world are taught in the multidisciplinary courses? Which of these do we regard as fixed, which can be combined in a customised area of electives and mandatory courses?
- Which interweavings of theory and praxis instruction do we consider meaningful? How can the multidisciplinary area supplement the disciplines as constructively as possible?
- How can we ensure that study contents with potential synergies are recognised and used beyond disciplinary boundaries?
- How should the multidisciplinary area be designed in terms of content orientation, disciplines and quantity structure?
- How do we guarantee a «red thread» through a multiplicity of very different modules in the multidisciplinary area?

The above questions led to an iterative process which yielded the consolidation of the entire multidisciplinary area and the creation of the +++Modules. The process had several goals: The curriculum was to provide insight into interdisciplinary working methods and offer students opportunities to deal with disciplines outside their fields. In essence, students are motivated to transfer contents, ways of thinking and working, options for action and subject cultures to their future worlds of work and life in a deliberate way. On the level of content, globally relevant subjects are contextualized and applied to individual or local perspectives. Conversely, bottom-up approaches become relevant, in which the students derive connections to overarching questions from their own experiences and perceptions. Moreover, the +++Modules have a focus on modes of collaboration across and beyond the boundaries of disciplines and academic cohorts. Reflection and discourse beyond the written form are crucial in order to teach researching work with texts and alternative media.

The disciplines have been developing competence-oriented curricula for a long time. Therefore, a similar approach was adopted for the +++Modules as well, which affords various advantages: On the one hand, the formulation of fields of competence allows more in-depth considerations about the existing and desired focus of a course; on the other hand, modules can be bundled thematically and study emphases clearly communicated to prospective students. Accordingly, students are well-informed and can put together parts of their course of study themselves, as long as there is a comprehensive selection of electives on offer. Seven competences were determined: Digitality, Explorative Research, Creative Entrepreneurship, Critical Thinking, Materials & Practice, Sustainability and Self-empowerment & Engagement. They will have a major impact on training at the Lucerne School of Art and Design in the future.

Developing a curriculum is a long journey full of ups and downs. The following 12 essentials had a positive impact on our process and led to a broadly-based outcome:

1. The goals of this curriculum development were not set by the school administration from the outset but were a component of the discursive process in various committees.
2. The inclusion of student and alumni/ae voices in the conversation about curriculum development was established and enhanced over years. Working together with the student union, holding workshops with interested students, analysing student and alumni/ae surveys and the fixed involvement of students in various commissions at the school has turned out to be very conducive for producing ideas about how to design the curricula.
3. The development of a curriculum does not have to start from scratch. For the existing competencies and courses offered by one school or faculty to be used effectively, a thorough, comprehensive inventory of the current situation is essential, during which it must be asked why things are done the way they are, and why each course or programme is being offered. At the same time, this overview avoids overlapping course catalogues and ‹poaching› in other competence areas.
4. The heads of all programmes were interviewed about the existing curricula, possible adjustments, problem fields and their ideal goals. This is time-consuming, but imperative in order to determine the status quo and start a process oriented on participation. It also made clear that the study programmes were not sufficiently familiar with each other’s curricula to detect and exploit potential synergies.
5. Not only the contents of the programme had to be changed – far-reaching organisational and administrative adjustments were also needed. These affected the semester structure

The inclusion of student and alumni/ae voices in the conversation about curriculum development was established and enhanced over years.

...the +++Modules have a focus on modes of collaboration across and beyond the boundaries of disciplines and academic cohorts.

or rhythm of modules, the determination of time windows for split modules, as well as opening up selected courses for students from other programmes. Through the restructuring of all BA curricula into modules of 3, 6, 9 and 12 ECTS, all disciplines share the same windows and are thus increasingly able to work across disciplines.

6. The multidisciplinary area consists of mandatory and elective modules. The seven competence fields bring an ordered structure to the diverse course offerings, communicate the module catalogue to the outside world, and if needed, can be reconfigured each semester. This allows students to specialise or learn a wide spectrum of competencies. On the one hand, this means that students can select emphases that are flexible and less formalised; on the other hand, future students do not have to commit themselves to certain emphases before starting university and adhere to them until they complete the programme. This also offers the school the opportunity to react promptly to societal, institutional and fiscal changes and needs. These are three major advantages over established, rigid major-minor systems.

The seven competence fields bring an ordered structure to the diverse course offerings...

7. The +++Modules allow maximum flexibility not only in terms of content, but also temporally and methodologically: In addition to the completely free selection of competence fields, various time tracks for different courses are planned for both before and during the regular semester, and as a block or weekly structure in the lunch or evening programme, so that students can combine them according to their personal interests and possibilities. At the same time, the heterogeneity of the students and their educational biographies are accounted for, as the entire field covers a diverse spectrum ranging from workshop instruction, language courses, scientific methodology modules, to institutional participation options.
8. To communicate the module catalogue as clearly as possible, each +++Module is labelled with no more than two of the seven competence fields. Moreover, the entire range of modules can be viewed internally and also by potential students or the public within a module directory.
9. The self-study period was shifted from the end of the semester into within the given modules. This is just as advantageous for didactic reasons as it is for personal development. What is more, the structures become more transparent, since course assessments are provided directly at the end of the module. This also makes it easier to include guest instructors.
10. Greater freedom of and opportunity for choice tend to lead to initial uncertainty. Students must be cushioned against this through a central, easily accessible student advising centre that informs, advises, and answers questions about transferring credits.
11. The disciplines are already in intensive contact with relevant praxis partners. In the future, this exchange is to be systematised, and the findings and the measures derived from it used to continually adjust the curricula and the multidisciplinary area.
12. Developing a curriculum is a process of change in which resources are reallocated, which inevitably generates disquiet and irritation. The more transparent and participative the process is, by clearly indicating the planned redistributions, offering opportunities to participate in the process, and demonstrating a willingness to compromise, the greater the acceptance of the staff. Entering into a continuous, open-ended dialogue is absolutely imperative.

1 Cf. John Harpur, *Innovation, Profit and the Common Good in Higher Education. The New Alchemy.* New York 2014.

2 https://hochschulforumdigitalisierung.de/en/themen/curriculum-40 (retrieved 1 Sept 2022).

3 Cf. Arbeitsgruppe Curriculum 4.0, *Curriculumsentwicklung und Kompetenzen für das digitale Zeitalter – Thesen und Empfehlungen der AG Curriculum 4.0 des Hochschulforum Digitalisierung,* Hochschulforum Digitalisierung, Arbeitspapier Nr. 39, Berlin 2018.

4 Cf. Rektorenkonferenz der Fachhochschulen der Schweiz KFH, *Best Practice KFH. Konzeption modularisierter Bachelor- und Masterstudiengänge*, Bern 2011.

5 Cf. Manja Klemenčič, «Successful Design of Student-Centered Learning and Teaching (SCLT) Ecosystems in the European Higher Education Area», in: *Bologna Process Beyond 2020: Fundamental Values of the EHEA. Proceedings of the 1999–2019 Bologna Process Anniversary Conference,* Bologna, 24–25 June 2019, eds. Sijbolt Noorda, Peter Scott and Martina Vukasovic, Bologna 2020, pp. 43–60.

Administrative Implementation of the Curricula

Interview with Ibrahim Demirci, Head of the Central Secretariat

Nicole Rickli

The programme heads and the vice dean, who managed the development of the new curricula and accompanied it with his team, experienced a creative process with countless workshops, intensive conversations and lively, sometimes even heated discussions. In contrast to this creative process, the administration had to work with the corset of the university administration software Evento and its strict guidelines and possibilities for depicting the curricula. Ibrahim Demirci, head of the central secretariat of the Lucerne School of Art and Design, explains in this interview how the administration mastered the implementation of the new curricula with a great deal of effort and – despite strict guidelines – a creative approach.

Nicole Rickli: When did you first hear about the curriculum development?

In December 2021 we reached the ‹point of no return› as we prepared and implemented the course plan for 2022.

Ibrahim Demirci: During my initial training phase, my predecessor gave me all the information she had at the time about the curriculum development. That would have been in April 2021.

Nicole Rickli: What did you think of when you heard ‹curriculum development›?

Ibrahim Demirci: So early on, I didn’t have much of an idea what it meant. Those staff members who had a better idea of what the term entailed said over and again that something big was coming the administration’s way. My priorities at the time, however, were managing the day-to-day business and learning the job. Even at the various meetings where the

...something big was coming the administration’s way.

topic of curriculum development came up, initially I could not really imagine what it entailed. It was a classic case of ‹learning by doing›; a lot of it only became clear when we got down to business.

Nicole Rickli: How did you get an overview of the upcoming tasks?

Ibrahim Demirci: It was a tremendous challenge for Janine Vogel and me (responsible for Evento), because we had not worked on the project from the outset. I tried to collect as much information as possible. For a long time, it was not clear to me whether the timetable was really feasible; I always had the impression that the launch would be delayed again. Then, in October 2021, all kinds of issues were suddenly cleared up, for instance, about the new +++Modules. In December 2021 we reached the ‹point of no return› as we prepared and implemented the course plan for 2022. This was the first time we were able to assess what had to be done when. With that we were able to develop a concrete annual plan with several milestones that gave us a rough overview. From early 2022 on I had a good feeling that the administration would be up to the tasks.

From the beginning, I saw the project as an opportunity.

Nicole Rickli: How did you prepare your team for the challenges?

Ibrahim Demirci: From the beginning, I saw the project as an opportunity. With this positive attitude I was able to motivate the team. I pointed out improvements and worked with the team to scrutinise existing processes and design them to be more efficient.

It was certainly also important that they received the right information at the right times. The staff was regularly kept up to date, and once all their questions had been cleared up, they were briefed comprehensively by Karina Kaindl in March 2022. In June they received another refresher. This targeted information also gave the team the security that they would find out everything they needed to know for their work in time.

Nicole Rickli: What concrete preparations were you and your team able to make?

Ibrahim Demirci: Since I only started my position as head of the central secretariat on 1 April 2021, I came into the project quite late. It certainly would have been nice if I had been on board earlier, as it might have been possible to simplify a few processes. But ultimately, I was in the right place at the right time. However, the concrete preparations mostly involved the mental willingness of the team to engage with the curriculum development.

…the concrete preparations mostly involved the mental willingness of the team to engage with the curriculum development.

Nicole Rickli: What tasks did the administration have to handle?

Ibrahim Demirci: The administration had to enter over 400 new modules and module titles in the university administration software Evento. For each of these modules the new module descriptions had to be filed, and then the modules combined in the module directory.

A new registration logic was needed for the transdisciplinary +++Modules and the corresponding communication for registration.

After the grades were entered for spring semester 2022, we had one month to check the ECTS credits of 509 students and provide them with a transfer overview so that they knew what courses they still had to take and how they could register accordingly. Then we had to transfer all 509 students to the new academic years. That was quite a challenge! Without the support of the entire team, we would not have been able to finish by our deadline of mid-August.

Parallel to this we had to model the programme structure in the database and also think about how the report cards, diplomas, certificates and other reports

with the new curricula should look. These new reports are created by the central IT services team in close collaboration with Janine and myself.

Nicole Rickli: Which tasks were the most complicated?

Ibrahim Demirci: The ones we had not expected at all, of course. Besides the curriculum development for the Bachelor's programmes, there was an informal development of the Master's programmes, which no one in the administration had expected. The administration also had plenty of questions because the inputs were not clear enough. Such queries are always cumbersome and take a lot of time. Incidentally, a huge question mark will remain until 15 October [2022]. By then everything must be completed, and all study credits transferred. Only then will we see whether there are still errors in the system.

The administration also had plenty of questions because the inputs were not clear enough.

Nicole Rickli: How did your team deal with the challenge?

Ibrahim Demirci: With lots of humour! I am convinced that the whole thing was mastered so well only because the team worked so well together. Janine and I received support from the entire team. But it was also affirmation for us that we can work well as a team in the administration. That makes us confident that we can handle challenges in the future. Of course, we had to set priorities and sometimes leave less urgent work undone.

Nicole Rickli: What support did your team receive?

Ibrahim Demirci: First of all, certainly, support from Orlando Budelacci, Karina Kaindl and Elke Rentemeister regarding information on the curriculum development. Then the support of Birk Weiberg was invaluable, of course, and not only because he created the module directory and countless algorithms for Evento, but also due to his participation in discussions and the constructive search for solutions. Also important was the backing of school management, and above all Jacqueline Holzer. Jacqueline herself took care to ensure that the deadlines for grade submissions were met, which was tremendously helpful for the team. We also found it extremely valuable that we were always able to come to the project heads with any open questions.

Nicole Rickli: Were there any surprises?

Ibrahim Demirci: The deadline for submission of the module descriptions was not met, which led to considerably more work for the administration. But actually, that was not so surprising – since the administration expected this might happen, we had plans B, C and D ‹up our sleeve› and were thus fairly relaxed about managing the extra work.

There were also a few surprises with Evento, more specifically, with the dependencies within Evento. The connections between the system technologies generally became apparent only when changes were entered. The administrative consequences of the curriculum development will certainly keep us busy for at least another academic year.

... since the administration expected this might happen, we had plans B, C and D ‹up our sleeve›...

May You Live in Interesting Times

Against a Discourse of Loss and Crisis

Elke Rentemeister

The expression that lends this article its title has found widespread use in pop culture; its origins are infinitely older, albeit apocryphal. It is usually applied to characterise a relationship between tranquillity and its disturbances that is ambivalent at best. In this article, I suggest a literal, not ironic reading, which takes interesting times to be an opportunity for change and innovation. From such a perspective, I explore the impact of crises on the development of curricula and the institutions that teach them.

Educational institutions are affected by the same global developments and crises as every other part of the social system. National and international events and significant ecological, economic and socio-political processes define the topics and competencies curricula must address. The most recent crisis, the war in Ukraine, the last one, the Corona virus, and the ones that have been around for a while, such as the effects of climate change, the consequences of technologisation and social, economic, national and international inequalities raise numerous questions and challenges. For the educational sector, those would be which adaptations to the content, method and structure of curricula are necessary to enable students to be resilient during crises and effect transformations themselves. These crises have devastating impacts on many people, of course; a flippant title and its intended reading are not meant to ignore or devalue this fact. But as we live in times of crises and uncertainty, we need to make them «an opportunity to reimagine our futures, to renew and adapt our institutions and to craft new stories about who we are and what we value.»[1] In the *Human Development Report* by the UN quoted above, Switzerland is currently ranked number one based on income and life expectancy. Without committing the logical fallacy of relative privation, this indicates that most of us living in Switzerland are watching from a privileged position at the margins of the crises, where our fundamental, physiological or security needs in a hierarchy of needs are still met. From a safe, stable position with extensive resources, it is possible to carefully develop new ideas and solutions rather than rushing to react. The question is whether this transformative potential is realised or will fizzle out due to early, saturated contentment. Uncertain, precarious situations could be a more vital driving force of radical innovation.

From a safe, stable position with extensive resources, it is possible to carefully develop new ideas and solutions rather than rushing to react.

Educational institutions are governed by political, legal, economic and social factors; their individual conditions design the shape and structures curricula can assume. J. R. Webster describes radical curriculum innovations as the result of external influences perpetuating themselves within educational institutions. An external crisis leads to an internal one, «Change is thus always the result of a specific set of historical circumstances.»[2] One key element of biological constructivism[3] and social systems theory[4] is the insistence that biological and social (or really, any) systems need to be able to deal with perturbations; they need to address and react to disruptions as a matter of survival. Educational institutions adapt by developing their curricula; while this might read as passive reactive so far, it can empower institutions and their members to design innovative

Educational institutions are affected by the same global developments and crises as every other part of the social system.

...biological and social (or really, any) systems need to be able to deal with perturbations...

transformations. The necessity for this has been part of the discourses of Educational Studies since at least the 1960s,[5] with the difficulties to affect said change and create the desired new possibilities constituting its ubiquitous counterpart, since «most educational institutions remain obstinately in a steady state».[6] It is probably no coincidence that student protests were taking place in many countries around the same time, addressing social, political, or legal issues. In his famous 1964 speech «Bodies Upon the Gears», Mario Savio calls for a disruption, stopping the machine – in this case, the apparatus of the University of California, Berkeley – as a metaphor for enforcing change. The latest crises can be considered levers or sand in the gears. As a result of the war in Ukraine, new possibilities for international students to live, study, and work in and around the Lucerne University of Applied Sciences and Arts have been opened, independent of earlier linguistic, regulatory, or economic barriers. As a result of the Corona virus, digitalisation was driven forward, teaching environments were adapted, and online or hybrid teaching forms were established and evaluated. Radical transformations took place at maximum speed while health restrictions and social distancing turned what used to be a classroom into a constantly shifting and evolving concept. This undoubtedly resulted in a deepening of pre-existent conditions of the educational system, making these unmistakable and highly visible.[7] It led to long overdue evaluations and reassessments as well. Before, the most recent Communiqués of the *European Higher Education Area* were already emphasising the need to support underrepresented or marginalised groups and promote educational equity.[8] Reorganising institutional structures at the school and university levels was a lengthy process, however. Now, the deficits in digitisation in the educational and social system made inequalities painfully visible. The exclusion of certain groups became obvious on all educational levels, starting at preschool. Some children couldn't attend the digital classrooms or do their homework due to a lack of technical equipment. At the same time, some education offers became more accessible thanks to moving online, and alternative teaching methods like the flipped classroom were used more widely. The crisis constituted «an invitation to educators and learners alike to consider possible alternatives and affordances of a curriculum responsive to the poetic and ever-changing complexities of a life lived today and, in the days to come.»[9] The question is how to develop the conditions in educational institutions and the competencies of all their members such that one-off changes as rapid responses to crises are encouraged and can generate lasting improvements.

Building and developing students' capacity to act is at the heart of competencies the OECD deems necessary for 2030.

Students should develop an understanding of the roles they can play in and the potential they can bring to change processes.

... the deficits in digitisation in the educational and social system made inequalities painfully visible.

Educational institutions need to evolve and question their assumptions, positions and processes if we consider change to be not only a constant necessity but an opportunity. They must continuously analyse future critical elements of education and society. What are the requirements and affordances of curricula today that might exceed subject-specific knowledge but prepare students for the unknown? Based on the recommendations of the *OECD Learning Compass*[10] and the UNESCO report *The Futures of Learning 2*,[11] we suggest enhancing the groundwork laid during the Bologna Process with its shift from knowledge to competencies by incorporating agency. Building and developing students' capacity to act is at the heart of competencies the OECD deems necessary for 2030. Students need to engage with global trends and issues and not only acquire knowledge and skills but also learn how to apply them, as well as attitudes, values and qualities like empathy to complex problems and situations of uncertainty. Students should develop an understanding of the roles they can play in and the potential they can bring to change processes. Different types of capacities for action are conceivable: *Moral agency* supports students in making decisions and recognising the rights and needs of others. *Social agency* requires understanding their rights and responsibilities towards society. To contribute to the local, national or global economy, they identify and seize opportunities and thus *economic agency*. They create new value through their ability to use their imagination and innovation as *creative agency*. The OECD describes three core foundations as particularly important for this agency: cognitive abilities, which includes literacy and numeracy; health, such as mental and physical health and well-being; and social and emotional foundations, which include ethics, digital and data literacy.[12] Within the latest curriculum development, we implemented respective subjects and learning methods in the study programme. New competence strands have been created around Digitality, Explorative Research, Creative Entrepreneurship, Critical Thinking, Materials & Practice, Sustainability and Self-empowerment & Engagement. Many of the structural changes made seem small, but will hopefully still prove successful in emancipating students and making them active co-creators of their learning path: Self-study time has

been integrated into the modules instead of tacked on at the end of the semester. As a result, more time is available for the individual modules, in which students can work on their own responsibility, completely independently or with guidance. The students can select from more options in a more extensive and diverse interdisciplinary area and decide whether they want to deepen or broaden their skills. In the interdisciplinary area and the new, open subject modules, they get to know other fields of study and their various methods and thereby gain new perspectives on their work and subject and collaborate with each other in different settings. Work in the student representative body, the SUMO, is credited for the study programmes, and students are invited to join diverse panels and committees to participate in strategic department projects, thereby acknowledging the relevance of student agency.

The students can select from more options in a more extensive and diverse interdisciplinary area and decide whether they want to deepen or broaden their skills.

In traditional teaching models, knowledge is imparted through instruction and assessment. In systems where student agency is central, faculty and students become co-creators in the teaching and learning process to address complex challenges collectively. During times of uncertainty and crises, when it is tempting to mourn, cling to the known or make the smallest of unavoidable adaptations, such an agency could realise radical responses, effective in the short and long term.

In systems where student agency is central, faculty and students become co-creators in the teaching and learning process to address complex challenges collectively.

1 UNDP (United Nations Development Programme), *Human Development Report 2021–22: Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World*, New York 2022, https://hdr.undp.org/content/human-development-report-2021–22 (retrieved 26 Sept 2022).

2 J. R. Webster, «Curriculum Change and ‹Crisis›», in: *British Journal of Educational Studies* 24 (1976), no. 3, pp. 203–218, doi:10.1080/00071005.1976.9973469.

3 Humberto R. Maturana and Francisco J. Varela, *The Tree of Knowledge: The Biological Roots of Human Understanding* [1987], Boston 2008.

4 Niklas Luhmann, *Social Systems* [1984], Stanford 1995.

5 Cf. Eric Hoyle, «How Does the Curriculum Change? I. A Proposal for Inquiries», in: *Journal of Curriculum Studies* 1 (1969), no. 2, pp. 132–141, doi:10.1080/0022027690010204; Webster 1976.

6 Webster 1976, p. 203.

7 Cf. Patrick Charland, Marion Deslandes Martineau, Tegwen Gadais, Olivier Arvisais, Nadia Turgeon, Valerie Vinuesa and Stéphane Cyr, «Curriculum Response to the Crisis», in: *Prospects* 51 (2021), pp. 313–330, doi:10.1007/s11125-020-09526-6.

8 Cf. EHEA, «Rome Ministerial Communiqué 2018» and «Paris Communiqué 2020», http://ehea.info/page-ministerial-declarations-and-communiques (retrieved 16 Aug 2022).

9 Darcy Courtland, «Reimagining a Curriculum in Crisis», in: *Prospects* (2021), no page number, doi:10.1007/s11125-021-09562-w.

10 Cf. OECD, *OECD Future of Education and Skills 2030*, Paris 2019.

11 Cynthia L. Scott, «The Futures of Learning 2: What Kind of Learning for the 21st Century?», in: *UNESCO Education Research and Foresight* (2015), https://unesdoc.unesco.org/ark:/48223/pf0000242996 (retrieved 16 Aug 2022).

12 Cf. OECD 2019.

PRAXIS & THEORY

Bachelor Programmes of the Future

Between Artistic and Design Skills and Developing an Individual Profile

Jacqueline Holzer

The head of the Graphic Design programme, Monika Gold, the head of the Object Design programme, Christoph Schindler, and the co-head of the Bachelor's programme for Fine Arts and Art & Design Education, San Keller, discuss how they manage to impart professional expertise and competencies in the kinds of knowledge they use and the way they collaborate. The goal of all three programmes is for the students to perceptibly (co-)create and artistically and experimentally challenge a sustainable society.

Jacqueline Holzer: Let's start at the beginning: What kind of qualifications do students need in order to be accepted to your programmes?

San Keller: We want to know what the students' motivations are. Whether they are ready to take risks. We determine whether our Bachelor's programme would be a useful step for their further development. At the 24h admission day we talk with them to clarify our mutual expectations and demands. And we would also be so daring as to recommend a different course of study that might be more appropriate.

We want to know what the students' motivations are. Whether they are ready to take risks.

Monika Gold: We have the most renowned experts in our admission procedure, design the best examination tasks, pose the most intelligent questions. But when we compare the Bachelor's projects our students submit three years later with the rankings from the admission procedures, it becomes clear: Even we make mistakes sometimes. An art academy in the US reportedly found out that students who entered a programme of study without a selection procedure caught up with the students who passed an admissions test in terms of their artistic and design skills within a year. Someday we could try to verify that here.

But when we compare the Bachelor's projects our students submit three years later with the rankings from the admission procedures, it becomes clear: Even we make mistakes sometimes.

Jacqueline Holzer: What criteria do you look at in the admission procedure?

Monika Gold: We demand high-quality works with creative density that express energy, their own groove. If someone stumbles along the surface and is not willing to dive into a task, and shows little interest in creative expression, that is a bad sign.

Christoph Schindler: Energy is the most important criterion. The students must explain convincingly why they are applying, where they want to go. At the same time an artistic aptitude is required, an attitude to culture and society, social competence. There must be a foundation upon which one can build.

We thrust them out into the world from day one, which may well be unpleasant and sometimes even overwhelming.

Jacqueline Holzer: What do the students learn in your programme?

Monika Gold: They learn to translate ambitious messages into interesting and contemporary creative solutions, and how to communicate visually, to convince with their creativity and their technical skill. And they also learn how to critique confidently.

Christoph Schindler: Students acquire various competences. They think and design products by recognising new needs, explore material cycles and even integrate theories of behavioural economics. They find out who they are, where they want to go and which individual fields they want to develop for their professional activity.

In the new curriculum we are also introducing the new modules «The Voice» and «The Pitch» in an attempt to bring the discourses that are important to students into the university...

San Keller: That last statement is true for us as well. Our instruction in the basics is more individualised: You can acquire knowledge about materials, but you do not have to if your path takes you in a different direction. Our training concentrates strongly on the context and the surroundings. We thrust them out into the world from day one, which may well be unpleasant and sometimes even overwhelming. They learn to make contact with the surroundings that interest them, and to find out how they react to this setting and how the setting reacts to them. ‹Trial and error› is our motto. Formats like the internship, the semester exchange and the *Werkschau* [graduation show] encourage this external orientation. In the new curriculum we are also introducing the new modules «The Voice» and «The Pitch» in an attempt to bring the discourses that are important to students into the university, and to encourage them to direct their projects outward and not simply rely on their resonance in the academic microcosmos. This is also a provocation for the students and instructors, not to understand the university to be merely a ‹safe space›.

Monika Gold: The basics cover explicit and implicit knowledge of the graphics field, and they also learn how to work independently. They must first gain confidence in working with various media and with visual communication. Second, they must have the ability to deal with the insecurity of the creative process. They learn this through practice and training with increasingly complex subjects. The instructors accompany them by offering constructive criticism (this is why the students learn to critique so well, which is not to say that they are able to take criticism endlessly).

The students accept these critiques and reflect upon them so that they learn to evaluate and grade themselves.

Jacqueline Holzer: What is the feedback you give your students based on?

That's what makes studying design so special: There are no obvious solutions, there are many possibilities, and many are right.

Christoph Schindler: The criteria are defined such that they do not demand a ready-made solution. That's what makes studying design so special: There are no obvious solutions, there are many possibilities, and many are right. There are as many paths as there are students. The objective here is also for students to develop their own personal profiles.

I come back to an approach I became familiar with during my study of architecture with Andreas Hild: Before the students start drafting anything, they formulate a thesis which they then prove with their work. This is different for each student.

San Keller: We do not give *one* feedback, but a variety of feedback from guests, instructors, peers in individual or group conferences. The students accept these critiques and reflect upon them so that they learn to evaluate and grade themselves. The goal is to use the proffered feedback for one's own work. Finding one's own position requires this confrontation with many voices and also the openness to develop oneself for every contingency.

...not sticking to specifications can allow something new to emerge.

Jacqueline Holzer: The Fine Arts Bachelor's programme has a freer training structure than the other subjects. Do the students in the design curriculum have enough freedoms to develop their own position?

Christoph Schindler: In the first semester there are clearly defined course contents with 80% live class instruction. The counterpart is the independent Bachelor's thesis, which represents the transition into professional life. The modules between create a transition from fact- and knowledge-based modules to the establishment of one's own profile.

Many at the university travel this path, but I did so alone, with all attendant insecurities. And this made me strong.

Monika Gold: Our programme is similar in this respect: The longer they study with us, the more freedoms they have. Yet there is difference from the product design curriculum. Our skills are very flexible, they can always be interpreted against the grain. At best, not sticking to specifications can allow something new to emerge.

Today I would probably go into marine biology, forestry or environmental science – and would have found my way to design from this foundation.

Jacqueline Holzer: With the benefit or your experience, what would you study today?

San Keller: I trained as a structural draughtsman and come from a milieu that did not afford me the security to do something on my own. Many at the university travel this path, but I did so alone, with all attendant insecurities. And this made me strong. When I do projects today, I organise an environment that encourages my thinking. Anyone who lands at an art university from the start is lucky.

Christoph Schindler: The times have changed a lot. Back when I studied, the challenge of climate change was known, but not yet so acute. Today I would probably go into marine biology, forestry or environmental science – and would have found my way to design from this foundation. Among our students we see that they often come after graduating with a different degree and come to us to link what they have learned with what they can learn from us.

Monika Gold: I have four professions, myself. The first is electrician (telecommunications specialist); I wouldn't want to do that training today. My father was a radio pioneer. I guess I chose that field for his sake. What I would certainly study again is graphic design, and design theory as well. And teaching is wonderful. Yet in all of these professional fields I spend most of my time working alone. That's why in my next life I would like to play in a band. I've just started playing the drums.

Jacqueline Holzer: Do you train lone wolves, or do the students learn to work cooperatively? How about the subject of authorship?

Christoph Schindler: The age of lone wolves is over.

Monika Gold: I have a slightly different take on this. Graphic design students must be able to perform their profession alone. The majority of the work is individual. Of course, for some jobs they work together in teams with and for contractors. At the university they spend a great deal of time with each other. When they are finished, it is difficult to say goodbye.

One has to be careful of taking positions that are so extreme that they overshoot the students and their employability.

San Keller: The concept of authorship is a central notion for us. The tradition in film of naming all of the participants and what they contributed in the closing credits has not become established in the fine arts. There is an intensive discourse about authorship in art collectives, which also takes place in training. The question is how this can be resolved in the future – the idea of a genius can no longer be sustained.

Christoph Schindler: … a cliché that still persists: the ingenious lone wolf.

…we often move our activities outside the university, where no protracted negotiations are needed within the existing structures.

San Keller: That is why we are looking forward to this year's *documenta*, which will be focusing on collectives. In our Bachelor's programme there are also tensions in this regard: On the one hand there are those who do their own thing. Others are studying education and bound to contracts – as in graphic or object design. And there are those who are politically active, who place these issues on their agenda with the objective of showing that sole authorship is no longer possible. In our theory courses we analyse this ‹main narration› and ‹counter-narration›: How can an audience be changed such that it actually perceives that authorship is collective?

Jacqueline Holzer: If you could start from scratch to reconceive your curriculum, what else would you want to realise?

Christoph Schindler: In product design we recognise the side effects of industrialisation as the trigger for ecological and social instability and understand that they are irreconcilable with models of a liveable future. Our greatest wish would be to radically reconceptualise product design to make it sustainable. But it's a bit like in politics: One has to be careful of taking positions that are so extreme that they overshoot the students and their employability.

San Keller: The potential for collaboration between the fields of study and beyond is still far from exhausted. The internal structures are still hindering this power of diversity. For this reason, we often move our activities outside the university, where no protracted negotiations are needed within the existing structures. We do not want to establish something that will endure for 20 years, we want to keep moving. The university sometimes has the tendency to lag behind the times.

Diversity can emerge within the constraints of a framework.

Christoph Schindler: That doesn't have to be the case. I attended the Milan Design Week, the shrine to consumerism in our field, where in 2022 the manufacturers still outdid themselves with new products. It is the universities who dare to pose real questions about sustainability. Our «No Thing New» presentation showed that our thinking is miles ahead of the field. The challenge is to merge this thinking with the economy.

San Keller: That's true, innovative thinking is possible at the university. Nevertheless, I find that the disciplines can still do more to open up and link with each other. The confrontations with diverse contents lead to shared learning and bring consequences that change each field's praxis.

Christoph Schindler: It is an art to move inside a corset. Kees Christiaanse, who developed the overarching urban planning concept for Zurich's Europaallee, speaks of «freedom from coercion», in this case, from building regulations. Diversity can emerge within the constraints of a framework. That's how I see the case in the context of the university structures.

Monika Gold: I would also prefer more exchange, for instance, between the programme heads – we could learn from each other. One subject that concerns me is the traditional attitudes of my field. Although over 50 % of the students are women, the important role models are still male lone wolves. The reality is often different, however: Women and men who work part-time. They cannot delve as deeply into design and thus have hardly any exemplary works to show. Which has a direct influence on the fact that they remain invisible in the community. Unless we want to do without these talents, we need to look into more sustainable paths.

Jacqueline Holzer: What do you wish for the students in the future?

Monika Gold: That they boldly strike out on their own.

Christoph Schindler: That they are courageous enough to make impertinent statements.

San Keller: That they do not need any wishes.

Linking or Leaping into the Void

Two Teaching Examples on the Relation between Theory and Praxis

Silvia Henke

The paper is dedicated to the relation between theory and praxis, which is central to our education and is to be strengthened in the new curriculum. It proceeds from fundamental considerations about learning and education and discusses the examples of two classroom situations that could also be instructive for the future. The focus is on the question as to what ‹linking› can mean concretely.

Speaking of ways to link theory and praxis implies that there is a trench or gap between the two concepts.

Speaking of ways to link theory and praxis implies that there is a trench or gap between the two concepts. To check whether this is the case, it would seem useful to outline, at least negatively, what one actually means when one speaks of theory *here* and of praxis *there*. After all, this opposition has determined educational programmes at schools or art and design for decades and has occasioned many publications and a great deal of research.

I always find it helpful to understand *theoria* according to its literal meaning of *contemplation*: It is a *certain way* of addressing an object of praxis. The way the term is fine-tuned initially depends on the object itself: A television requires other theorems than a still-life or a textile print. So theory is not merely what is abstract, grey, unnecessary, weak or remote from life, while praxis is something certain, concrete and strong that leads everywhere. For while all theories relate to concrete formations, to expression, material, inconspicuous phenomena, they also relate to a social space and communicative contexts – to discourses. This means: Theories themselves also constitute practices which follow certain rules between scanning, seeing, understanding and knowing. For this, vessels of theory were established at the schools of art and design in the 1990s, which developed a specific theory formation alongside their core training. Their secret goal was and is to strengthen praxis through contemplation and reflection. Through concrete or exemplary mediation. This is theory's demand on praxis.

Theory and praxis are interwoven, because they both proceed analytically and aesthetically.

Conversely, are practices also theoretical? To date this has been rather underestimated, especially in education. For praxis is prioritised, be it secretly or explicitly, because it is simpler and easier to observe, it is forgotten that every practice remains related to a history and a context from which it was formulated and can be comprehended. Practices, like theories, are related, and thus relative to the contexts and situations in which they are embedded.

...theory is not merely what is abstract, grey, unnecessary, weak or remote from life, while praxis is something certain, concrete and strong that leads everywhere.

So, praxis is not the antithesis to theory, and inversely, theory is not the opposite of praxis. This is important: Theory and praxis are interwoven, because they both proceed analytically *and* aesthetically. Both can get bogged down and become sterile if they believe they are valid alone. Practices are never complete; on the contrary, they are often error-prone, sometimes feeble, or short-sighted and in love with themselves. By the same token, theories are never innocent or legitimate on their own terms; they are sometimes sterile, parochial or even determined by the syndrome of repetition.[1] Therefore, the mutual interrelatedness and relationship between theory and praxis must be emphasised and investigated

← **Fig. 1 Philippe Schaufelberger, *Nachtcafé,* illustration, from «Grundlagen visueller Kultur», autumn semester 2012**

in concrete teaching processes. Both in their relation to one another and in the distance they have from each other. Nowhere is this distance as clear as in the difference between image and language.

Example 1: Image and language are related

In the artistic and design process, language is often experienced as dissociative from the actual creative process or artefact. The assumption is that where language comes into play, there can no longer be any praxis. This is why the use of language must be differentiated: Language is never theoretical *per se*. A joke, a polemic, a dramatisation, a mockery, an itemisation or a metaphor are not theory; above all, they are linguistic and rhetorical mindsets. Language art. Nowhere is this artistic dimension of language as clear as in the rhetorical figures of the lyrical. Nowhere are language and image so related as in the area of what is known as speech tropes: in the metaphors and their sisters, the metonyms.

To illustrate this, an example from a translation exercise from the «Grundlagen visueller Kultur» [Principles of Visual Culture] course using the poem «Night Café» by Gottfried Benn. It is an ideal didactic poem, because in addition to the metaphors, it also features the so often underestimated device metonymy. And does so in its most frequent form: The part for the whole (*pars pro toto* and *totem pro parte*).

Night Café

824: Der Frauen Liebe und Leben.
The cello has a quick swig. The flute
belches three bars away: supper was good.
The drum reads the end of his detective story.

Green teeth, acned face
waves to lids with styes.

Oily hair
is talking to open mouth with tonsils
faith hope and charity round her neck.

Young goitre fancies saddle-nose.
He buys her three beers.

Barber's itch buys carnations,
To soften up double chin.

Opus 35: B flat minor sonata
Two eyes roar up:
Don't squirt Chopin's blood down here
so the pack can scuff about on it!
Enough! Hey, Gigi! –

The door dissolves: A woman.
Utterly dried out. Canaanite brown.
Chaste. Full of caverns. A scent comes with her.
Hardly scent.
Merely a gentle arching of air
against my brain.

An obesity trips after her.

– Gottfried Benn, 1912[2]

shift and abridge reality, that metaphors are always a springboard for a second scene. Therefore, the definition of terms is key to the relation between theory and praxis. Therefore, a written work cannot consist of poems, not of Dadaist prose and purely associative processes: Because without precise reading and without terms we cannot comprehend, but only continue to associate and shift over and again. Important to note here is that one can make almost everything into a term and nearly everything can be investigated linguistically. Let us take, for example: Arching. What an exciting term, what an image! Ideally, analysis here results in a back and forth between image and term that is ever further refined. It yields an aesthetic thinking that no longer distinguishes between praxis and theory.

To analyse the relation between language and image, I focus on the poem's depiction of persons: How does one see characters in a poem that works with the stylistic device of reductive metonymy? How does one see the cello, when it simultaneously designates the cellist? What does one see when a young goitre dances with a saddle-nose? The depicture of the poem results in the convergence of language and image, which can approach each other infinitely, but never completely coincide. This is the decisive factor: Linguisticality and imagery both operate in their own aesthetic, they cannot be linked entirely. The illustration by one student (fig. 1) shows how the image strives toward reification, while the language keeps the abstract in suspense. There are and could be other attempts. What is also interesting here is that the illustration translates the scenery proceeding from a metaphor: the utterly dried out woman who enters the image becomes a safari tourist, and the café a cavern. Metaphors are suggestive. With some sarcasm, the lyrical narrator arched with a gentle scent is revealed. There is no theory about this poem, there is only a reading, which emerges through sketches, conversation, time and precision. Ultimately it is the *terms* that supply the tools for comprehension. But the terms are also what generate the most resistance! This is the paradox in working with students of art and design. Their thinking does not search for stability, their understanding with the visual world requires no terms. However, I must insist that we only understand with terms, that metonyms are figures that

↑ **Fig. 2**
↓ **Fig. 3**
Sculpturing the mind: Module «Bild – Raum – Körper», autumn semester 2021, photographs by the author

Linguisticality and imagery both operate in their own aesthetic, they cannot be linked entirely.

Because without precise reading and without terms we cannot comprehend, but only continue to associate and shift over and again.

The pathos formulas, which Warburg smuggled into the present like a pearl diver from Antiquity, has become the model for a visual researching that connects the psyche with material expression and cultural history.

Example 2: Aesthetic, discursive, performative

In the over thirty years during which I have been teaching at the university I have experienced the *linguistic turn* (everything is language!), then the *iconic turn* (everything is image!), then the *spatial turn* (everything is space!). With the *performative turn* one could say that everything comes together, the disciplines, the media, and above all: the dimensions of theory, praxis and reflection. The *performative turn,* which was applied, among others, by Victor Turner from the performativity of theatre to social sciences and gender studies (among others by Erving Goffmann, Pierre Bourdieu and Judith Butler), connects the search for conscious and unconscious behaviour with the problems of knowledge and power as well as the alliance of everyday life and art.[3] Thus, the *performative turn* also belongs to the *practical turn*, which has

gradually become established, after sociology and the natural sciences, in 21st century cultural sciences. The performative would be the material and media praxis of a certain production of knowledge.[4]

Practices connect with reality through their performativity. They show, they express, they manifest, they intervene, they relate, etc. As performativa they also possess a temporal horizon, develop, can reflect. Their reflectivity – insight, intuition, recognition and self-referentiality – emerges from their aesthetic and medial-material constitution: A mirroring, a narration, a pose, a profile, a crease, a rearrangement, a repetition, a rotation, a fissure, etc.: All these performativa are figures of thinking as much as of designing.[5] With this potential the performative can also be integrated into teaching. For instance, when discussing the principles of sculpture connected with the theory of Aby Warburg's pathos formulas. The pathos formulas, which Warburg smuggled into the present like a pearl diver from Antiquity, has become the model for a visual researching that connects the psyche with material expression and cultural history. Their dynamic mode of action was therefore discovered for educational theory, cultural education and art education through art, where it is further refined and developed.[6] When the students – be they seated, standing or reclining – spontaneously sculpt, discuss and reflect their immediate mental state in the context of the iconology of body poses (figs. 2–4), then they often experience that there is no need to link theory and praxis: One is inherent in the other. For both are forms of aesthetic thought. Through a cooperation in the modules among teachers oriented on art, design and science, we hope that many other works will take shape!

With the performative turn one could say that everything comes together, the disciplines, the media, and above all: the dimensions of theory, praxis and reflection.

1 Cf. Silvia Henke, Dieter Mersch, Nicolaj von der Meulen, Thomas Strässle and Jörg Wiesel, *Manifesto of Artistic Research. A Defense Against Its Advocates*, Zurich 2020, pp. 23ff., chapter «Theory and Practice», doi:10.4472/9783035802665.

2 Gottfried Benn, *Selected Poems and Prose*, trans. and ed. David Paisey, New York 2013. *Frauenliebe und -leben* is Schumann's song cycle which set poems by Adalbert von Chamisso (1781–1838) tom music; op. 42. «824» may be an inaccurate reference to the last, tragic song, no. 8.

3 Cf. e.g. Christoph Wulf and Jörg Zirfas, «Performative Pädagogik und performative Bildungstheorien. Ein neuer Fokus erziehungswissenschaftlicher Forschung», in: *Pädagogik des Performativen. Theorien. Methoden, Perspektiven*, eds. Christoph Wulf and Jörg Zirfas, Weinheim/Basel 2007, pp. 7–40. On the function of the performative as an artistic form of mediation, see also Linda Luv, «Participatory Performance and Creative Art Education», in: *Nummer*, no. 9, *Artistic Education*, eds. Wolfgang Brückle and Sabine Gebhardt Fink, Luzern 2019, pp. 41–43.

4 Cf. Andreas Reckwitz, «Basic Elements of a Theory of Social Practices. A Perspective in Social Theory», in: *Zeitschrift für Soziologie* 32 (Aug 2003), no. 4, pp. 282–301, esp. pp. 290ff., doi:10.1515/zfsoz-2003-0401.

5 Cf. Henke, Mersch, et al., pp. 31ff., chapter «Aesthetic Knowledge».

6 For this reason, against all resistance, an obligatory reading is a chapter from Georges Didi-Huberman, *The Surviving Image: Phantoms of Time and Time of Phantoms* [2002], Pennsylvania 2017, pp. 125–138, «The Quest for Primitive Formulas»

→ **Fig. 4 Explaining the pathos formula theoretically and bodily: Pierre Thomé visiting the «Grundlagen visueller Kultur» module, autumn semester 2021, photograph by the author**

Cooperation as a Craft

Interdisciplinary Work As Work in New Contexts

Florian Krautkrämer

The necessity of interdisciplinary cooperation has been written about over and again in recent years, primarily in light of contemporary crises. In areas like sustainability, it seems clear to everyone that the challenges we will be facing can only be tackled together. Yet where it clearly makes sense to link various technical and medical disciplines, for instance, it is less obvious what interdisciplinary work can be within an institution that appears as homogenous from the outside as the Lucerne School of Art and Design. This potential can be explained in greater detail by taking the example of the +Colabor modules,[1] an interdisciplinary area of study.

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Interdisciplinarity, like its oft-used sister transdisciplinarity, is not a strictly defined method; rather, it is better described as a way of working or an attitude that proceeds from the fact that one's own abilities and knowledge are not sufficient for problem-oriented work.[2] The primary tool of such an attitude would be cooperation. In contrast to multidisciplinary projects like film production, for instance, where there are set roles and hierarchies as well as a clearly defined format for the result, inter- or transdisciplinary cooperation exists in more open spaces and therefore, like a craft, must be learned especially. The following points, challenges and demands are relevant for such an interdisciplinary cooperation understood to be an attitude in the context of education at schools of art and design.

Time

A critique frequently levelled at the academic way of doing work is that it proceeds from clear premises in praxis and research, that one already knows beforehand where one wishes to land, rather than beating new, unplanned paths.[3] Indeed, a contemporary understanding of interdisciplinarity does not presume fixed and immovable boundaries between individual disciplines but sees a utility and advantage in cooperation that extends across what is taught within the disciplines.

Within the creative sector, interdisciplinarity also refers to the development of aesthetic theory, which, especially in artistic practice, no longer aims at a materialised and object-based insularity with units of production and reception, targeting a relational praxis instead of a solid end product.[4] The aesthetic object connects and traverses, and connects by traversing. It diffuses into various areas which it changes just as these are changed by it, prompting art theorist Nicolas Bourriaud to no longer speak of forms, but of formations.[5] As such, what matters is not only familiarity with different areas and various tools, but also knowledge about differently oriented strategies, ways of thinking and processes.

...disciplining, which in Foucault's interpretation is a modern technique that results in normalisation, routines and conventions, and produces experts in classification.

Moreover, in connection with interdisciplinarity, Marshall and Bleecker argue for a linguistic affinity that emphasises not only the overarching and connecting nature of the word, but, above all, its connection with the undisciplined.[6] Only someone who leaves behind the conventional can discover the extraordinary. This is also reminiscent of another word stem that is contained in discipline: disciplining, which in Foucault's interpretation is a modern technique that results in normalisation, routines and conventions, and produces experts in classification.[7]

Not everyone can afford interdisciplinary cooperation...

These advantages have a price, however. Not everyone can afford interdisciplinary cooperation, because it necessitates a great deal of additional mediation work. If the timeframe is too tight, one will sacrifice investing in cooperation to time pressure and, accordingly, to fixation on the product to be created.

Especially in today's academic training, time is a luxury not to be underestimated. Not only internal factors like the Bologna Process, with its patchwork

of verification points and the currency of credit points, but also external factors like the economic crisis, the increasing commercialisation of leisure time, education and family are also responsible for this.[8] Clichés about studying back in the good old days aside, it is clear that students today are learning in an environment that is obsessed with productivity.[9] While the permanent emphasis of an uncertain future, as well as the frequently quoted ‹jobs of the future› may, on the one hand, justify the certainly necessary changes within education, at the same time, they also provide for a permanent atmosphere of instability and insecurity.

This condition is exacerbated at schools of art and design, because students are not only confronted with a critical horizon of external expectations regarding the purpose of their training, they are also working in an extremely competitive climate that sets in with the entrance examination even before they begin their studies, and remains at a constantly high level during their course of study through constant calls for prize entries and competitions.

In the course of digitalisation,[10] students today are faced with a pluralisation of the communication tools used in their educational institutions, which accompanies them from their induction to their assignments, and communication, all the way to their final examinations, and stalks them through seamless integration on their smartphones and calendars into the very last corner of their leisure time. The result is not only «the relentless capture and control of time and experience»,[11] but also a condition which does away with free spaces and makes doing nothing, even outside of working hours, seem like a waste of time.[12]

No area in the university or course of study will be able to compensate for these factors, but an interdisciplinary area must react to them, for instance, by creating a liminal phase which students recognize as an opportunity to learn something new that is not merely aligned with what they've learned in their own discipline.

Space

The leisure business responds to these changes with ever more targeted offerings. On Spotify we hear what we like, and Netflix suggests the next film based on the last one we watched. These days, precision of fit is expected in education as well: Everything that does not match what has happened or what is aspired to is perceived as bothersome. Frustration, as a formative feeling that shapes personalities, is largely avoided; how to deal with it is neither learned nor taught. But interdisciplinary cooperation initially requires that a shared basis be approached without any practical application. In order to unharness the transformative potential of received texts (be they images, texts, films, etc.),[13] not only time, but also space is required. Space that does not hide behind any particular room number, but which is reserved especially for this cooperation and differs from the spaces in the rest of everyday university life. The digital space, for instance, on Zoom, is *not* such a space, for this is always the same, no matter whether I have one-on-one or group instruction, or am meeting friends to hang out. Spaces of cooperation are new spaces which exist for the duration of the cooperation.[14] They are characterised by foreignness through new positions, institutions, colleagues and topics.

Spaces of cooperation are new spaces which exist for the duration of the cooperation.

However, it cannot be presumed that space, time and new colleagues are themselves sufficient to establish a culture of interdisciplinary cooperation. Anyone who merely throws these elements together, hoping for the best, will generally receive no more than the sum of their individual parts. For this reason, special mediation and moderation is needed, especially for heterogenous teaching and learning groups.

The result is not only «the relentless capture and control of time and experience», but also a condition which does away with free spaces and makes doing nothing, even outside of working hours, seem like a waste of time.

Didactics

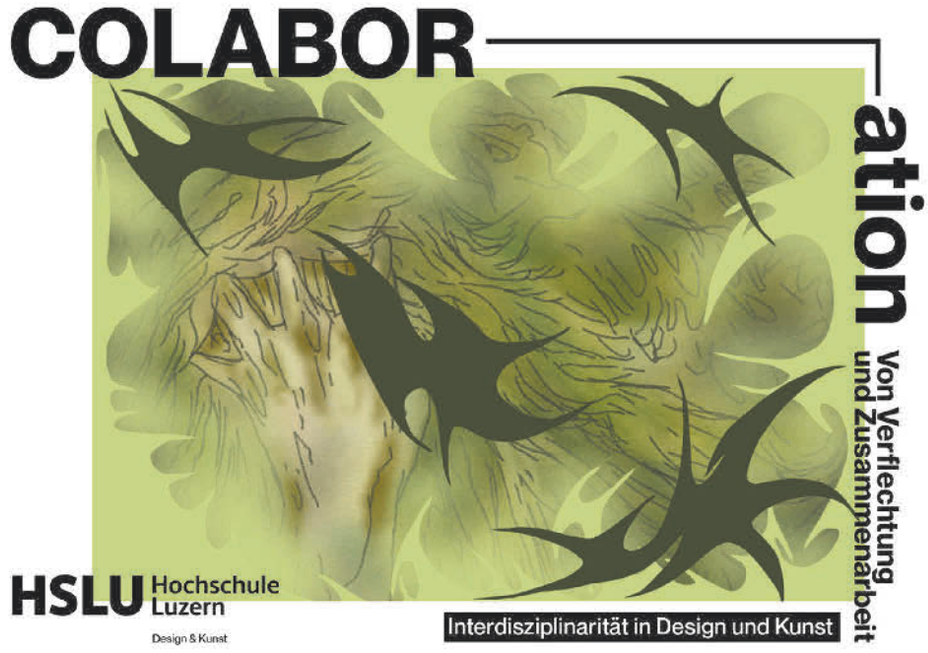
The challenge of interdisciplinary teaching is to temporarily suspend dominant positions on the basis of a knowledge advantage. The focus is not only on imparting secured and targeted knowledge, but also on creating a framework within which new knowledge can be acquired. For this reason, there can be neither layers of hierarchy based on contents nor can the object be to turn students into specialists. The instructor teams in the +Colabor modules are composed of transdisciplinary teachers from both theory and praxis, which allows the co-teaching sessions to be performed as a dialogue that thematizes the interstices between the heterogeneous parts. In this dialogue, teaching is subordinated to an atmosphere of listening.[15]

The tasks of the instructors are those of the ignorant schoolmaster, as Jacques Rancière described in his book of the same name.

The tasks of the instructors are those of the ignorant schoolmaster, as Jacques Rancière described in his book of the same name. This theoretical model concerns a didactics of equality which does not set out to create spaces in order to justify positions, but rather «to make emancipated and emancipating men.»[16] What matters here is less what one person knows and the other

Frustration, as a formative feeling that shapes personalities, is largely avoided; how to deal with it is neither learned nor taught.

→ **Fig. 1 Poster for the annual theme 2023 «Cooperation», motif: Maksim Klopfstein, graphic design: Fawad Qadire**



But since cooperation in heterogeneous groups is a new experience for many students, this aspect receives particular attention in the teaching of the interdisciplinary modules.

does not, but rather how to create a framework and find suitable tools, primarily to support individual progress in the process.

Cooperation

One of these tools is cooperation, which is central to the +Colabor modules. Cooperation is fundamental for interdisciplinarity, but in contrast to elsewhere, it takes place free of hierarchy in the +Colabor modules. Here cooperation means working in new contexts.

Since most students should be used to working in groups, this is where the understanding of cooperation in the +Colabor modules starts. But since cooperation in heterogeneous groups is a new experience for many students, this aspect receives particular attention in the teaching of the interdisciplinary modules. In keeping with sociologist Richard Sennett, the instructors thus seek «to explore cooperation as a craft».[17] Rather than the pursuit of cooperation *per se* as an ethically positive objective, the digital transformation has made it a real necessity to support and develop these abilities in a targeted way. Because the purposefulness of digital knowledge management along with the ubiquity of digital tools encourages a high degree of individuality, the advantages of overarching and intercultural communication must be imparted expressly and intensively. The foundations of cooperation are laid differently in each module; they consist in the common topics and contents. Various conceptions come together here and are aligned with real demands. In view of the increasing tendencies toward encapsulation and forming academic bubbles, such a reality check may be more important than ever. For changes emerge not only when we bring topics and discourses from outside into the classroom, but also when «[t]he process of reform [is] reversed, by applying experiences inside the workshop to society.»[18]

1 The six-week + Colabor modules take place once a year during the spring semester. Over 300 students in their first and second semester then leave their discipline and select one of 24 different interdisciplinary modules.

2 Cf. Craig Bremner and Paul Rodgers, «Design without Discipline», in: *Design Issues* 29 (2013), no. 3, pp. 4–13.

3 Cf. Judith Halberstam, *The Queer Art of Failure*, Durham 2011, p. 6.

4 Cf. Maximilian Linsenmeier and Sven Seibel, «Einleitung. Gruppieren, Interferieren, Zirkulieren», in: *Gruppieren, Interferieren, Zirkulieren. Zur Ökologie künstlerischer Praktiken in Medienkulturen der Gegenwart*, eds. idem, Bielefeld 2019, pp. 7–36, here pp. 10f.

5 Nicholas Bourriaud, *Relational Aesthetics*, Dijon-Quetigny 2002, p. 21. F

6 John Marshall and Julian Bleecker, «Undisciplinarity», in: *Digital Blur. Creative Practice at the Boundaries of Architecture, Design and Art,* ed. Paul Rodgers et al., Oxfordshire 2010, pp. 216–223.

7 Cf. Michel Foucault, *Discipline and Punish. The Birth of the Prison* [1975], New York 1977.

8 Cf. Malcolm Harris, *Kids These Days. Human Capital and the Making of Millennials*, New York 2017.

9 Cf. Jenny Odell, *How to Do Nothing. Resisting the Attention Economy*, Brooklyn and London 2019, p. 40.

10 For a critical view of the term, see, among others, Jan Distelmeyer, *Kritik der Digitalität*, Wiesbaden 2021.

11 Jonathan Crary, *24/7. Late Capitalism and the Ends of Sleep*, London and New York 2013, p. 40.

12 Cf. Teresa Erbach, «Achtsam ausgebrannt. Über Entschleunigung und Nachhaltigkeit», in: *Nachhaltigkeit braucht Entschleunigung braucht Grundein/auskommen ermöglicht Entschleunigung ermöglicht Nachhaltigkeit*, ed. Adrienne Goehler, Berlin 2020, pp. 150–155.

13 On transformative experience, see above all L.A. Paul, *Transformative Experience*, Oxford 2014.

14 On the difference between cooperation and collaboration, see Markus Miessen, *Albtraum Partizipation*, Berlin 2010, p. 81. Miessen prefers the expression collaboration, as the history of the word emphasises the blending of foreign elements as well as the conflictual potential it bears, which he believes more likely to create something new. Here I use Richard Sennett's preferred term cooperation, a capability he believes to be necessary for the survival of our society, and one which is threatening to disappear. Cf. Richard Sennett, *Together. The Rituals, Pleasures and Politics of Cooperation,* New Haven, CT 2012.

15 On the art of listening, much less developed than rhetoric, see, among others, Kate Murphy, *You're Not Listening. What You're Missing & Why it Matters*, Dublin 2021.

16 Jacques Rancière, *The Ignorant Schoolmaster. Five Lessons in Intellectual Emancipation* [1987], Standford, CA 1991, p. 102.

17 Sennett, *Together*, p. x.

18 Ibid., p. 200.

We Know Where We're Going but We're Not Sure Yet How to Get There

Exploratory Strategies in our SNSF Project «Collecting the Ephemeral»

Wolfgang Brückle and Rachel Mader

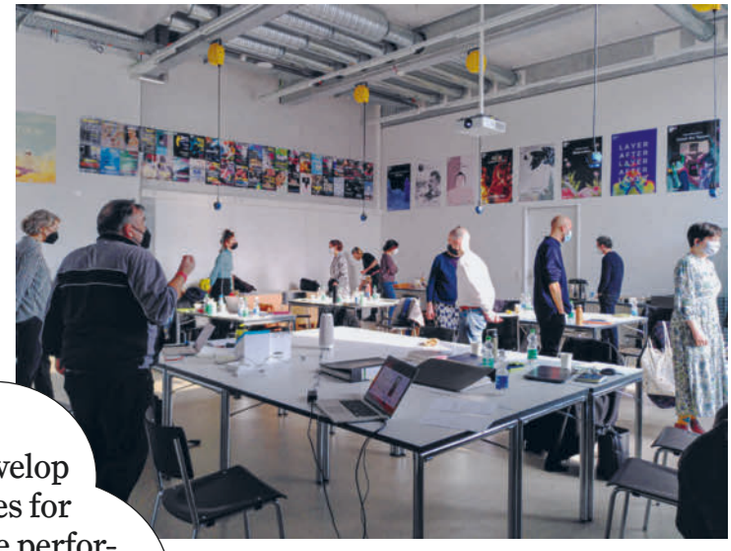
↑ **Fig. 1 Dancer and choreographer Foteini Papadopoulou gives a paper at our workshop «Einüben, Ausüben. Notationspraktiken in der zeitbasierten Kunst», Lucerne School of Art and Design, Emmenbrücke, 18 March 2022, photographed by Wolfgang Brückle**

Finding a meaningful definition of explorative research is no easy task: In one way or another, all researchers claim to be exploring new terrain; ideally, they hope they will be able to produce results that may surprise even themselves. In fact, there are difficulties with determining the very meaning of the phrase: after all, the verbs ‹to explore› and ‹to research› are rather similar semantically. Some methodological discussions even content themselves with equating explorative research to qualitative – rather than quantitative – data collection.[1] But then the humanities are concerned almost exclusively with qualitative methods anyway. And the conception of artistic research, for instance, rests on the fact that a wide variety of very different explorative practices are all considered research even though they are not located in the scientific community. So, are we merely dealing with redundancy here? It might appear so in the literal sense, but in substance this is not the case. Explorative research can stand for the integration of theory and praxis and was therefore recently introduced as a key competence in the training of students at the Lucerne School of Art and Design. In the following, we consider this competence by describing a research project currently underway at our institution.[2] In this project we are focusing on a topic largely neglected by research

> …performance pieces are hardly ever purchased for public or private collections.

> Explorative research can stand for the integration of theory and praxis…

so far, and we respect the fact that applying unconventional methods is a requirement for our extraordinary strand of investigation. In line with a great deal of the research performed at our institution, this project is praxis-oriented; this alone distinguishes it from most of the approaches common in the academic disciplines which are generally believed to be relevant for our subject. Granted, so many other approaches have claims to be explorative as well. But we honour these claims in a different way.



In our project, we investigate performance art, yet without a main focus on art-historical analysis. In fact, we devote our efforts to a change in this field of aesthetic practice that has only recently come to the fore: Even though performance art has enjoyed an increase in attention over the last decade, with important awards and retrospectives granted to artworks and artists, performance pieces are hardly ever purchased for public or private collections. Granted, some institutions, mainly in Great Britain and the US, have started to integrate live performances into their portfolio. But this new tendency is still in its infancy. In Switzerland especially, it has hardly begun. This has as much to do with the traditional self-conceptions of performance artists, who have long considered their own involvement – and indeed resistance to longevity – as a central aspect of their intents, as it does with the prescriptions of the collections and the competences currently available. On the curatorial, conservational and legal levels, other fundamental difficulties result from the impermanent nature of the works. These problems, in part conceptual but also very practical, came to be our starting point.[3] Our objective is to develop principles and strategies for the conservation of live performances in art collections while accounting for the unique constitutive parameters of the art form – presence or the experience of authenticity, the form's own performative character or ephemerality. In providing concepts, best-practice descriptions, and guidelines for practitioners in the field, we hope this project will be helpful in making live performance art desirable to collectors.

> Our objective is to develop principles and strategies for the conservation of live performances in art collections…

> It was difficult to say whether the spectators were witnessing dance, sculpture or perhaps something else.

↑ **Fig. 2 Sound specialist Rüdiger Wenk a.k.a. Phonoschrank directs a practical exercise in the context of our workshop «Einüben, Ausüben. Notationspraktiken in der zeitbasierten Kunst», Lucerne School of Art and Design, 17 March 2022, photographed by Wolfgang Brückle**

> Some might have said: Yes, of course the work should sink into the past, as the irretrievability of the work is the point of all performative art!

As understandable as the motivation for collecting live performance artworks is today, it would have appeared quite senseless a few decades ago. One example: In 1961, Simone Forti performed *Five Dance Constructions and Some Other Things*, an experimental investigation of body movements, in front of an audience gathered in Yoko Ono's New York loft. It was difficult to say whether the spectators were witnessing dance, sculpture or perhaps something else. At that time nobody was talking about performance art as a genre in its own right. What was clear, however, was that they were watching something entirely new. Should we be deprived of this work? Sixty years ago, most people would probably have shrugged their shoulders and asked: What would be a plausible alternative? Some might have said: Yes, of course the work should sink into the past, as the irretrievability of the work is the point of all performative art! Decades later, this was still the view of influential theorist of performance art Peggy Phelan.[4] Yet repeat performances are day-to-day routine in theatre and dance, where Forti's works have their roots. Also, if most early performance artists did not pose the question as to whether their works should, and how they could survive, this was above all due to the fact that thinking into the future does not necessarily occur to you when you perform an experiment for what is possibly a rather small audience in a private space. And this is perhaps how we should think about the first performance of Forti's *Dance Constructions* – as an exploration of uncharted territory. But today the piece is considered a key work of the genre.

There are several reasons for preserving key works of performance art. First, they can still provide impulses for artistic explorations and aesthetic experience. Second, some of them never entered the canon of art history because of their ephemerality. Drawing them back into memory helps correct our historiographic narrative and destabilises the existing canon – in the case of performance art, this also means: restoring outstanding female artists to their place in art history. Third, museums are facing the necessity to expand their scope of

responsibilities and tasks. Some of them see dealing with performance art as a possibility to position themselves as a forum for events rather than a mere storehouse for history. Fourth, it helps destabilise the myth that ‹authentic› art events are irretrievable. Younger artists develop modalities for making their works reperformable, occasionally even taking into consideration the time after their death. The so-called delegated performance is preparing the ground for this approach. But reactivations under ever-changing conditions have been around from the start: Ono first performed her famed *Cut Piece* in New York in 1964 and then repeatedly over the next 40 years. And that is not all. Curator Jill McDermid, once an art student herself, told us that there was a time when repeating Ono's work was considered standard practice among her classmates.[5] The work has obviously already taken on a life of its own in a sort of ‹terrain vague›.

↑ **Fig. 3 Artist Benjamin Sunarjo performs a draft version of his work-in-process performance contribution to our project at the workshop «International Experiences, Institutional and Curatorial», Lucerne School of Art and Design, Emmenbrücke, 23 April 2021, photographed by Wolfgang Brückle**

↓ **Fig. 4 Artist Sarina Scheidegger explains the score of her performance contribution to our project on the occasion of a meeting with our artists, Lucerne School of Art and Design, Emmenbrücke, 6 Dec 2021, filmed by Thy My Lien Nguyen**

We frequently hear similar stories in our qualitative interviews with specialists from various branches of the art sector. We talk with gallerists, curators, conservators, producers and archivists in Switzerland and abroad. Over and again, they face the same conceptual and organizational difficulties. Nevertheless, one of the answers to our question is usually: Every case is different. As a consequence, it is crucial to develop parameters that are as flexible as possible in order to create a method that can be successfully implemented. After the high acclaim of its retrospective on performance artist Marina Abromović in 2010, the Museum of Modern Art in New York expanded its Department of Media by adding «and Performance Art» to its name. Three years later, Forti's *Dance Constructions* were added to the collection as one of its first live performances; by now it is one of the institution's most-frequently loaned artworks. The foundations for this success story were laid in cooperation with the artist. Copyright issues had to be negotiated, new instructions written, criteria for casting discussed, fees and conditions for the transfer of experience determined in regular workshops.[6] Nothing similar had ever been achieved anywhere else. And the Department's curator Ana Janevski states: «What's nice is that you can't control everything in the agreement.»[7] Which leaves open the question as to whether only large institutions can afford to collect such works or whether smaller galleries might even enjoy more latitude, and whether the complexity of the process can be reduced to the point where purchasing live performance artworks seems an attractive option even with fewer resources.

We assume that utilising this pluralistic expertise will enable us to develop perspectives that are not only innovative but also integrate practicability concerns.

The team of «Collecting the Ephemeral» deals with this question using mixed methods, which we strive to constantly adapt as new insights emerge. We perform historiographical archive work in the search for little-noticed practices that could enable us to understand live performances in a different way than we know from Phelan, or indeed some of the ‹heroes› of early performance art. We collect success stories from contemporary praxis. We review varying patterns in agreements and contracts. And we constantly exchange ideas and information with our project partners, who represent several Swiss museums and one commercial gallery.[8] They participate in our events, they report from their own praxis and they are involved in our discussions. Their concerns and experiences – in other areas of time-based art as well – serves as the standard for our objectives. We assume that utilising this pluralistic expertise will enable us to develop perspectives that are not only innovative but also integrate practicability concerns.[9] In 2022, we held a workshop to examine scores in collaboration with practitioners from the related areas of sound art and dance (figs. 1–2). The purpose was to encourage sensitivity among our team and our partners to characteristics of aesthetic expe-

rience which are difficult to determine and convey, especially in ephemeral art. According to Paul Feyerabend, theory is impossible to understand without understanding the examples used in the process of developing it.[10] In this respect, even the obstacles in our conversations with guests and partners proved revealing.

We also incorporate praxis into our theory development in a different way. As associated partners in our project, we were able to enlist several Swiss-based artists. They have agreed to develop over the course of the project a live performance which can be sold and reactivated – a first for all of them. Their preliminary work is taking place in consultation with our team; this enriches our perspectives with concrete problem cases (figs. 3–5). Hence, we are pursuing action-based research, the roots of which extend back to Kurt Lewin's attempt to abolish the division between theory and praxis. In other words: We are using the experiment as a search engine, as Hans-Jörg Rheinberger described the promise of a radically explorative approach.[11] This approach is essential for the success of our project. It presents an opportunity to escape methodological constraints. Our research is initially explorative in the way we obtain our knowledge. While this, as stated above, is fairly old hat in the humanities, we are confronted with an unusual necessity to redefine the field of particular experiences and individual approaches, for instance, in continual conversations with a wide variety of actors. Our research is also explorative in our procedural methods and approaches, which themselves are under scrutiny here, in our practice-oriented overall objectives, and in our concurrent treatment of the fundamental theoretical problems that inform this practice.

We talk with gallerists, curators, conservators, producers and archivists in Switzerland and abroad.

We are using the experiment as a search engine.

↑ **Fig. 5 A glimpse at the score of Sarina Scheidegger's work-in-progress performance piece, presented in the context of a meeting with our artists, Lucerne School of Art and Design, Emmenbrücke, 6 Dec 2021, filmed by Thy My Lien Nguyen**

1 See John W. Creswell, *Research Design. Qualitative and Quantitative Approaches*, Los Angeles 1994, p. 21 and p. 79, as well as the increased attention to the issue in idem., *Research Design. Qualitative, Quantitative, and Mixed Methods Approaches*, Los Angeles 2014, p. 16, pp. 110ff.; cf. Astrid Dickinger, *Perceived Quality of Mobile Services. A Segment-Specific Analysis*, Frankfurt a. M. 2007, p. 9.

2 Members of the team: the authors, plus Philipp Bergmann, Clemens Fellmann, Linda Luv, Siri Peyer and Sandra Sykora.

3 For a preliminary appraisal of the problem in German, cf. Rachel Mader's comments in https://youtu.be/ii6BV0U8LVM?t=13 from 5 Dec 2019 and in Valeria Heintges, «Wie sammelt man eine Performance?», *HSLU News & Stories*, 16 Dec 2019, https://news.hslu.ch/fluechtiges-sammeln/ (retrieved 1 Sept 2022).

4 Cf. Peggy Phelan, *Unmarked. The Politics of Performance*, London 1993, p. 146.

5 Conversation with the authors on 17 Aug 2022, Rosekill, Kingston, NY.

6 Details in Athena Christa Holbrook, «Second-Generation ‹Huddle›. A Communal Approach to Collecting and Conserving Simone Forti's ‹Dance Constructions› at the Museum of Modern Art», in: *Beiträge zur Erhaltung von Kunst- und Kulturgut* 1 (2018), pp. 124–132, and Catherine Wagley, «How MoMA Rewrote the Rules to Collect», in: *artnet news* of 19 Sept 2018, https://news.artnet.com/art-world/moma-rewrote-rules-collect-choreographer-simone-fortis-convention-defying-dance-constructions-1350626 (retrieved 1 Sept 2022).

7 Conversation with the authors on 8 Aug 2022, New York City, Museum of Modern Art.

8 Video statements of 2022 at https://blog.hslu.ch/collecting-the-ephemeral/documentation/ (retrieved 1 Sept 2022).

9 Following Helga Nowotny, «Democratising Expertise and Socially Robust Knowledge», in: *Science and Public Policy* 30 (2003), No. 3, pp. 151–156.

10 Paul Feyerabend, *Against Method. Outline of an Anarchist Theory of Knowledge*, London 1975, pp. 250f., see also pp. 302ff.

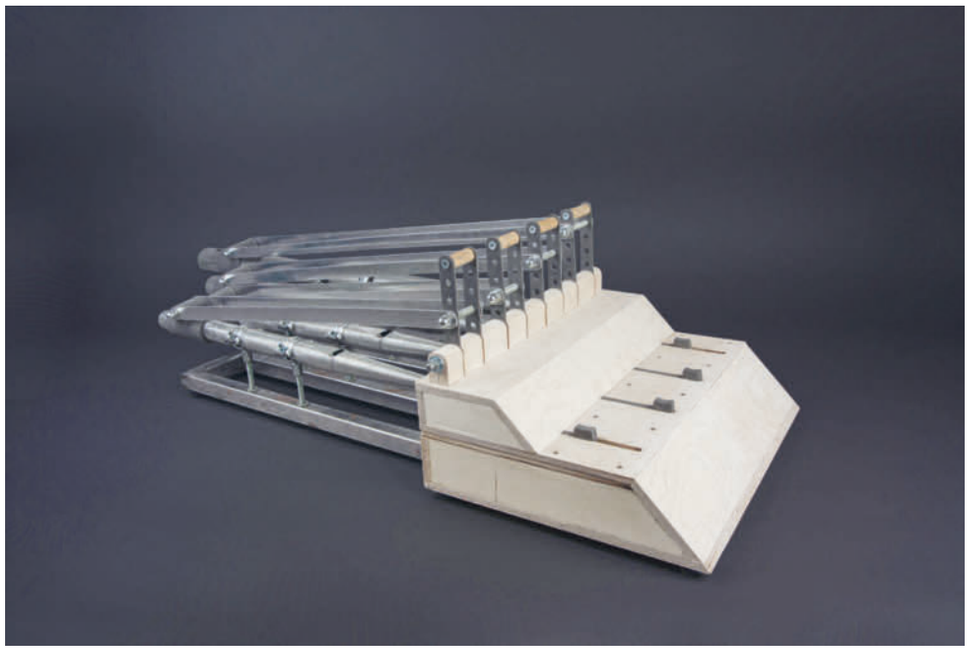
11 Hans-Jörg Rheinberger, «Über Serendipität. Forschen und Finden», in: *Imagination. Suchen und Finden*, eds. Orlando Budelacci et al., Paderborn 2014, pp. 233–243, p. 234; cf. also idem., «The Art of Exploring the Unknown. Views on Contemporary Research in the Life Sciences», in: *Cultures and Politics of Research from the Early Modern Period to the Age of Extremes*, eds. Moritz Epple and Klaus Zittel, Berlin 2010, pp. 141–151, esp. p. 141.


DIGITALITY

Interweaving Disciplines

How Workshop Spaces Generate New Forms of Creating

Alexandra Pfammatter, Thomas Knüsel and Beatrice Alves Capa-Schilliger



The focal shifts brought about by the new curriculum have revealed that the idea of a workshop in a university context needs constant rethinking and adaption. To meet the ever-evolving needs of the institution and its students, it is not sufficient to simply provide tools and maintain project spaces. The strong emphasis on transdisciplinarity, especially at the intersection of analogue and digital technologies, requires an environment that allows for flexible and collaborative working. Thus, the compound of workshops located at HSLU[1] has seen several conceptional and spatial restructurings in the last years. This gave way for a stronger connection between the individual hubs. The workshop personnel has shown that these new ways of operating are therefore not merely an obstacle to overcome. They have created spaces in which multidisciplinary becomes a defining strength, which can clearly be seen in the work of the students who make use of the facilities.

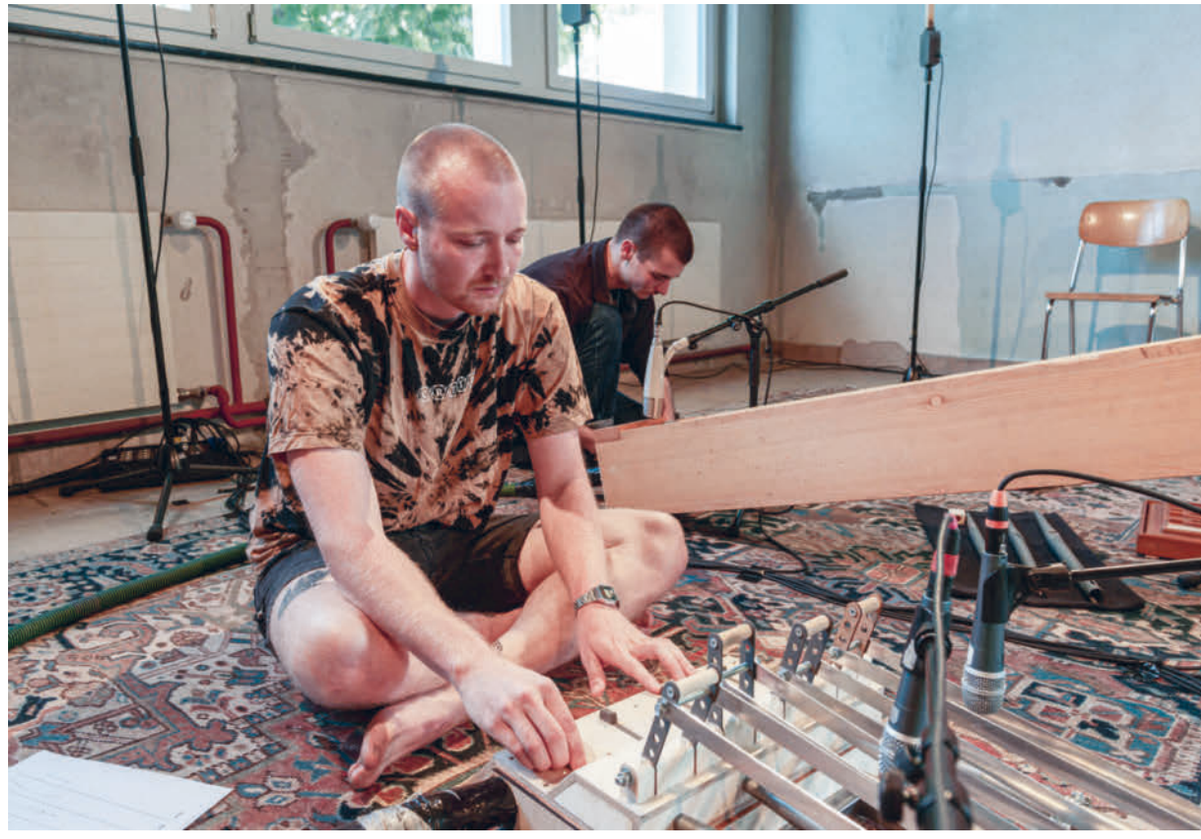
In the following, the projects of Simon Lanz (figs. 1–2), Julian Stettler (figs. 3–4), Noah Ismael Wyss (figs. 5–6) and Nora Zürcher (figs. 7–8) are examined in more detail. Through conversations with those students, it is explored how workshops already encourage the interplay of digital technologies and traditional workshop processes – as well as how the new curriculum will allow for even more such ventures.

↑ **Fig. 1 The project *evolving dronescapes* (2022) by Simon Lanz (BA Object Design) questions the perception of the organ as a traditional church instrument. Lanz de- and reconstructed a variety of organs, resulting in the creation of several new, experimental pipe instruments. A composition was written specifically for the newly developed sound assets by collaborator Tobias Lanz (BA Sound Arts, HKB Bern). The work culminated in a performance, in which the physicality and the sonic connections between the instrument and the space played a central role.**

Dissolving boundaries

Lanz' process, for example, was characterised by working with existing materials. He collected used organ pipes and created entirely new objects out of them. In the wood and metal workshops these were ultimately assembled into a myriad of experimental instruments. Another crucial influence was the interdisciplinary cooperation with musician Tobias Lanz. Prototypes were made, collaboratively tested and adapted until a final form was found.

Stettler created a multimedia work that combines digital photography, print and installation. For his project he built an automated camera and created a model of the Fee Glacier from online data. In the final setup those different methodologies come together as layers in a three-dimensional space.



↑ **Fig. 2** ***evolving dronescapes*****, performance**

The digital and electronic components of *the glacier is a being* were created in collaboration with the MediaDock. As a next step, the work was finalised in the wood workshop.

The interplay of code and materiality is the focus of Wyss' project *Dancing with Robots*. He compiled his own image dataset and used it to train a GAN (generative adversarial network). The resulting images were then interpreted as objects and 3D printed. He subsequently created moulds of them and further experimented with varied materials such as wax, metal and acrylic in the casting process. In doing so, he primarily made use of the various departments of the 3D workshop.

> The tools provided by the workshops not only made these projects possible, they actively helped to shape them.

In Zürcher's *It Was All A Dream*, the contrast between the digital and the analogue is a core theme. In her process she used several 3D scanning and modelling tools, adopting both traditional sculpting methods as well as software. She blended them in a way that makes it hard to distinguish between what was created manually from what was artificially generated within her final output. To achieve this, she taught herself how to use various 3D technologies with the help of the MediaDock team.

The tools provided by the workshops not only made these projects possible, they actively helped to shape them. Their capabilities, limitations and the way they can be combined has an undeniable impact on student projects. This can be seen particularly well in *Dancing with Robots*. Here, both the digital input from the GAN and the specific properties of the materials used contributed their share of contingency. In Wyss' case, this circumstance can be seen as an effort to reflect on the implemented technologies. How an expansion of the workshop benefits students can be seen in Lanz' process. It was the acquisition of a nylon printer that allowed him to further refine and complexify his work. But the introduction of new tool brought not only new possibilities. It also effected a change in thinking and a further adaption of knowledge.

↑ **Fig. 3** ***the glacier is a being*** **(2022) is a work by Julian Stettler (BA Camera Arts). Using time-lapse photography, Stettler examined several Swiss glaciers and ultimately recognized them as more than static or passive domains. By collecting and contextualizing time documents, geographic data, and other supporting information, they are revealed as vast, ever-changing organisms – actors in an interconnected web that contains all forms of existence. The investigation is presented as a book as well as a video installation that includes a model of the Fee Glacier.**

This holds especially true for projects that bring together a variety of instruments in unique ways. Several students made this experience when translating between digital and analogue working methods. While editing his data for CNC milling, Stettler found that different workshops require widely different workflows and standards when it comes to file preparation. Just a few megabytes can overwhelm and shut down such devices if the information provided is too complex. The opposite occurred for Zürcher, who scanned manually produced clay figures. She had to deal with challenges such as large amounts of data or the loss of information through digitalisation. Eventually, she integrated and even exaggerated some of these unavoidable visual irregularities in her project.

> ...the creators become links between the individual spaces.

Ultimately, collaborating in multiple workshops challenges students to transcend disciplines and create new thematic connections. Stettler describes this workflow as a kind of satellite situation, in which he informs himself about the methods he needs and then finds the appropriate place for support. In this way, the creators become links between the individual spaces. They carry their acquired skill set and knowledge from one place to another and thereby establish new connections between existing areas. But this process does not only occur between the students and workshop staff. Another crucial point is the encounter and exchange between participants from different study programmes. Wyss, for example, puts a great deal of emphasis on such interactions and credits them as a vital part of his process. Projects thus become interplays not only between different technologies, but also between diverse academic currents.

Creating access

Looking at how the workshops were accessed during these projects, it is easy to see where the new curriculum can do even better to promote transdisciplinary approaches. In Lanz' case, familiarisation with the workshops began primarily through the mandatory introductions during his

↑ **Fig. 4** ***the glacier is a being*****, glacier model close-up**

course of study. Here, an initial overview could be provided which would allow students to further educate and specialise themselves. Thus, these introductions also serve as facilitators of an independent way of thinking and working. Stettler, on the other hand, often became aware of certain opportunities through additional evening workshops. The new study structure will allow even more contact with such offers in the future. Last year, however, it also became clear that reaching students in this area cannot be achieved through the course structure alone. All four participants state that they visited the workshops' new online platform.[2] This is an opportunity to present various practical tools and theoretical inputs and to connect them with each other beyond disciplinary boundaries.

The new study structure will allow even more contact with such offers in the future.

The students' diverse needs, which go hand in hand with their unique ways of working, can present a further challenge. This becomes clear when, for example, Stettler's and Zürcher's approaches are compared. *the glacier is a being* started from a point where a mostly complete, research-based idea needed to be implemented. In this case, many technologies were utilised only because a concrete demand arose. Here, the workshop functions primarily as a means of selective technical assistance at a given moment. Zürcher's project, on the other hand, was more process-based. Her way of working was characterised by constant experimentation, which in turn influenced the overarching concept. In such situations, it is important to support students with extensive information for further processing and contextualisation. Therefore, it is crucial to create spaces that are flexible and responsive – providing refined assistance as much as a stimulating lab environment.

A constant shift

These insights show that the new workshop structures bring as many opportunities as challenges. Therefore, this reflection is not intended as a presentation of a definitive new state of the art. Rather, it aims to show that the interlinking of disciplines and the resulting strategies allow us to respond to the constant changes within a cultural

← **Fig. 5 Noah Ismael Wyss' (BA Fine Arts)** ***Dancing with Robots*** **(2021–) addresses the possible future beyond a dystopic conflict between human and machine. Wyss adopted technologies of machine learning to then interpret and translate their outputs into haptic bodies. During the creation, experiments with code and materiality constantly informed each other – resulting in a collaborative symbiosis between him and ‹artificial intelligence›. The outcome is a myriad of objects that emerged as much from datafication as they did from the serendipity which occurs during manual processes.**

> ...using the workshops was not only a means for them to realise their projects, but also led to subsequent ideas and discoveries...

context. They give way to new, important formats – between theory and praxis, digital and analogue, or art and design.

For instance, all the artists and designers interviewed said that using the workshops was not only a means for them to realise their projects, but also led to subsequent ideas and discoveries, which were incorporated back into their projects. Wyss specifically mentioned how he considers these spaces and the opportunity to use them flexibly as one of the major assets offered by the university. This shows that a transdisciplinary approach does not stop with the implementation of infrastructures that allow such processes. The active communicating and teaching of such concepts to students is just as important a part of this development.

↑ **Fig. 6** ***Dancing with Robots*****, GAN output**

1 This network includes the room for colours, the wood, metal, textile, 3D, digital fabrication, digital printing and publishing, manual printing and AV workshops, the photography lab and studio, as well as the MediaDock.

2 https://sites.hslu.ch/werkstatt

→ **Fig. 7** In *It Was All A Dream* (2022) Nora Zürcher (BA Illustration Fiction) explores the cinematic nature of her own dreams. As she combined digital and analogue technologies, Zürcher captured the alienating, often absurd feeling of this ambiguous state of mind. Four of her nightmares were illustrated as printed movie posters, each one accompanied by a short trailer. These animations, which can be viewed via an augmented reality application, once again interlace two different realities with each other.

↑ **Fig. 8** *It Was All A Dream*, digital 3D modelling process

Against Programming

On the Development of Cultures of Coding in Art and Design

Birk Weiberg

...the predominant cultural technique of digitality for art and design seems to belong to another discipline, and thus requires strategies of appropriation.

The newly developed interdisciplinary curriculum of the Lucerne School of Art and Design is organised around seven competences, which have been identified as relevant for the future across all specialised Bachelor's programmes. Digitality is one of them and, as with any transdisciplinary competence, the question is how to adapt it to the specific context in which it is expected to become productive. The following thoughts sketch one way to do so but do not claim universality.

In academia, digitality, or «being digital», as Nicholas Negroponte audaciously called our condition in contemporary technoculture,[1] has first and foremost been the domain of computer science. This is also the case for the primary practice of digital authorship: programming. Of course, other forms of digital authorship (by means of non-textual interfaces) exist, but they would not do so without programming. From this perspective, the predominant cultural technique of digitality for art and design seems to belong to another discipline, and thus requires strategies of appropriation. One form of symbiotic relationship between the disciplines is that developers program smart tools which enable artists and designers to create equally smart things. But in recent years, computer science has lost its monopoly on teaching people how to write software, so that more and more initiatives not only address additional groups but also develop independent approaches to writing code.[2] As Annette Vee observed in her book *Coding Literacy*, «programming is too useful to too many professions»[3] to be left to a single disciple alone and its understanding of what programming actually is. This is all the more important as since the late 1950s computer science has successfully framed programming as a form of engineering, a practice that aims to solve a specific problem or task efficiently and reliably. This instrumental conception of algorithms makes perfect sense when thousands of programmers write millions of lines of code that make planes fly or cars drive autonomously. But it has little to do with what individual artists and designers might want to achieve when they waive much more intuitive user interfaces in favour of structured text.

...computer science has lost its monopoly on teaching people how to write software...

...an approach that today goes by the name creative coding.

Parallel to the history of computers in science and engineering there have, of course, been parallel trajectories in art and design that often go back to the same period in the 1950s but lack the successful institutionalisation of computer science. Computer art, to give these parallel developments a single comprehensive name, has been much more fragile, emerging locally with changing focal points

Coding uses (or misuses) machines but does not necessarily construct them.

When machines start to learn, the old paradigm of automation, which is closely linked to engineering, reaches (or maybe crosses) its limits due to its foundation on mind-body dualism.

or cultures, which often sailed in the slipstream of computer science, e.g. by using its infrastructures for rendering graphics during night shifts.[4] A broader academic institutionalisation of computer art started some twenty years ago not as art but as design, an approach that today goes by the name creative coding. This development began with John Maeda's software (and book) *Design by Numbers* and his eponymous book *Creative Code*, where he argues that designers should embrace algorithms as a new tool.[5] And the development has probably come to a conclusion with the recent *Code as Creative Medium*, edited by Golan Levi and Tega Brain, in which a dozen successful educators in the field of creative coding reflect on their teaching practices.[6]

Though the frequent use if the noun ‹code› in this context suggests a specific approach or autonomy, the verbs ‹coding› and ‹programming› are usually used synonymously. Likewise, I am not aware of any discussion on the questions of whether it makes sense to distinguish practices in computer science from those in art and design more clearly by giving them different names.[7] But this is what I want to suggest to better understand how practices of digital authorship in art and design differ from those in computer science and how they can be developed further specifically in educational contexts. From that point of view, the objective of programming is the production of a coherent, functional piece of software, a program, a little (or not so little) machine that is hopefully neatly constructed to do a specific thing. Coding, on the other hand, can be seen as a much more profane denomination of the practice of writing code, a piece of machine-readable text that usually does *something* but does not need to fulfil the same standards as a program. Coding uses (or misuses) machines but does not necessarily construct them. And lest this sounds as if coding is simply an underdeveloped form of programming, the humbleness that comes with my reading of the term also has the advantage of reminding us that the act of formalising language is at the core of human-machine relations and a chance to reflect upon them.[8]

The crux of successful practices like creative coding is that the development of tools and frameworks can lead to restrained applications and aesthetics (e.g., the typical complex hairlines of early processing). When increased freedom of use is put forward as an argument for working with code rather than with GUI tools, which are based on the separation of complicated, functional code from creative usage, this distinction is potentially

↑ **Fig. 1 Joana Chicau and Renick Bell, *Círculo e Meio / Circle & Half,* live coding performance, 2018, Spektrum Berlin, photographed by Henrique Palazzo**

blurred as creative coding tools become ever easier to handle. The better and more professional such tools become, the more one should be open to alternative approaches that cultivate transdisciplinarity as a site of critique. One reference comes from Philip E. Agre, who was trained and worked in AI in the 1970s and 1980s before turning to humanities to better understand the blind spots of his disciplines: «A critical technical practice will, at least for the foreseeable future, require a split identity – one foot planted in the craft work of design and the other foot planted in the reflexive work of critique.»[9] While Agre uses the term design here to mean the purposeful approach he found in AI programming, we might take it as a placeholder for any distinctly applied practice that may have to limit its critical potential to remain functional. The limits of intradisciplinary critique are something Agre encountered, and AI is a good example of the need for a space to think about the future of co-creation between humans and machines. When machines start to learn, the old paradigm of automation, which is closely linked to engineering, reaches (or maybe crosses) its limits due to its foundation on mind-body dualism.

A field in the humanities that developed in parallel with creative coding in design is software studies, also called critical code studies.[10] What started as a critical look, first at applications and then at interfaces of New Media, has led at least some scholars to code itself. Perhaps surprisingly, the research subject of code studies is usually not pre-existing code, which is often inaccessible and simply too extensive, but pieces of one's own code that can interact with that of others. Coding here occupies an interesting ambiguous space between humanities' genuine medium, text, and something that is directly actionable and potentially expressive and creative. The blurring of the distinction between traditional text and computer code is further supported by references to J. L. Austin's speech act theory, which is an ascription for the first but description of the latter. Thus, the insight that code is an actionable language that connects humans and machines can be seen as ground zero for any critical approaches to code.[11]

Perhaps surprisingly, the research subject of code studies is usually not pre-existing code, which is often inaccessible and simply too extensive, but pieces of one's own code that can interact with that of others.

These inquiries by humanities scholars have paved the way for new hybrid forms of teaching coding without losing a critical distance to its applications. An excellent example here is *Aesthetic Programming* by Winnie Soon and Geoff Cox, which combines an introduction to the popular coding framework p5.js with critical theories.[12] Similar to more conventional introductions to

The ontological shifts that come with this practice, which does not categorically distinguish between material, tool, notation and art piece, are characteristic for more than functional usages of code.

1 Nicholas Negroponte, *Being Digital*, New York 1995.

2 One exemplary grass-roots initiative, which develops workshops for various disciplines to empower them when it comes to dealing with code and data, is The Carpentries, https://carpentries.org. Other initiatives address specific, marginalised groups that are under-represented in computer science without considering specific disciplines at all.

3 Annette Vee, *Coding Literacy. How Computer Programming Is Changing Writing*, Cambridge, MA 2017, p. 12.

4 Cf. Grant D. Taylor, *When the Machine Made Art. The Troubled History of Computer Art*, New York 2014.

5 John Maeda, *Creative Code*, New York 2004.

6 Golan Levin and Tega Brain, *Code as Creative Medium. A Handbook for Computational Art and Design*, Cambridge, MA 2021.

7 The composite ‹creative coding› aims to do this, of course, but misses the opportunity to position coding as a counter-practice to programming for the sake of a simple alliteration. Likewise, the attribution of creativity to the usage of code in art and design is taken as easy prey and without much contemplation. For an in-depth analysis of the concept of creativity, see the contribution by Orlando Budelacci in this issue, pp. 56–59, doi:10.5281/zenodo.7418222.

8 One might also think here of code in relation to semiotics – a connection that is beyond the scope of this article.

9 Philip E. Agre, «Toward a Critical Technical Practice. Lessons Learned in Trying to Reform AI», in: *Social Science, Technical Systems, and Cooperative Work. Beyond the Great Divide*, eds. Geoffrey C. Bowker et al., New York 1997, pp. 131–157, here p. 155.

10 *Software Studies. A Lexicon,* ed. Matthew Fuller, Cambridge, MA 2008; Mark C. Marino, *Critical Code Studies*, Cambridge, MA 2020.

11 Cf. Inke Arns, «Read_me, run_me, execute_me. Code as Executable Text: Software Art and Its Focus on Program Code as Performative Text», in: *Media Art Net* (2004), http://www.medienkunstnetz.de/themes/generative-tools/read_me/scroll/ (retrieved 1 Sept 2022).

12 Winnie Soon and Geoff Cox, *Aesthetic Programming. A Handbook of Software Studies*, London 2020, https://www.aesthetic-programming.net (retrieved 1 Sept 2022).

13 Ibid., 167.

14 Winnie Soon, «Vocable Code», in: *MAI* (10 Nov 2018), https://maifeminism.com/vocable-code/ (retrieved 1 Sept 2022).

15 https://www.geometries.xyz; Joana Chicau and Renick Bell, «Choreographies of the Circle & Other Geometries», in: *Critical Coding Cookbook. Intersectional Feminist Approaches to Teaching and Learning* (2022), https://criticalcode.recipes/contributions/choreographies-of-the-circle-other-geometries (retrieved 1 Sept 2022).

programming, the individual chapters dive into specific features of JavaScript and the p5.js framework, but do so in connection with theoretical concepts and art pieces. So, the chapter «Vocable Code», named after an installation/performance by the authors, does explain how to load data from a JSON file, how conditional structures work and how to animate text in a browser window. But it also demonstrates how «code mirrors the instability inherent in human language in terms of how it expresses itself, and is interpreted.»[13] With its practice-based approach, the book here makes intelligible what Soon elsewhere described as «constrained writing»,[14] i.e., our sensation of writing code according to the rules of the machines but which echoes societal functions of language.

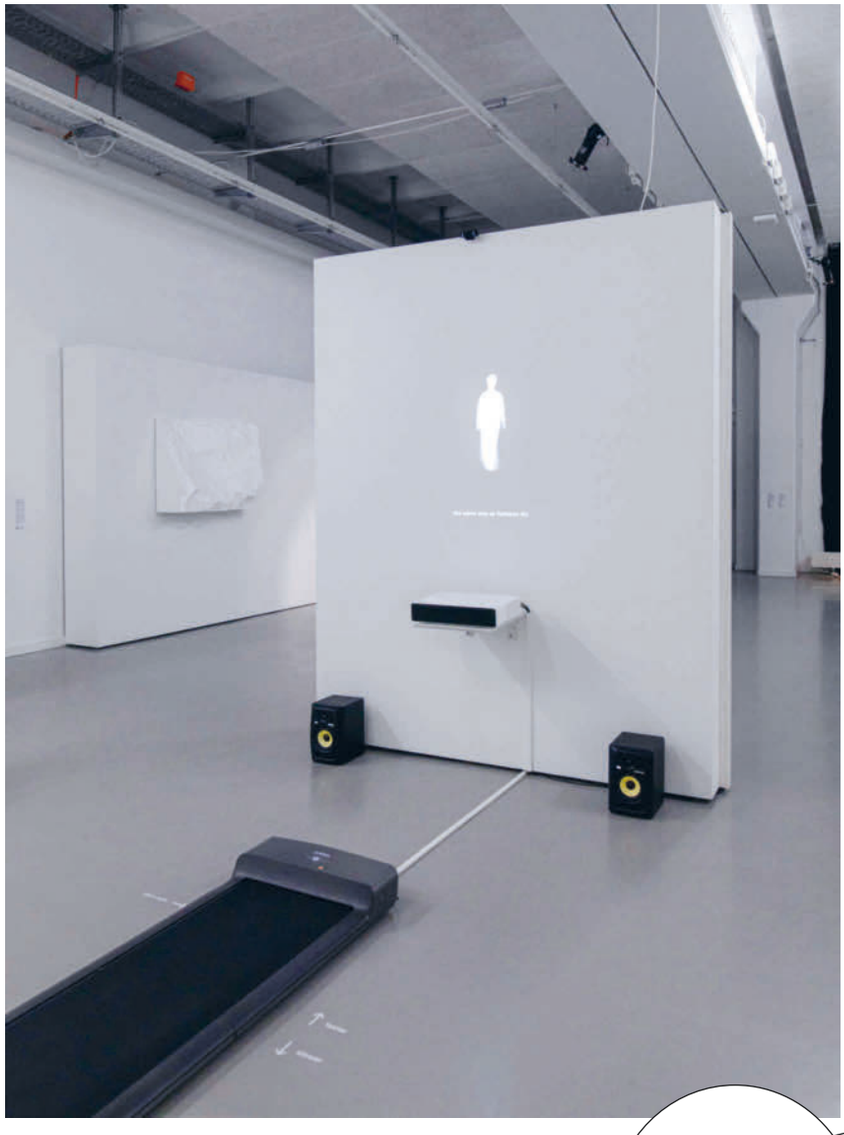
A critical coding practice is also central to the work of Joana Chicau and Renick Bell in their artistic research project «Choreographies of the Circle & Other Geometries», where they explore alternative conceptions of the web browser space by means of live coding. The project makes the framework developed by the artists available as an instrument for others and provides instructions on how to use it in the form of a recipe.[15] The ontological shifts that come with this practice, which does not categorically distinguish between material, tool, notation and art piece, are characteristic for more than functional usages of code.

These examples are far from being normative, but they stand for a diversification of coding and programming practices that must be seen as vital for the formation of the digital technoculture we live in. With its new curriculum, the Lucerne School of Art and Design is attempting to develop transdisciplinary modules and transfer a long-standing tradition of combining theory and praxis to digital environments. To position *coding* in art and design schools against *programming* as it is taught in computer science does not put one above the other, but rather argues for an independent and self-assured claim on digital technoculture by art education, one that explores the situatedness and contingencies of technologies, and sees them as a means not only to employability but also to critical inquiry and public participation.

To position *coding* in art and design schools against *programming* as it is taught in computer science does not put one above the other…

Creativity in the Age of Artificial Intelligence

Orlando Budelacci



↑ **Fig. 1 Kim da Motta, *How would I walk, had I never seen a woman walk?,* installation view in the graduation show at Lucerne School of Art and Design, 2022**

Artificial intelligence is in the process of conquering the world. It has already penetrated many fields of application that were previously the sole preserve of humans, completely inaccessible to machines. What was unthinkable a few years ago is about to become everyday reality: medical diagnostics take over the early detection of diseases, chatbots respond to customer enquiries, facial recognition is used to identify war victims and drones find their targets independently of human control. Advances in autonomous driving are astounding, machines are winning against humans with ease in chess and on quiz shows and assisting and replacing humans for translation into dozens of languages. AI technology is also being used in the fight against increasing environmental pollution, with robots sorting waste and controlling transport systems to reduce emissions. AI algorithms are present in our everyday lives, using big data to control recommendation systems for streaming on Netflix and ordering on Amazon. In short, machines have already surpassed humans in many capabilities and are influencing or controlling them at work, in society and in the economy.

In view of the enormous progress in the field of AI, the question arises as to whether there are areas into which machines have not yet advanced. Almost always, the area of creativity and art is mentioned, which seems to be beyond mechanized influence. The idea of machines continuously surpassing human intelligence has become a threat to human beings' self-image: what will become of us when there are no more areas in which we are not surpassed? What if we are in the process of doing away with the human being altogether, without consciously meaning to? If one asks what distinguishes the human being from a machine, human creativity certainly occupies a special place.[1] This aspect of humanity is full of mys-

> What will become of us when there are no more areas in which we are not surpassed?

teries and undiscovered secrets and not very accessible to rational understanding. How can we succeed in simulating it if it is poorly explained? AI systems use data to emulate artistic creation. Their path follows mathematics and statistics, not intuition and feeling. Understanding creativity is a key to understanding the limits and limitations of AI.[2]

The new does not arise out of nothing, it is constituted relationally.

Creativity – what is it?

While digitalisation and algorithmicization have increased in the 20th and 21st centuries, society has placed growing value and importance on the idea of creativity. Being creative, creating something new, has become an unquestioned place of positivity. There is no one who does not want to be creative, no one trusts solely in the power of tradition and the continuation of the existing. The complexity of the world constantly demands new solutions. Creativity has taken on a new role as well as new economic relevance, and Hans-Ulrich Gumbrecht has already asked whether creativity is a spent term.[3] It is no longer assigned merely to the realm of individual artistic self-development, its place is no longer the margin, the outside, the critical-reflexive of society; creativity has entered into a close connection with capitalist production. The result of this connection between creativity and capital or the economy is called the ‹creative industries›. The concept of creativity is of ubiquitous relevance in the present; it has also entered into a close connection with technology and design.[4]

There is no one who does not want to be creative...

In a general understanding, it refers to the emergence of something new; a mental mechanism of creative thinking that produces new results and artefacts that have never been there before. It is a multi-faceted term that, depending on how it is used, denotes a process, a product or a skill. In what follows, I would like to identify three main characteristics. This is interesting for the discussion of the creativity of machines because criteria are elaborated which provide a reference point for assessing creative artefacts and processes.

Creativity refers to the result of a creative process that is *unexpected*, that is, one that could not be predicted and planned for.[5] It arrives unprepared and then suddenly, it strikes. Depending on which vocabulary one uses, one can speak here of an idea, a discovery, a flash of inspiration or a sparking idea. This moment is an unconscious action that escapes conscious control. It occurs independently of a rationally controlled thought process. It is an act of accessing the innermost part of the human being. This access requires intensity and passion; it usually occurs only if it has been preceded by a preparatory process.

It is an act of accessing the innermost part of the human being.

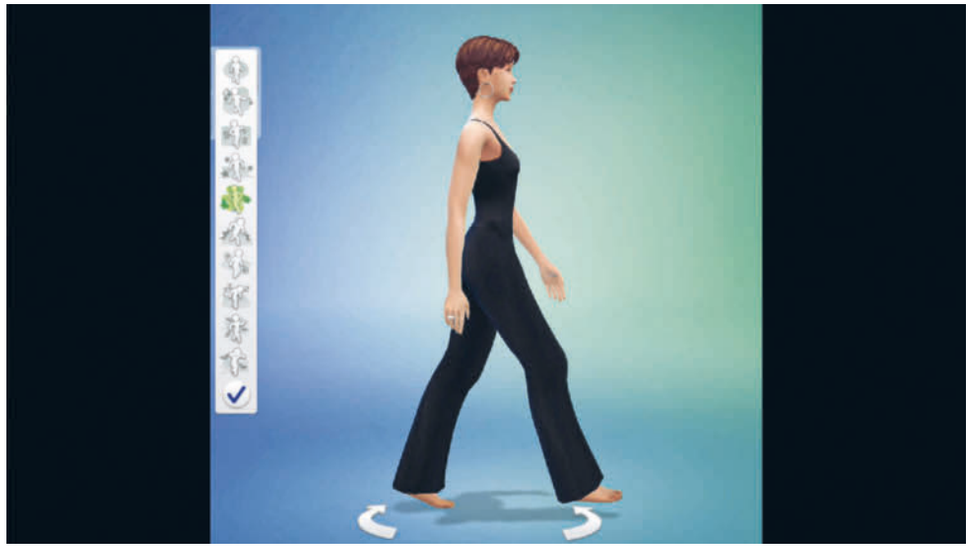
Secondly, the result of a creative act is *new*, which refers to the fact that no identical copy exists. What is new can be determined only by reference to and demarcation from something preceding it. The new does not arise out of nothing, it is constituted relationally. The will to creativity presupposes dissatisfaction with what exists. It arises from the desire to question the existing, to insert a critical question mark and to design something new: the world is to become a different one. Creativity is always also implicit or explicit criticism and resistance against old, handed-down tradition.

Thirdly, the result of the creative act has a value that is *meaningful*. This is a decisive characteristic: it is not an arbitrary result that is evaluated as creative, but it corresponds to certain expectations or the norms of a certain discourse context that consider it to be qualitatively valuable.

I would like to explain three types of creativity on the basis of Margret Boden's valuable distinctions.[6] These three types of creativity differ in terms of the degree of novelty, i.e., in terms of distance from the given, which is present to varying degrees. These three types of creativity all fulfil the previously mentioned characteristics of unexpected, new and meaningful. They are not an alternative proposal for labelling creativity, but indicate the extent to which the creative act generates novelty. Is it through the recombination of known elements (combinational), through the exploration of a still existing element (exploratory) or a complete new beginning that radically breaks with its previous history (transformational)?

The new pieces sound similar and familiar, but they are not copies.

The first type is *combinational* creativity. It refers to the recombination of already existing elements into something new. I would include AI software like AIVA[7] or Jukebox[8]; these programmes analyse large amounts of data and recombine them into new pieces of music. The new pieces sound similar and familiar, but they are not copies. Jukebox is a neural network that generates music and also creates vocals in a wide range of styles. It is also possible for Jukebox to compose a complete piece of music based on a few sequences of notes. The Bilderatlas Mnemosyne by Aby Warburg combines existing pictures and arranges them in new contexts. Collages also function according to this principle, recombining



↑ **Fig. 2 Kim da Motta, *How would I walk, had I never seen a woman walk?,* Bachelor's project for Lucerne School of Art and Design, 2022**

existing elements into something new. Examples can be found in the works of Pablo Picasso, Georges Braque and Max Ernst.

The second type is *exploratory* creativity. It explores and stretches boundaries found within an existing style. However, there is no radical break with what has gone before; rather, a dynamic further development takes place. In the visual arts, Pointillism can be understood as a further development of Impressionism. It is a radicalisation within the existing style. Another example of the continuation and exploration of a style is Mannerism, which explores the forms of the late Renaissance and takes them to their limits.

The third type is *transformational* creativity. This describes a radical break with existing works and a departure for new shores. In the visual arts, these are upheavals that involve rebellion and new beginnings. No further development of an existing style, but a disruption of previous conventions. Dadaism rejects conventional art and is directed against handed-down traditions, constituting an act of rebellion against the bourgeois value system of art. The punk movement can be interpreted in the same way; it does not continue along the existing paths but breaks with previous conventions.

In the visual arts, Pointillism can be understood as a further development of Impressionism.

Artificial intelligence and artistic practice

New artistic practices are emerging that use the new technology of artificial intelligence as an experimental tool to extend artistic activity and to create or expand new digital design spaces. Data is the material basis for artists to create new visual artefacts based on the modification and manipulation of data or training datasets.

... AI and its fields of application can be critically questioned through artistic practices.

The third type is *transformational* creativity. This describes a radical break with existing works and a departure for new shores.

In addition to its function as a tool, AI and its fields of application can be critically questioned through artistic practices. AI is not a tool here, but an object of investigation to explore the socially relevant effects and implications of AI. The aim here is to reflect on a critical relationship to this new technology and to make it visible through artistic practices. Kim da Motta's final project in the Camera Arts Bachelor's programme critically examines the practice of biometric recognition based on a person's gait, which not only identifies individuals based on their gait, but also makes a binary categorisation according to gender. The work criticises the stereotypical binary gender categorisation, due to the dearth of diverse data material used to train the algorithm. Kim da Motta's artistic work highlights the fallacy of ‹discrimination-neutral› practices, which are a reflection of social reality; they reproduce bias and contain distortions and discriminations.[9]

Another way to apply AI in artistic practice is to use AI tools to produce artistic artefacts through language. The output is controlled through the input of words. The AI application Midjourney[10] produces four different images based on language input. This initial input triggers the visual generation of images. The results are amazing. New visual worlds are created on the basis of data without having to resort to human abilities to imagine new worlds, impressions and moods. Certainly, one can also state that the AI artworks reproduce already existing artistic styles and explore them only in part. However, it is highly doubtful that they might also possess transformational power, i.e., that they radically question what already exists and advance into new dimensions of artistic creation.

Human and artificial creativity – an outlook

The examples show that AI applications such as Midjourney and DALL-E 2[11] have advanced into previously unimaginable new dimensions of creativity through machines. The debate on creativity can be boiled down to the following question: what distinguishes human creativity from artificial creativity? A provisional answer looks like this: The difference is that human creativity resides in a body that is connected to the world through its senses. Moreover, every human being has a subjective approach to the world because of their history, their origins, their thinking. Art is the result of a continuous confrontation with the world, with material, with other people and also with the history of artistic practice.[12] Moreover, creative work has a meaningful dimension; it does not come about at the push of a button, but through effort and passion. Creativity, understood as a mental process, takes time, it is integrated into a human discourse and value context, which in turn is the basis for the evaluation of creative achievements. Machine-made art operates with data instead of passion, so that AI will be able to imitate and extend humanly produced art ever faster. What does this mean for art and human beings? Is AI merely a useful tool that will eventually become part of artistic practices? Or are we facing a revolution that will require a radically new approach to art and creativity and, in turn, change human beings' role in the world?

What distinguishes human creativity from artificial creativity?

Creativity, understood as a mental process, takes time, it is integrated into a human discourse and value context, which in turn is the basis for the evaluation of creative achievements.

How is AI changing art and design education?

The technological development of AI and the new areas of application in the field of creative work also requires a change in art and design education: the teaching of digital competences should be given even more weight; in particular, programming skills should be taught. It is crucial that students understand how AI works, in order to be able to use it as a tool, to critically reflect on its social impact, and to visually implement it in artistic works. The bases for this training are critical thinking and the understanding of ethical and philosophical debate about this new technology. Accordingly, these skills should be deepened as well; they are increasingly the basis and prerequisite for critical reflection.

The teaching of digital competences should be given even more weight; in particular, programming skills should be taught.

1 Max Tegmark, *Life 3.0. Being Human in the Age of Artificial Intelligence*, New York 2017, p. 53.

2 Marcus du Sautoy, *The Creativity Code. How AI is Learning to Write, Paint and Think*, London 2019.

3 Hans-Ulrich Gumbrecht, *Kreativität – Ein verbrauchter Begriff?*, Munich 1988.

4 Andreas Reckwitz, *Die Erfindung der Kreativität. Zum Prozess gesellschaftlicher Ästhetisierung*, Berlin 2012.

5 Hanno Rauterberg, *Die Kunst der Zukunft. Über den Traum von der kreativen Maschine*, Berlin 2021, p. 30.

6 Margret Boden, *AI. Its Nature and Future*, Oxford 2016, p. 68.

7 https://www.aiva.ai

8 https://openai.com/blog/jukebox/

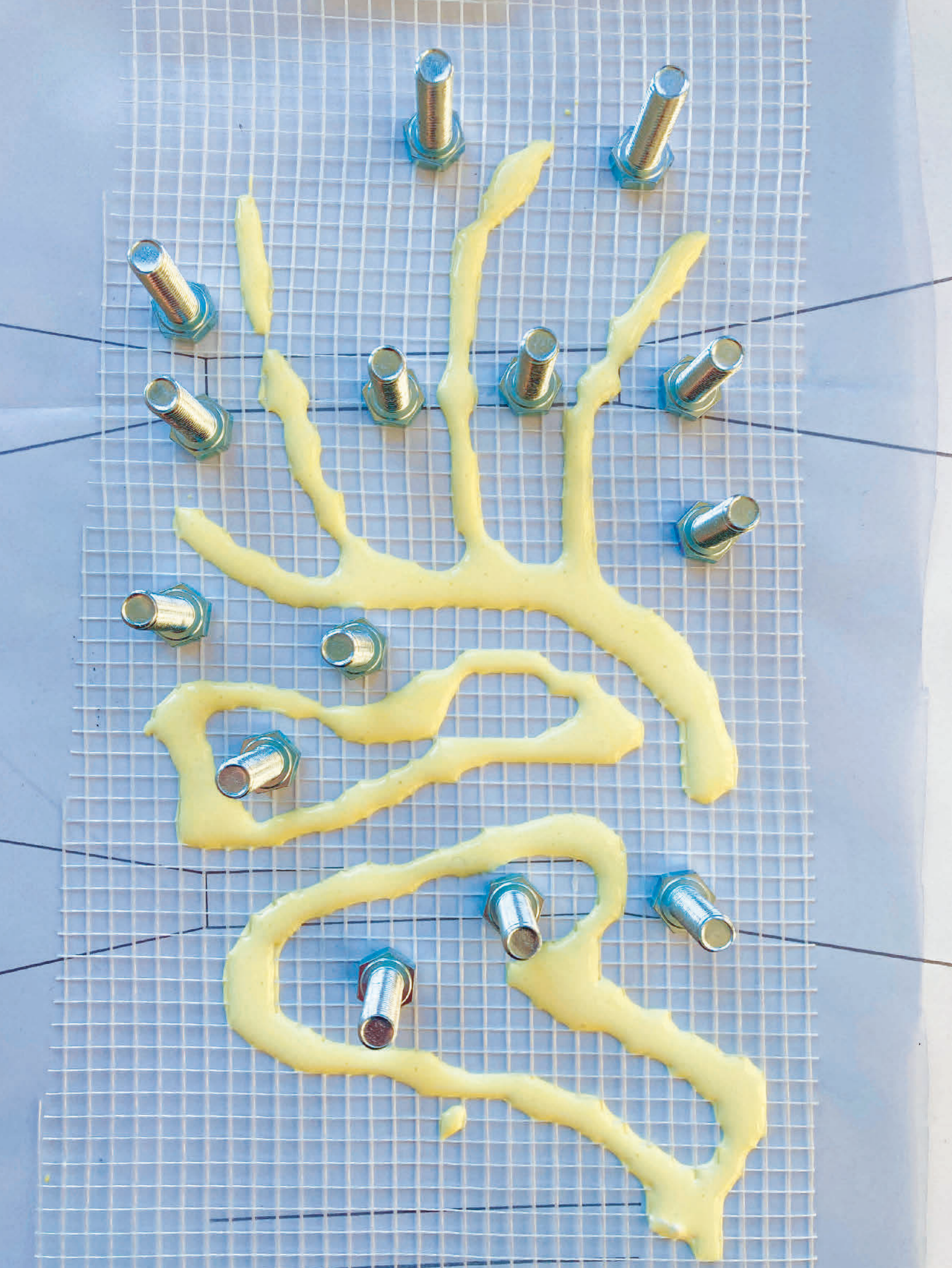
9 Orlando Budelacci, *Mensch, Maschine, Identität. Ethik der Künstlichen Intelligenz.* Basel 2022, pp. 118–125.

10 https://www.midjourney.com/home/

11 https://openai.com/dall-e-2/

12 Richard Sennett, *The Craftsman*, New Haven and London 2008, pp. 119–146.

↓ **Fig. 3 Kim da Motta, *How would I walk, had I never seen a woman walk?,* Bachelor's project for Lucerne School of Art and Design, 2022**



PROGRAMMES & DIDACTICS

Inquiring Instead of Guessing

Sustainable Didactics in the Textile Design Programme

Lilia Glanzman

Self-organised learning and individual learning pathways require new didactics – and thus also a new self-understanding among teachers. As their role is to coach classes of increasingly heterogeneous composition, feedback from their students becomes increasingly important. A look at the considerations of the Textile Design programme, which trusts in evaluations without grades.

Higher, faster, further – in our world shaken by crises, this motto is faltering. Certainly, the critique of economic growth is nearly as old as the phenomenon itself. Yet with the latest climate reports, using resources carefully and distributing them equally has reached the next level of urgency.

The term ‹degrowth› (or post-growth) is understood to designate an economic framework and form of society which has the goal of well-being for all and preserving the basic ecological needs of life. The first international Degrowth Conference for ecological sustainability and social equity took place in Paris in 2008 and established the English term in the international debate. Degrowth aspires to depart from the economic and societal guiding principle of ‹higher, faster, further› and its consequences like acceleration, excessive demand and destruction of the environment, toward values like mindfulness, solidarity and cooperation. The goal: a global society which enables everyone to lead a self-determined life in dignity.

Encouraging a sustainable system of values

Sustainability has long occupied the Textile Design programme because of the early globalization of supply chains. In the current curriculum development, which we implemented starting in autumn semester 2022, we are further strengthening this field of competence. For one thing, we are instilling all modules with the corresponding Sustainable Development Goals of the United Nations. Yet, sustainable trade and circular systems are based above all on a system of values in which growth, numbers and profits do not come first.

To anchor such thinking and acting credibly and to frame them positively, a system change must be initiated: Our students should formulate their own position, and it is up to us to reinforce and accompany the development of this position – which we do by renouncing the use of numerical grades. Why? Because they have no room in a sustainable framework, as they fuel precisely this

competitive striving for ‹higher, faster, further›. Therefore, we rely on a system that is based on the differentiation between *passed* and *failed*.

Instruction with grades is outdated for other reasons as well, as Björn Nöte and Philippe Wampfler relate in their work «Eine Schule ohne Noten. Neue Wege zum Umgang mit Lernen und Leistung» [A School without Grades. New Paths for Dealing with Learning and Performance]. Here are three theses in favour of meaningful alternatives. First: Learning requires motivation and trust in one's own strengths. Grades make learning more difficult by shifting the focus to evaluation processes and weaknesses. Second, tests conclude learning processes rather than launching them – afterward, emotions pertain only to the grades, and no longer to what was learned. And third, experiencing one's own competences, conversations, feedback and formative assessments encourage learning as a process in a targeted way.[1]

This final point is of the essence for our intention to teach without grades. Of course, clear criteria for the quality of a work are also necessary if no numerical grades are given – and feedback becomes even more important. All the more so because the new curriculum reinforces self-organised learning and individual learning pathways. This requires new didactics as well as an expanded self-conception among instructors. Their role shifts even more toward coaching heterogeneously composed classes. Similarly essential in this context is students' feedback to each other.

Developing learning processes in a creative, self-regulated way

«Feedback takes place – consciously or unconsciously – whenever people encounter each other. And this happens on three levels: verbal, nonverbal and paraverbal, as described in the Transmitter-Receiver Model by Claude Shannon and Warren Weaver», says Andreas Cincera, who has analysed feedback intensively for twenty years. Because «teaching must be formative», he also supports instruction without grades. «That's why a summative statement does very little good and is only seemingly objective. Working with verbal feedback means making substantive statements about the quality of the process and the result and is thus always topic-oriented.»

Andreas Cincera is head of advanced education at the Bern University of Applied Sciences and teaches the foundations of psychology and musical education/didactics as part of the Master's programme at the HKB. He also teaches «Gestaltung des Feedbacks und der Gesprächsführung im Unterricht» [Designing Feedback and Conversational Skills for Instruction] at the Lucerne University of Applied Sciences and Arts' Centre for Learning, Teaching and Research (ZLLF). In this course he conveys the method of constructive critical feedback, the differentiation of interrogative forms, as well as idiolectic conversation skills suitable for instruction which are process-oriented and student-centered. He is motivated by the desire to accompany students with suitable forms of communication so that they can further develop their learning processes and projects creatively and effectively in a self-regulated way. «This is especially imperative in the context of teaching without grades», says Andreas Cincera.

This is why he advocates WIN feedback: «It is a balanced model that emphasises the positive aspects of a person's performance while showing and initiating potential improvements.» WIN stands for *Wahrnehmung* [perception], *Interpretation* [interpretation] and *Nachfrage* [inquiry]. This method was developed by Jenna Müllener and Ralph Leonhardt at the Pädagogisches Praxiszentrum (PPZ). In addition to a qualitative empirical survey in the framework of Jenna Müllener's dissertation in 2005, the method's application in everyday instruction with numerous users was depicted for the first time in a publication issued by the PPZ in 2009.[2]

The feedback method is based on findings from various disciplines. Among them, on Heckhausen's motivation theory, on constructivist didactics, and on the communication theories of Ruth Cohn. Central to the method is communication in I-messages, as well as remaining on the factual level, as Schulz von Thun described in his 1981 «Communication Square». It also entails the clear separation between observation and interpretation, as well as the adoption of an appreciative attitude. «This acknowledgement reinforces the counterpart's ability to accept themselves, and thus simultaneously the process of self-empowerment, self-efficacy, as well as resilience.» It is accompanied by empathetically connecting with the life reality of one's counterpart: «Ultimately, the point is to pay attention to nonverbal signals and the setting, in order to guarantee basic conditions for possible approach behaviour», adds Andreas Cincera. And what is decisive: «Always inquire, consistently and openly.»

Strictly Open Inquiry

The method of WIN feedback is directed toward an encouraging, formative kind of feedback. It is especially to be recommended when something critical is to be said. WIN feedback follows a

precise protocol. First the person giving feedback offers concrete, descriptive observations, then they interpret these observations and make transparent their own positioning, assessment and subjective classification or evaluation. The final step is a strictly open inquiry of the counterpart as to how this reflection sounds, is read, or received. The person receiving the feedback also has their say and can express their reflection. Only then is a definitive evaluation offered. «This approach is perceived to be highly appreciative in feedback conversations», he says. For: The person criticised can understand a critical point much better when perception is clearly separated from interpretation.[3]

This open inquiry, in addition to the response, that is, the feed-back, is important above all for the feed-forward: It gives indications and suggestions for the direction of further processing – in short, asking rather than guessing. «As a coach guiding learning, I do not have to hypothesise», says Andreas Cincera. During the inquiries after feedback, I can offer plausible explanations about why such actions took place in such a situation. Then the critique can even be revised. «This method also generally helps to speak more openly about critique without the need to offer any justifications». And: Designing feedback in this way is an important prerequisite for reflection.

Idiolectics: Cooperation instead of competition

Finally, a particular form of this inquiry is the idiolectic interview: Idiolectics is a tool of management that picks up on the counterpart's own language and inquires about its individual meaning. For: Coaching is effective – but only when it is aligned with the individual requirements of the recipient and adapted to the structure of their personality.[4]

In this way conversations conducted idiolectically can be used as an effective method, for instance, to provide advice about professional or artistic challenges, and in education to guide processes of learning or change. Providing solidarity and support fundamentally counteracts the tendency to separatist thoughts of competition in the art and design sector. To date, idiolectics has been applied by persons with an educational mission, in all kinds of consulting, in therapy and other health professions, and by persons in management and human resources. «Research on the method is currently underway and so far, has suggested high efficacy», says Cincera. Such idiolectic conversations can take place over very short periods as ‹idiolectic windows› or comprehensively over a longer period in keeping with a narrative structure.

Important: The point is never to understand the narrator comprehensively. The words, and especially the paraverbal and nonverbal signs, as well as the preverbal signs evoked in bodily processes through empathy, flow into interactions and interventions which are derived from these intuitively and reflectively. The sovereignty remains consistently with the narrator. This differentiates the method fundamentally from a consultation during which one's own specific expertise is placed at the disposal of the counterpart. It is a new didactic instrument that renders the equivalence of the coach and the person being coached – and thus creates the perfect substrate for sustainable teaching and values like mindfulness and cooperation. Especially in the context of teaching without grades, as it is practiced in the new curriculum of the Textile Design programme, such new didactic instruments and thoughts are needed.

1 Björn Nölte and Philippe Wampfler, *Eine Schule ohne Noten. Neue Wege zum Umgang mit Lernen und Leistung*, Bern 2021.

2 Jenna Müllener-Malina, *Beurteilung der Unterrichtsqualität von Lehrpersonen. Optimierung von Feedbacks bei Hospitationen und Mitarbeiterbeurteilung*, phil. diss. [typescript] University of Zurich 2002, pp. 31f.; Jenna Müllener and Ralph Leonhardt, *Erfolgreich kritisieren im Berufsalltag*, Uster 2009.

3 Cf. Müller and Leonhardt.

4 Daniel Bindernagel, *Schlüsselworte. Idiolektische Gesprächsführung in Therapie, Beratung und Coaching*, Heidelberg 2021.

The Permanent Beta Curriculum

Between Clear Orientation and a Permanent Development Process

Klaus Marek

«Helllooo! What did you learn last week?» For two years now I've been hearing this question weekly from Daniele Catalanotto, a service designer and alumnus of the Master's programme in design at Lucerne School of Art and Design. Ever since we began developing the new Bachelor's programme in Spatial Design, we agreed that I would accompany the process by collecting my thoughts and lessons learned, with the goal of publishing them someday. The contribution to this issue thus suits me well: A first occasion to attempt compiling this collection with many open endings.

The process of developing a curriculum does not end with the completed curriculum.

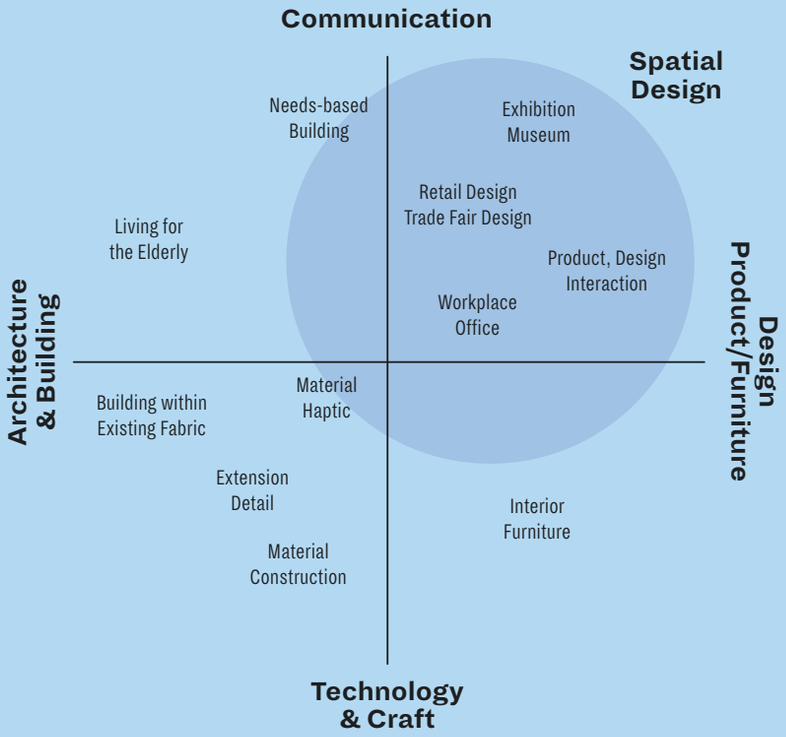
The development of the curriculum follows the iterative design process

The process of developing a curriculum does not end with the completed curriculum. The implemented solution – no matter how seriously and conscientiously it was developed – is a prototype that needs to be tested and evaluated. The findings from one pass thus constitute the basis for further development toward an improved curriculum. If you are lucky, there is already a strong basic consideration as a starting point. So start with expert interviews and desk research on existing study programmes and possible professional fields, consider the existing administrative structure of the university and its overall curriculum; be creative, model and visualise from this a coherent curriculum, but observe it with a permanent beta mindset, refine it constantly on the basis of feedback from students, instructors and experts, and in view of changing complexes of questions facing society and professional praxis.

Spatial design is concerned with temporary and flexible spaces as well as with communication in spaces.

Linkage makes the difference

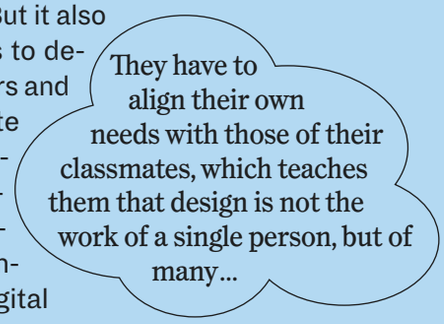
The development of the Bachelor's programme in Spatial Design began with a diagram in the anniversary booklet «75 Jahre Innenarchitektur 1942–2017» published by the VSI/ASAI, the Association of Swiss Interior Designers and Architects. The diagram spans a coordinate cross – with one axis extending from «Architecture & Building» to «Design, Product/Furniture» and the other from «Technology & Craft» to «Communication», yielding four fields of activity in interior architecture.[1] In contrast to traditional interior architecture, which can be positioned primarily in the quadrant of «Architecture & Building» and «Technology & Craft», spatial design is located primarily in the quadrants of «Communication» and «Design, Product/Furniture» (fig. 1). Spatial design is concerned with temporary and flexible spaces as well as with communication in spaces. For spatial design, however, communication also means moderating and accompanying the dialogue between the affected



↑ **Fig. 1 Occupational fields in interior architecture (VSI. ASAI./Eckert, J. et al., 2017) with the categorisation of spatial design; however, the occupational field of spatial design must be expanded (see fig. 2).**

↓ **Fig. 2 Spatial design extends the spectrum of fields of activity – from the physical to the digital space, from non-public to public space.**

stakeholder groups in developing spatial concepts. And this requires an expanded set of competencies, for instance, when the task is to detect the needs of users or to integrate them into the design process, or when analysis reveals that no new interior architecture is needed at all, but rather spatial interventions that have nothing to do with building. The Bachelor's programme in Spatial Design thus does not occupy a specialized area of interior architecture, as, for instance, construction in existing contexts or scenography, for which the solution is already prescribed; instead, it links competencies from traditional interior architecture with important future competencies and thus extends the spectrum of potential problem-solving strategies and fields of activity – from the physical to the digital, from the non-public to the public space – and thus also the career prospects of the programme's graduates (fig. 2). The course of study thus teaches competencies both in spatial conceptualisation and in designing, as much as in visualisation and realisation. But it also integrates tools and methods to detect the complex needs of users and stakeholders, to orchestrate flows in space and to conceptualise and realise design interventions. A third and final emphasis is teaching competencies in design of and with digital media, which have already become established in all kinds of areas of life, or which promise new possibilities for use in the form of virtual spaces and realities (fig. 3).

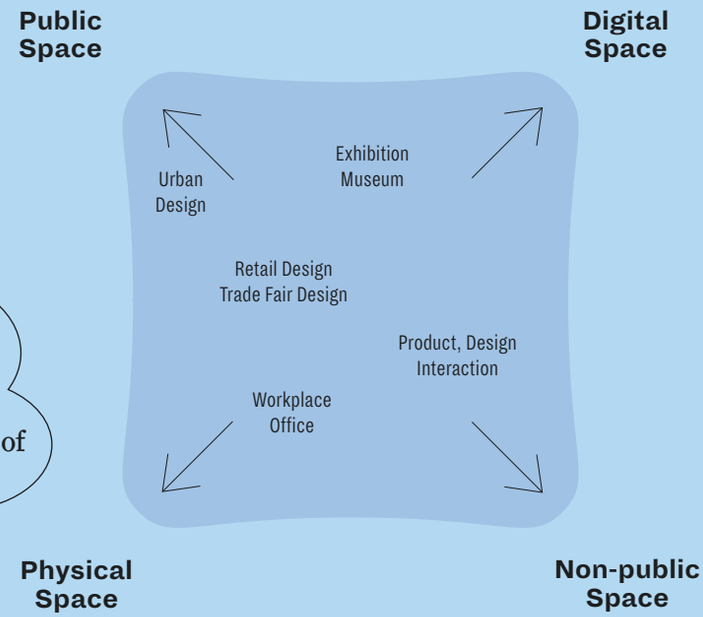


The orientation of the programme can be explained best through appropriate examples

The fields of activity in which the graduates of the Bachelor's programme in Spatial Design can apply the competencies they acquire are obvious: workplace design, design and health, retail design, in tourism, in museums, in the design of public spaces, etc. – in areas where people, their needs, experiences and adventures are the primary focus.

Workplace design, for instance, is about exploring the needs of personnel, their interactions and forms of cooperation, integrating them into a spatial concept and realising them in a design. The possibilities of digital media are taken into account in these processes, for example, to visualise the allocation of workplaces or meeting spaces, or in the design of hybrid or mobile workplace solutions.

In the very first year of study, Spatial Design students learn the tools and methods of workplace design by conceptualising and designing their own studio. They have to align their own needs with those of their classmates, which teaches them that design is not the work of a single person, but of many – and that such a complex undertaking in which the needs and values of various stakeholders – other students, instructors, and also the university administration – as well as structural parameters must be collected and analysed, and potential solutions developed in a collaborative process. From the very outset, design and constructive abilities are required, along with knowledge about materials, colour, light and acoustics, in order to derive, elaborate and realise a design proposal from these findings (fig. 4).



The holistic approach of spatial design is intriguing, but can also be dizzying: Methods and principles offer orientation

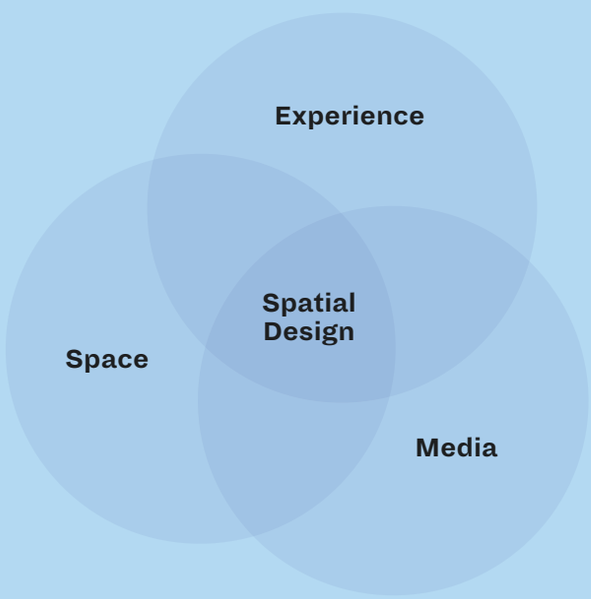
Spatial design is concerned with communication in space, with the construction of space, with objects, with shapes, proportions, colour, materials, light and sound, with interactions and spatial flows. However, spatial design is neither graphic design nor object design or interaction design – and not even traditional interior architecture covers it completely. Rather, the ability to integrate all of the aspects operating in an environment into a useful and sustainable whole is the key competence of spatial designers (fig. 5).[2]

This holistic approach intrigues our students, but can also make them dizzy. They can lean on parallels to other disciplines for support. The relation between spatial design and service design, in terms of their process and methods as well as their principles, is described by Davide Fassi, Laura Galluzzo and Oliver Marlow in their paper «‹Experiencing and Shaping›. The Relations between Spatial and Service Design». They explain that spatial design as a discipline that deals with the transformation and manipulation of space is concerned not only with the perception of a space, but also with the system of actions and interactions that take place within it.[3] Of course, the principles of service design cannot be simply transferred to spatial design; the relationship is rather a mutual enrichment from which a specific approach can emerge. Yet, the attempt to adapt the principles of service design[4] to spatial design has a certain appeal: (1) Spatial design is orientated toward people: it takes the experiences of all people affected by a project into consideration; (2) The spatial design process is collaborative: Stakeholders from different areas and with different functions are supposed to be actively involved; (3) The spatial design process is iterative: It follows an explorative, adaptive and experimental approach that iteratively leads to realisation; (4) Spatial designers work sequentially: They visualise and orchestrate interactions in space as a sequence of connected actions; (5) Spatial design is concerned with real problems: Needs should be explored in reality, ideas made experienceable and testable in reality; (6) Spatial design is a holistic approach: Spaces, interactions and processes should address the needs of all stakeholders throughout the entire process; (7) Spatial designers utilise spatial, digital and constructive design competencies: Concepts are worked out, designed and realised in a specific space.

> This holistic approach intrigues our students, but can also make them dizzy.

↑ **Fig. 4 Workplace design is a possible activity area for spatial design; project example: First-semester students in the Bachelor's programme in Spatial Design work together to plan their own studio.**

↓ **Fig. 3 The Bachelor's programme in Spatial Design teaches competencies from the areas of spatial design, experience and service design and from the new media.**

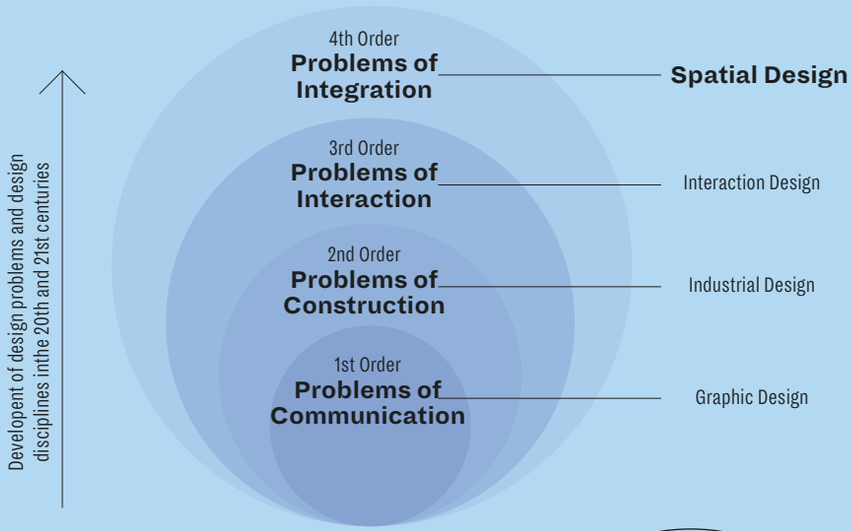


Developing a curriculum is like building a house – it is only as good as what happens inside

During the development of the curriculum, architectural thinking allows us to jump back and forth between overarching concepts and details in order to shape a coherent whole without losing sight of the big picture. The first thing needed is an architectural concept (orientation of the study programme) that fits in well with the surroundings (demarcation from existing study programmes at

other institutions); then a clear, stable support structure that allows flexibility (basic curriculum concept); an idea of what the interior architecture has to do (module descriptions as translation of the competencies for professional qualification) and an attractive, flexible design of the interior spaces (projects and courses in which the competencies are taught, as well as instructors to teach them); and finally, a façade (external communication).

But as in spatial design itself, the created space is only as good as what is possible and can be experienced within it. But since the success of the curriculum can be examined, and if need be, adjusted, only while the programme is in session, flexibility is essential. Therefore, the curriculum should be structured as openly as possible without jeopardising stability and orientation, in order to provide room for the expertise of the instructors – after all, they are not robots, but ideally agile coaches, and the curriculum is no industrial technical process, but a structure that is supposed to facilitate individual learning.



↓ **Fig. 5 «Spatial Design and the Four Orders of Design»; adapted from Richard Buchanan's «Interior Design and the Four Orders» (see note 2).**

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‹Student Journey› is more than a buzzword

Studying is often regarded as a student journey – derived from the term customer journey, which service design uses to visualise the chain of experience from the users' perspective. The concept includes the phases before, during and after the use of a service. The fewer the negative experiences, the greater the satisfaction, the higher the recommendation rate. Up front: I am a fan of this view. Not that I believe everything must be subordinated to the positive experiences of our students – but there are aspects that make this approach advisable: How good and timely our communication with students is, how we organise instruction, how transparently and comprehensibly we evaluate performance, how respectfully we give feedback, what opportunities for exchange and feedback we offer.

And the journey begins with the students' very first contact – even before the admissions process: The future students should feel from the first moment on that they are taken seriously, well advised and at ease. They are beckoned with the reward of important first-hand feedback: How did the applicants find out about the programme? Does the information, for instance on the homepage or flyer, appeal to them? How are they understood? How can we shape the admissions process such that students enrol enthusiastically and are eager to begin with their studies? – This last aspect should continue during the course of the programme as well: For enthusiastic students are more likely to be open to new ideas, learn faster, develop exciting projects, and ultimately are more likely to gain a foothold professionally.

The future students should feel from the first moment on that they are taken seriously, well advised and at ease.

...enthusiastic students are more likely to be open to new ideas, learn faster, develop exciting projects...

... and ultimately are more likely to gain a foothold professionally.

1 Jan Eckert et al., «Zukunft – Innenarchitektur 2017–2042», in: *75 Jahre Innenarchitektur VSI.ASAI. 1942–2017*, ed. Vereinigung Schweizer Innenarchitekten und Innenarchitektinnen VSI.ASAI, Zurich 2017, pp. 64–73.

2 Richard Buchanan, «Surroundings and Environments in Fourth Order Design», in: *Design Issues* 35 (2019), no. 1, pp. 4–22, doi:10.1162/desi_a_00517.

3 Davide Fassi, Laura Galluzzo and Oliver Marlow, «‹Experiencing and Shaping›. The Relations between Spatial and Service Design», conference paper, *ServDes2018*, Milan 2018.

4 Marc Stickdorn, Markus Edgar Hormess, Adam Lawrence and Jakob Schneider, *This Is Service Design Doing*, Sebastopol 2018.

From Flowing Data to Tailor-made Sculptures

Teaching Design and Data Competencies for the Data Design + Art BA

Isabelle Bentz

Our world is changing. It's getting warmer, our life is getting more digital, and we're seeing the drawbacks of globalisation. We are over-informed and yet we have many questions for which search engines cannot provide satisfactory answers.

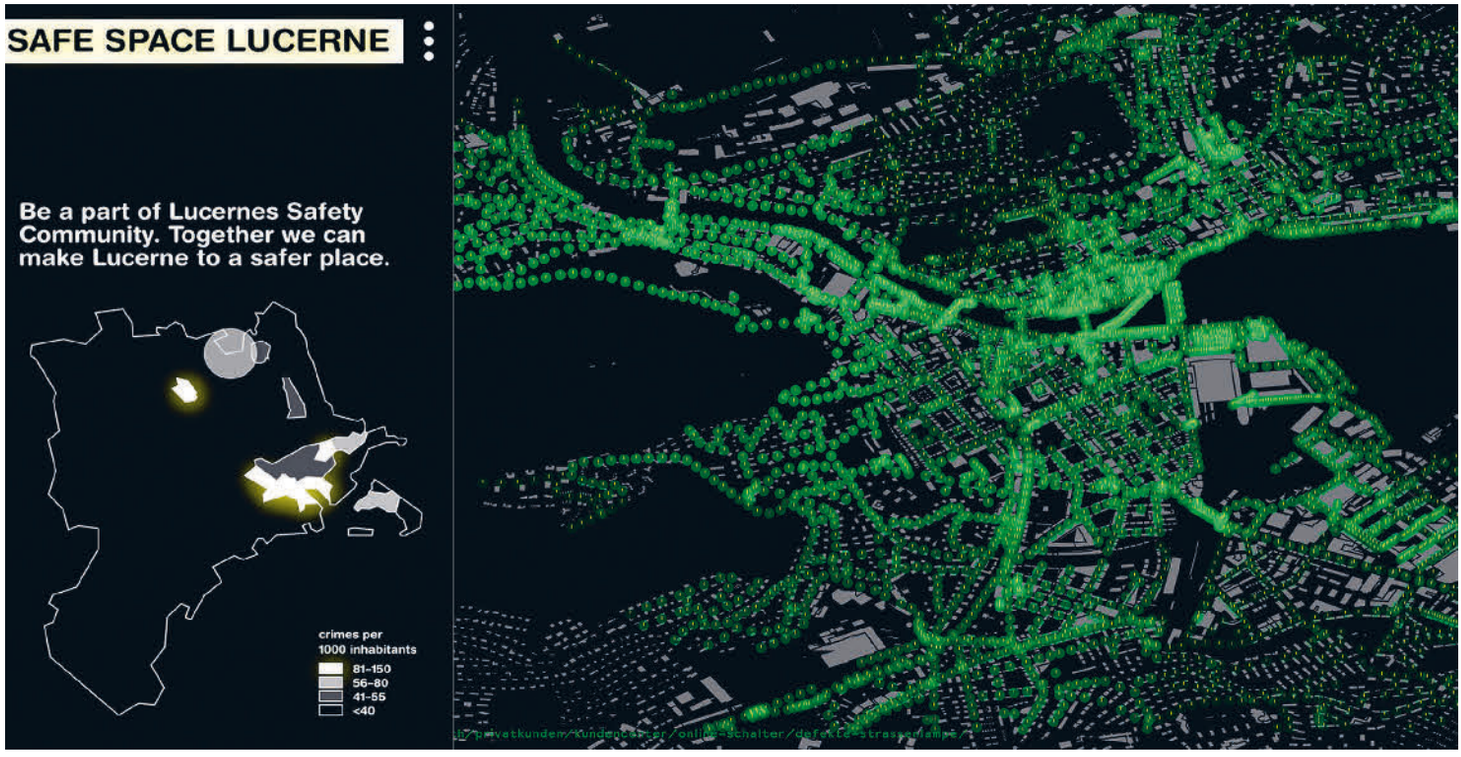
With every digital act we generate data and thus create a reflection of our society. Can we use these to tell stories that help us to better understand the changing world? How can we link, interpret and render data so that changes become visible? And how can complex interrelationships be made experienceable and encourage people to think, discuss and act? How can an over-informed and overstimulated society be reached at all, let alone spurred to action? Such questions and many more are pursued by the students in the Data Design + Art Bachelor's programme.

> Can we use these to tell stories that help us to better understand the changing world?

> What role do data play from the perspective of design and art?

At the very beginning, the question arises as to what data have to do with design or art. But perhaps this question must be posed in a different way to approach an answer: What role do data play from the perspective of design and art? Why are they important, and what are data, anyway? For the Data Design + Art programme they are a material from which knowledge and stories can be gleaned – none that is easy to find and comprehend. Data change over time and space. They can be as fluent or fleeting as they are solid. Their physical state changes when their context changes so that they thus acquire new meaning. And they appear in all kinds of sizes – from «no data» to «small data» all the way to «big data»; after all, no data are data as well.

The constantly increasing relevance of data in science, the economy, and society has yielded an abundance of tools for their visualisation. Yet how do we learn to deal with data responsibly, to make use of them meaningfully, and to find a suitable language for dealing with them? Our students are sensitised to the question of what data might be missing in order to understand something of the world and to be able to tell stories. Acquiring this understanding requires time, and for DD+A the way there is to repeatedly switch between different media and methods. The very concept of data as material implies also working in traditional, analogue ways, and not always with the computer. Creation that takes place by hand triggers a process of reflecting on data and knowledge-sharing.



↑ **Fig. 1 Dynamic map with interactive application. Real-time linking of lighting data of the city of Lucerne with subjectively perceived safety of users. Project by Stéphanie Kiser, 2021.**

Here the students learn a wide variety of techniques and tools that exist beside cognitive and computer work.

There are different approaches for how people can confront data. Depending on whether they proceed from a relevant study question, a certain objective, or a visual experiment, the role of data use is attributed a very specific meaning. The curriculum of the Data Design + Art programme reacts to this by differentiating in the first two years of the programme between three basic types of modules: Play, Think and Share.

...after all, no data are data as well.

Play

The Play modules are a kind of open playing field for data experiments. They take place on various levels – in terms of content, technically and aesthetically, with the focus on the human perception of information. A frequent starting point is the question as to what data are missing for us to impart an image of our society and environment that is as holistic as possible. The first task is to clarify what investigations should be undertaken to acquire data and their depiction, or, more openly, to establish all of the places where data can be found, and what information is even necessary. Precise observational skills, openness for unconventional methods and critical reflection play just as important a role in this as the utilisation of sensors and digital tools.

Stéphanie Kiser, for instance, a student in her third semester, pursued the question as to how people's sense of security in Lucerne could be depicted.

...precise and insightful data handling...

...data as material...

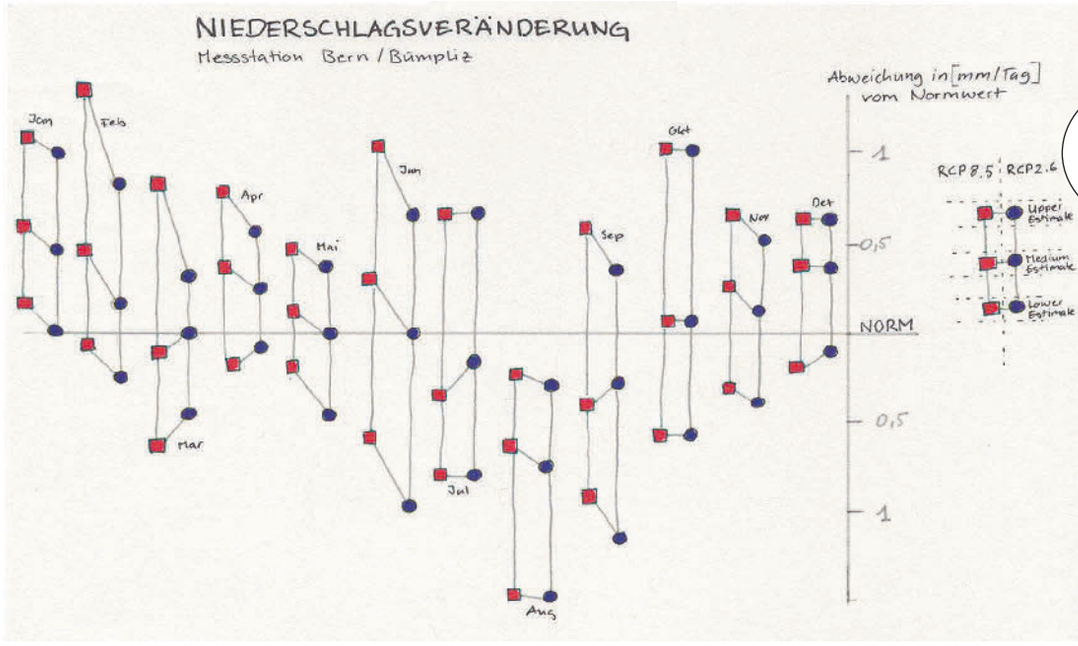
After many walks around the city...

After many walks around the city, broad-based research for useful data, and multiple visual experiments, a map application (fig. 1) emerged which visualises the lighting data of Lucerne. However, she found the depiction of merely lighting alone not informative enough. Instead, the application was supposed to simultaneously query the subjective sense of security of its users in real time and make the collected values directly visible on the map. The result is an interactive map that creates a relationship between objective and subjective data on the urban space.

Think

In contrast to the Play modules, the Think modules generally proceed from data that already exist. The primary purpose of these modules is for students to learn precise and insightful data handling. Working with data experts as Data Coaches, like representatives from the statistical agencies of the cantons of Lucerne and Zurich, from the sciences or partners from industry, data are investigated, contextualized and research questions developed based on students' own representations. In smaller groups called Data Circles the foundations of the data used are discussed: their acquisition, contexts, and ethical issues. Studying Data Design + Art thus also means taking three years' time to intensively examine current topics, to acquire solid knowledge with the help of experts, and to impart this knowledge in a visually understandable way.

Analogue sketches to represent information play an important role, especially at the start of the



Analogue sketches to represent information...

← **Fig. 2 Information graphic analysis sketch on current climate research data. Project by Tim Zaugg, 2021.**

programme. They enable the students to think freely and to draft as many schematic or pictorial forms of representation from a simple dataset in the shortest time possible, and to test these for the purpose of content and formal analysis. Later, three-dimensional and interactive methods for the visual analysis and rendering of information are also integrated into the design process. The sketch (fig. 2) from Tim Zaugg, 1st year student of DD+A, shows an information graphic analysis with data from current research on the climate in Switzerland. For this meteorological data are investigated, processed and analysed visually, initially by hand and then with the use of data visualisation tools and finally interpreted. The depictions illustrate two representative climate scenarios based on changes in precipitation for the year 2030, each with their maximum, average and minimum estimates. For this the new RCP Scenarios[1] are deployed, which are based on greenhouse gas concentrations and emissions. The RCP scenarios were introduced, discussed and implemented along with other scientific tools in cooperation with the Data Coaches.

Share

The Share modules focus on the dissemination and communication of information by means of various formats for representation and narration. The students proceed from an investigation on a subject of their own or link back to one of the previous Think modules to search for a visually effective form to impart their findings or action targets in an understandable and unified way. From this yet another new perspective emerges, which no longer proceeds from the data themselves, but from those they address, from questions about the goals of communication and the calls to action they entail.

Data Circles

...dissemination and communication...

Through this process, the prospective data designers and artists develop an awareness of various user groups, regardless of whether they make complex contents accessible to the broad public, prepare a visual dataset for a scientific context, or intend to pursue political data activism.

...graphically, in code, with haptic models, or as walk-through installations in space...

For this they deploy a wide variety of statistical, animated and interactive information visualisations to complement story-telling methods in the Share modules. They realise their ideas graphically, in code, with haptic models, or as walk-through installations in space.

...inspiration in the materials, machines and technologies...

The analogue and digital workshops and the MediaDock of the Lucerne School of Art and Design, located directly below the studio of the Data Design + Art programme, are the central base for these works. The students find inspiration in the materials, machines and technologies available here, use and combine these in surprising ways, and in so doing find innovative routes for rendering and communicating data and information – also in space. Precisely because data occur primarily in a digital form, physical locations and the durability and stability they provide are becoming ever more important for the Data Design + Art programme. The location

...in an understandable and unified way...

↑ **Fig. 3** ***Geh mit mir*** **[Walk with Me], walkable data sculpture on the secondary phenomena of the Corona pandemic by 2nd semester students, 2021.**

Intensive exchange with various data experts…

is both a site of action and a meeting-place for exchange.[2] One format we work with here is data sculptures, that is, three-dimensional depictions of data which people can consider in relation to themselves. They are one possibility to give a form or face to abstract information so that it can be experienced, comprehended, and even walkable. This is true for both the finished sculptures and the process in which the students create them. The data sculpture *Geh mit mir* [Walk with Me] (fig. 3) was conceptualised and realised for die *Werkschau* 2021 by the very first class of DD+A students. How did our society and we ourselves experience the pandemic and its secondary phenomena? What stories do they tell one year afterward? The walkable sculpture invited visitors not only to look back on the Corona year they experienced while they walk through, but also to reflect together on what changes it brought within society and how we can deal with them. Data sculptures thus create sites in which people stop and share with each other. Here the data sculpture is not only an informer and attractor, but also an initiator of conversations which are more concentrated and committed than is often the case in the digital space.

What stories do they tell one year afterward?

Data sculptures thus create sites…

DD+A as a Platform

From the very first semester, the curriculum of the DD+A programme integrates experts from science, industry and non-profit organisations. They bring their own data into the studio and function there as Data Coaches in direct cooperation with the students who are processing their data. Intensive exchange with various data experts thus becomes a catalyst for the students' data competency. As a result, they acquire their own expertise with a view to developing research questions and their (audio)visual realisation.

This close cooperation with external experts is important because it not only prepares graduates for a certain labour market, but also helps them to actively shape this market. For example, while the data dashboards frequently used today are a means of depicting the acute status of generally accepted facts, they are less suitable for open discussions about data and their meaningful use. Here formats like data sculptures, also on smaller scales, have proven helpful and accessible. The Data Design + Art programme is thus expanded from a mere training programme into a platform with the third mission of bringing people together so that they can exchange and collectively seek new, responsible forms of imparting knowledge and data in a changing world.

1 Representative Concentration Pathways, http://www.pik-potsdam.de/~mmalte/rcps/ (retrieved 23 Oct 2022).

2 Cf. Yanni Alexander Loukissas, *All Data Are Local: Thinking Critically in a Data-Driven Society*, Cambridge, MA 2019.

The Corresponding Groups Eco!, ¿Wo? and Post! post?

An Emancipatory Practice of Art Education

Sabine Gebhardt Fink

The central aspects in StudioLab are collaborative artistic practices and de-colonial research approaches.

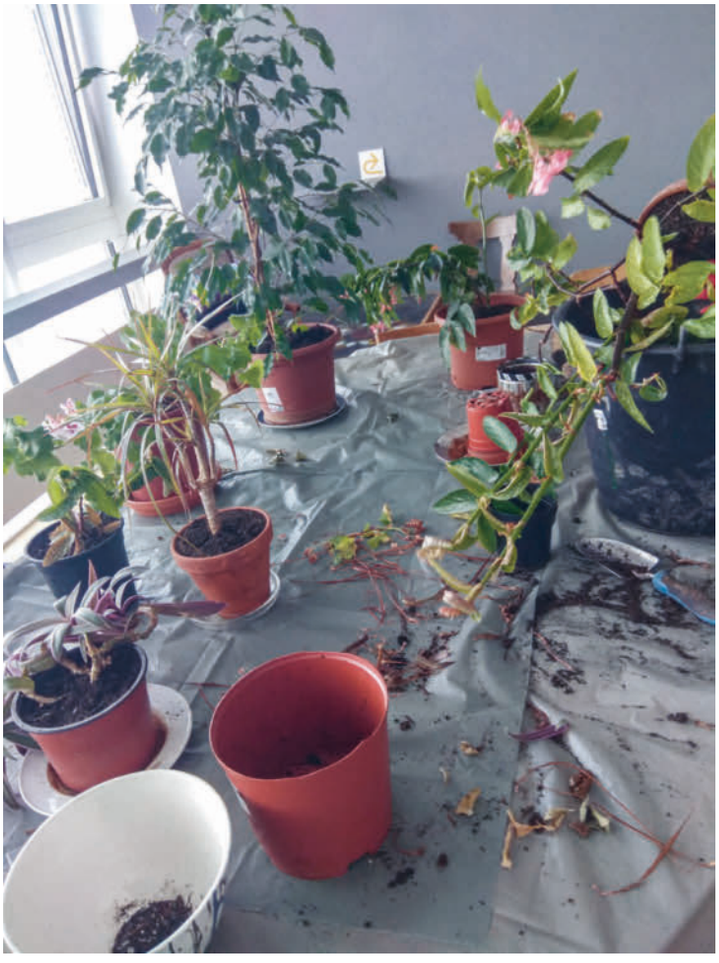
← **Fig. 1 Gang, *Table for Tinguely*, performance during the exhibition *Bang Bang*, Museum Tinguely, Basel, photographed by Lena Eriksson, August 2022**

In the StudioLab of the Master of Arts in Fine Arts programme, artistic strategies and contemporary discourses for our future social cohabitation are envisioned and developed. The central aspects in StudioLab are collaborative artistic practices and de-colonial research approaches.

Our societies of the Global North see themselves compelled to address fundamental changes in order to arrive in the 21st century with new forms of social cohabitation that deliberately include animals, plants and other «critters», as Donna Haraway calls them.[1] These urgent current discourses are taking place in the StudioLab of the Master of Arts in Fine Arts programme, whose core is cooperation that spans academic years of study as well as Majors. Organisationally, a form of three corresponding groups within a single StudioLab has emerged in contradiction to traditional concepts of education. This form of teaching in the StudioLab, in the sense of mutual, responsible action, or an approach detached from concepts of artists' individualistic career paths, is embedded in contemporary debates – like those that took place around the «lumbung» practice at *documenta fifteen*.[2]

This form of teaching in the StudioLab, in the sense of mutual, responsible action, or an approach detached from concepts of artists' individualistic career paths, is embedded in contemporary debates...

What distinguishes the specific structures of the StudioLab? To answer this, I would like to refer to Sollfrank's analysis of the OBN (Old Boys Network). She describes it as a «cyberfeminist network, that



↑ **Fig. 2 Plants in the kitchen, view from the studio space of the Master Fine Arts Lucerne, photographed by Lena Eriksson, August 2022**

was active from 1997–2001».[3] What was special about it was its structure, built on micropolitical currents. According to Sollfrank, it was precisely these currents which proved to be relevant for a potential connection between politics and aesthetics. Continuing her explanation of OBN, she states: «it required involvement and a sense of connection to the field in order to perceive the driving forces underneath the surface.»[4] In the same way that OBN used the term cyberfeminism despite its refusal to define it conclusively, the StudioLab, too, questions ‹formalized politics› and has the aim to «move to a different territory, filled with the desire to accept disagreement within a framework of trust»[5] and thus shifts its societal, acute issues into a broader field of cultural production.

For whenever future forms are to emerge, a concept must encompass a «multitude of interacting movements that permeate the social field, or […] collective structures and associations that are real without being representative».[6] Similar to a flowing organisation that always remains flexible and is supposed to serve the needs of the changing membership and topics, the StudioLab is to remain changeable: «between a network, a group, a temporary collective, a structure, an infrastructure, or a dust cloud».[7]

With the corresponding groups of *Eco!, ¿Wo?* and *Post! post?*, artistic strategies and research approaches in the StudioLab currently include three areas: ecocriticism, post-humanism and ephemeral mediation. These are the nodes of the StudioLab. The StudioLab's research is an artistic practice to intervene in the societal context, through which artistic strategies can intervene in different institutions and networks. Carefully structured local cooperations lasting for several years are an essential component of these corresponding groups. One of our partners is Enrique Ramirez, a visiting professor who proceeded from poetic descriptions and critical observations of the environmental damage caused by our everyday lives to develop a new visual practice in exchange with students. He comments on this work as follows: «*Where we live* addresses the landscape as a critical place and potential common space, both among humans and with all living things.»[8] Student Hannah Beilharz remarks on her work, which emerged in the framework of cooperation with Enrique Ramirez: «Surface-Below is a video and sound work exploring the transformative potential of ecological grief within the context of the climate crisis. The work examines the philosophical and lived realities of climate change as a crisis fundamentally altering our relationship to the world, and the possibilities that this shift offers.»

↑ **Fig. 3: StudioLab group *¿Wo?*, workshop with visiting professor Enrique Ramirez and Sabine Gebhardt Fink, photographed by Enrique Ramirez, March 2022**

Varsha Nair, also a visiting professor in the MFA programme, lives and works in Baroda, India and is a founding member of the *Womanifesto* collective active in Asia.[9] For over twenty years she has organised exchanges between artists for the collective. During their meetings the artists work and live together in the same location, come to an understanding about their specific issues and roles as part of a community, and, at the same time, create new formats for their works. In conversation with the author, Varsha Nair commented on this as follows: «As co-organizer of *Womanifesto*, I have been instrumental in setting up projects that stretch beyond the traditional model of biennial exhibition-making to produce intergenerational and cross-disciplinary networks engaging in workshops in rural Thailand, a multi-authored art book publication, a digital exhibition and a residency program.»

The *Eco!* group

A further essential foundation of the StudioLab is interdisciplinary collaboration. The margins of the European Western art business are questioned in a productive way by current artistic practices. The group of students in the *Eco* field, along with Elisabeth Nold-Schwartz and Peter Spillmann, take a critical look at the topics cohabitation, more-than-human, responsability, decolonization, post-anthropocentricism, coevolution and companion species. Peter Spillmann postulates: «We were never alone; many animals accompanied us through the history of evolution; we became together.»[10] In his own research project he also works on the topic of cohabitation in interdisciplinary groups of architects, environmental scientists and artists.

The *¿Wo?* group

The students in the *¿Wo?* group led by Lena Eriksson, Ivana Lakic and Sabine Gebhardt Fink understand their cooperation as field work. The group uses feminist, activist and queer artistic positions to address core questions about artistic performative mediation. Back in the 1970s already, feminist positions were an approach to create a connection between artistic strategies with political concerns and societal agency, as Jessica Sjöholm Skrubbe emphasised.[11] While the students further develop their personal projects, each semester they work collectively on a joint *Woskope*. Lena Eriksson defines a *Woskope* as a format for collective, action-oriented mediation of individual projects: be it in the form of an audio walk, a blog, a feature or a magazine.

↑ **Fig. 4: StudioLab group *Eco!*, excursion to Entlebuch, photographed by Peter Spillmann, September 2022**

The *Post! post?* group

The *Post! post?* group led by Studer/van den Berg and René Gisler approaches its work with critical visual practices, contemporary forms of teaching art, and art in public contexts from the present debate about collective authorship, post-humanist art production and new life-worlds. Against the background of post- and transhumanist designs, they ask about hybrid body images and new spaces. They postulate: «Artificial intelligence, post-human and radical ecological thought converge in the relativisation of the human position. The proliferation of worlds and possibilities effects a transformation, also in the concept of identity (of the body, the subject, the artwork)», and asks: «Can we imagine post-human bodies – and also inhabit them?»[12]

The fundamental goal of the new curriculum is to depart from the traditional forms and formats of the art school. Through the StudioLab we can erect viable, sustainable and long-term cooperations with societal actors. The students have since begun to maintain their own off-spaces and a virtual student gallery, are building a garden in the courtyard of Viscosi and founding a permaculture farm in Italy. They are performing an intervention in the context of the *Zentral* exhibition at Kunstmuseum Luzern and collectively developing experimental formats like «Mundraub», «Tavoglio» and even the «Gang».

1 Donna Haraway, «SF. Science Fiction, Speculative Fabulations, String Figures, So Far», Pilgrim Award, Acceptance Comments, 7 Jul 2011, p. 2, https://people.ucsc.edu/~haraway/Files/PilgrimAcceptanceHaraway.pdf (retrieved 1 Sept 2022).

2 https://documenta-fifteen.de/en/lumbung/ (retrieved 1 Sept 2022).

3 Cornelia Sollfrank, «The Art of Getting Organized. A Different Approach to Old Boys Network», in: *On Curating* (2021), no. 52, pp. 120–125, here p. 120, https://www.on-curating.org/issue-52-reader/the-art-of-getting-organized-a-different-approach-to-old-boys-network.html (retrieved 1 Sept 2022).

4 Ibid., p. 123.

5 Ibid.

6 Ibid.

7 Ibid.

8 Unless otherwise stated, all quotes are taken from a flyer for the Master of Arts in Fine Arts programme of March 2022.

9 http://www.womanifesto.com

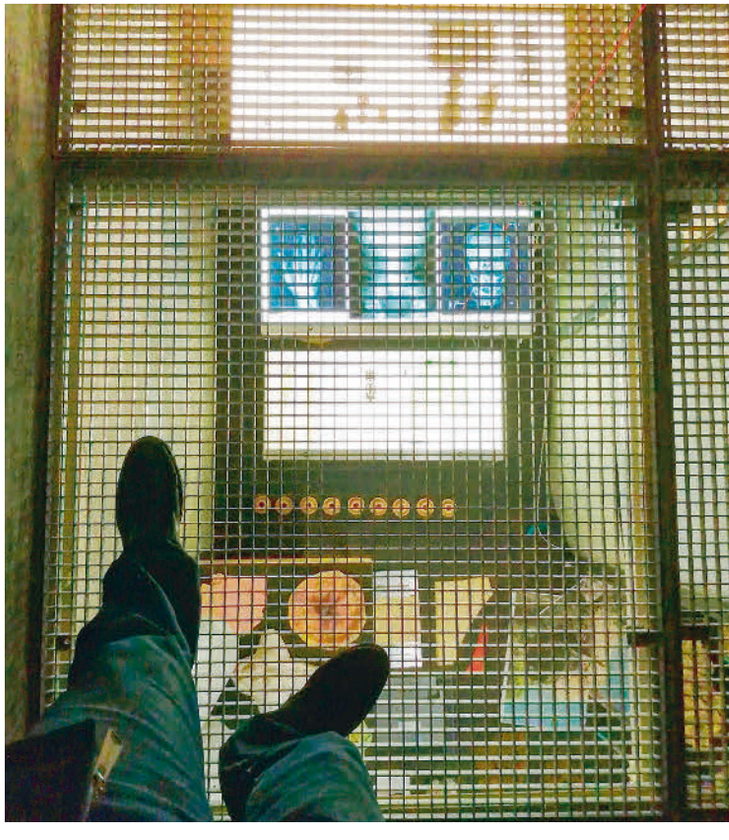
10 Peter Spillmann, «Wir waren immer gemeinsam unterwegs, die Kulturgeschichte der Cohabitation ist noch nicht erzählt! Anstelle eines Pamphlets», in: *INSERT. Artistic Practices as Cultural Inquiries* (2022), no. 2 («senseABILITIES – auf der Suche nach einem anderen Erzählen im Anthropozändiskurs»), p. 1, doi:10.5281/zenodo.6772382.

11 *Curating Differently. Feminisms, Exhibitions and Curatorial Spaces*, ed. Jessica Sjöholm Skrubbe, Newcastle upon Tyne 2016, p. xi.

12 In conversation with the author, 15 Sept 2022.

← **Fig. 5 Performance by Gang, during the exhibition *Bang Bang*, Museum Tinguely, Basel, photographed by Lena Eriksson, August 2022**

↓ **Fig. 6 StudioLab Days group *Post? post!*, photographed by Monica Studer/Christoph van den Berg, December 2021**




SUSTAINABILITY

In Constant Reflection on Change

Sustainability in Higher Education

Jacqueline Holzer

Sustainability has become an integral part of the curricula for higher education in art and design. Lilia Glanzmann, head of the Bachelor's programme in Textile Design, and Sebastian Utzni, the co-head of the Bachelor's programme in Fine Arts and Art & Design Education, discuss the question of how they are organising their disciplines to be ecologically, economically and socially more sustainable.

Jacqueline Holzer: Today everyone is talking about sustainability – a buzzword?

Lilia Glanzmann: A glance at our own training shows that sustainability was not really part of the course contents around 20 years ago. We studied the ‹textile chain›. A great deal has happened since then: Sustainability is reflected on all levels of the BA in Textile Design programme, be it with a view to the materials, to production or implementation. Sustainability has become a firmly established leitmotif.

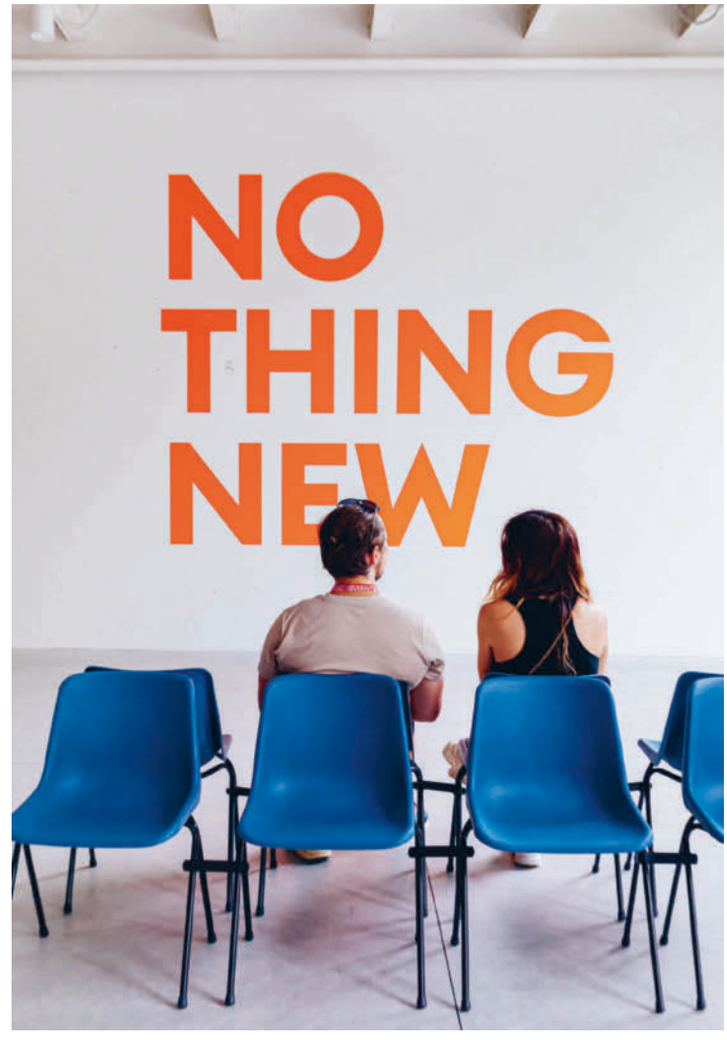
A glance at our own training shows that sustainability was not really part of the course contents around 20 years ago.

Sebastian Utzni: I am practically a dinosaur in the field of art: I produce physical works that are sold by art galleries. Our students are right to call such forms of art into question. Their work is more selective, more ephemeral, and context based. For us as programme heads, the decisive question is what the students want to do after graduation. Their course of study opens a plethora of individualised training paths. This is where our responsibility for social sustainability lies: The students receive a space of opportunity in which they position themselves. During their studies they become familiar with the contexts in which they can achieve their goals after graduation.

I produce physical works that are sold by art galleries. Our students are right to call such forms of art into question.

Jacqueline Holzer: Do they not face the risk of paradoxes arising between their individual goals and those of society?

Sebastian Utzni: We do not train ‹total individuals›. Nevertheless, we do focus on the students' objectives. Our task is to critically inquire whether these objectives are relevant for society. There is yet another paradox: Sometimes it is more sustainable for the students to not start



→ **Fig. 1 Bachelor's programmes Spatial Design, Object Design and Textile Design, «No Thing New», installation, Milan Design Week, 2022, photographed by Maya & Daniele**

Sometimes it is more sustainable for the students to not start the programme at all.

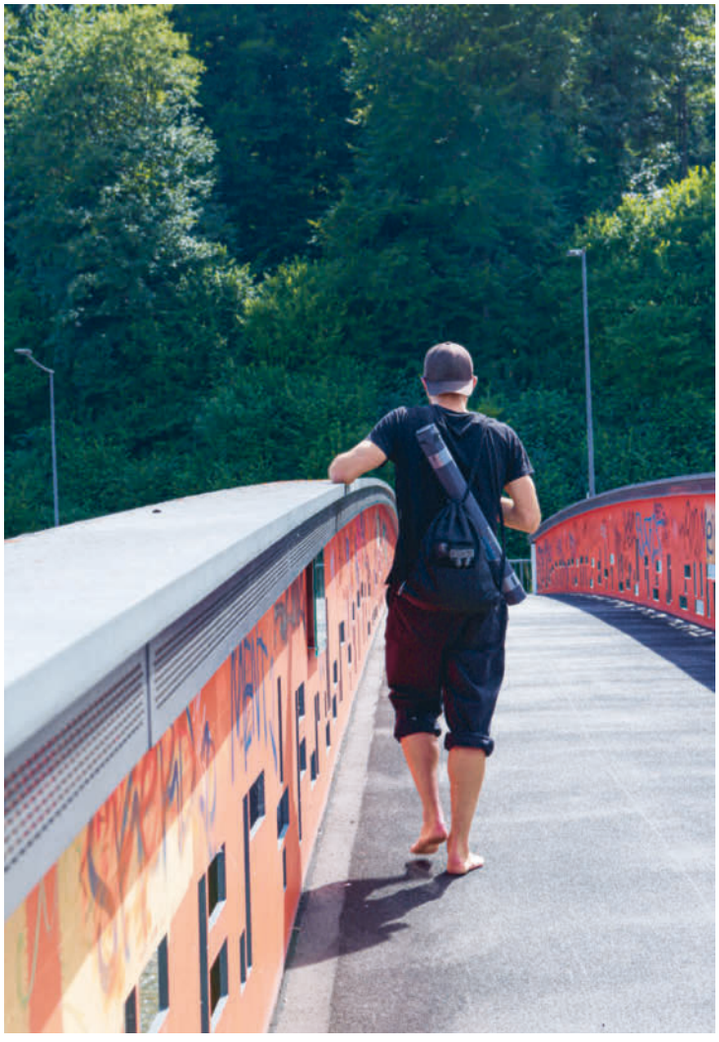
the programme at all. We provide feedback to all candidates about their application at the 24h admission day. Sometimes we recommend that they realise their ideas in a different context.

Jacqueline Holzer: How would you define the term sustainability?

Lilia Glanzmann: In Textile Design we use the Sustainable Development Goals (SDGs) of the United Nations as an orientation system. We have integrated these goals into the new modules. That means that we teach contents on sustainable ecological and economic development as well as sustainable social development. Of course, the act of reflection also plays a major role in our didactics: How can we educate sustainably? In our team we are by now convinced that grades are no longer useful. For we do not support the ‹faster, higher, further› system which is committed to an unquestioned ideology of growth. We are concerned with degrowth, with a more just distribution of resources.

In our team we are by now convinced that grades are no longer useful. For we do not support the ‹faster, higher, further› system which is committed to an unquestioned ideology of growth

Sebastian Utzni: And we have also implemented this in the new curriculum. In every academic year we design the dramaturgy of training to correspond with the ‹plan, do, check, act› cycle. The last two steps of the process, ‹check› and ‹act›, are dedicated to evaluation and thus to sustainability: Did the artistic process work? Is it in proportion to the means that were deployed?



← **Fig. 2 Thomas Baggenstos, *Beats Krokodil*, 2022, photographed by Céline Brunko**

Jacqueline Holzer: Perhaps we could come back to the SDGs. In what concrete ways are these implemented in a module?

In the first year we try to focus on the ecological goals; in the second and third years on the social ones.

Lilia Glanzmann: It is quite demanding to serve all levels, the ecological, economic, and social. The new subject modules of the new curriculum can serve as an example. They are assigned to SDG 12 «Ensure Sustainable Consumption and Production Patterns» («Keep it Local», «Make it Circular»). In the first year we try to focus on the ecological goals; in the second and third years on the social ones. The students engage in an intense exchange of ideas with students from other disciplines like spatial design and object design as well as with external institutions. What matters is that the students know the SDGs and scrutinise their future role as designers.

Sebastian Utzni: Scrutinising one's role as a designer or artist is essential for us. Yesterday I talked with two students from other disciplines about their wonderful project in an IDA module. They worked with algorithms that produce graphics with sleep data – and used them to make blankets. My question was: Why should you make blankets? Is the product really necessary to achieve your goal? In our K++V programme there is a clear strategy which we demand from our students: If you manufacture a product, make a shop to sell it. This raises the critical question: Is the product necessary? And is the shop necessary? Is sustainable, local production that is socially responsible at all possible?

Lilia Glanzmann: This questioning is important. At the Milan Design Week, those of us responsible for Spatial Design, Object Design and Textile Design chose degrowth as our theme. How can we distribute

→ **Fig. 3 Thomas Baggenstos, *Beats Krokodil*, 2022, photographed by Céline Brunko**

Ultimately it was clear that the only way to act consistently would be to leave the space empty.

resources more fairly? This led us to intense scrutiny of our own activities: The trip to Milan required resources, as did fitting out our exhibition space. Ultimately it was clear that the only way to act consistently would be to leave the space empty. Yet in order to initiate the discourse in the atmosphere of the trade fair, we created the installation «No Thing New» (fig. 1). This is not new, the Club of Rome served as a model. This made it all the more important to question our role: What and how do we designers and artists design and produce? As instructors – together with our students – we must hone our capabilities for these times of transformation. This is about more than the ‹fear of products›. In the House of Switzerland we met young designers who design building materials from brewery waste products. We are familiar with these upcycling methods. Just posing the question about whether a blanket or a table is needed is enough to conduct an unconventional discourse.

Yet for me it is clear that a work that is relevant in the year 2022 must address the topic of sustainability.

Sebastian Utzni: A convincing story about how artists provoke these changes in thinking and acting is that of Hans-Dietrich Reckhaus. He inherited a family business that produces insecticides. In order to device a market launch for a new flytrap, he collaborated with Frank and Patrick Riklin of the «Atelier für Sonderaufgaben». From the outset they asked about the value of insects. The result of this cooperation was the «insect respect» label, the recipient of multiple awards. Today the company’s primary product is compensation areas for insects which ensure their survival. With their critical questions and artistic strategies, two concept artists thus managed to transmogrify an entire sector. – Applied to our curriculum, this means that critical questions are posed not only by us to our students, but by our students to us and our institution. In the «Participation» module the students think about our structures creatively and elucidate them with their knowledge, which ultimately leads to a sustainable development of our institution.

Jacqueline Holzer: Are there students who critically interrogate sustainability?

Lilia Glanzmann: Probably not in textile design. The students want to scrutinise and modify existing processes and change them. Our students include environmental scientists from the ETH Zurich. They are

aware of the importance of sustainable, i.e., ecological action. Sustainability is a cross-sectional competence in textile design. One exciting example is this year's final project *Dreaming Tea Towels* by Jasmina Diggelmann. She worked in workshops with people with impairments to develop a handwoven collection of kitchen towels and dishcloths. Her work was ecological, produced locally, and offered space for others to sustainably develop their creative talents.

Yet for me it is clear that a work that is relevant in the year 2022 must address the topic of sustainability.

Sebastian Utzni: Our students produce, and this is justifiable. There are people who pursue a strategy in painting. We do not want to talk them out of this. The discussions on sustainability take place at many levels. Sometimes they concern a solvent used, sometimes they are about the sustainable effect realised by the pictures. We do not dictate which sustainability goals they must fulfil. – Yet for me it is clear that a work that is relevant in the year 2022 must address the topic of sustainability. And I am convinced that a radical movement and change are needed. Things are changing, fast, especially these days. The cycle ‹plan, do, check, act› finds application for everything – including curriculum development. We are already thinking further and reviewing our plans.

Jacqueline Holzer: If you were responsible for the Lucerne School of Art and Design, what would you implement in the area of sustainability?

If we would work together more, many material and intellectual resources would *not* be wasted.

Sebastian Utzni: I would like to do away with the programmes. If we would work together more, many material and intellectual resources would *not* be wasted. The new curriculum paves the way for this. Yet we are still far from the point where synergies can truly be exploited. And: I would take the studios away from students, these wonderful spaces that are so tempting to fill with ever more stuff. What would happen if we spent a year in the world?

Lilia Glanzmann: I see the appeal of that. But I have a different suggestion. Abolishing grades would be a systemic approach. This would be a strong signal.

Jacqueline Holzer: And what consequences would that have for all of you?

Sebastian Utzni: It would mean more work for us, as we would have to focus and analyse the students' work more intensively. It is easy to assign a grade. But providing truly constructive feedback that helps the person and their work to advance is demanding. Just as it is simple to work in one discipline, while interdisciplinary work is difficult and laborious. For this to work our teams need to develop further.

Lilia Glanzmann: Perhaps initial effort is what is needed, because the system boundaries are in flux. The activity of teaching and the role of the instructor have changed a great deal. The more blatant the change, the more profound the development needed.

Sebastian Utzni: Focusing on a work intensively also means reaching one's personal limits, admitting that there are things one does not know. For example, this summer we had a student, Thomas Baggenstoss, whose final project was to locate a koi carp in the local river (figs. 2–3). To follow his project in its entirety, would we need to have fishing knowledge or spend day and night with him in a tent by the river? Did this carp even exist? Or is it just a good story about our neighbourhood and the environment? The students turn to other experts. This challenges the way we perceive and occupy ourselves.

Jacqueline Holzer: How do you give the students feedback?

Lilia Glanzmann: We have refined our criteria. One approach, in the sense of Andreas Cincera from the Centre for Learning, Teaching and Research (ZLLF), is to give idiolectic feedback, i.e., we ask questions and do not recommend any particular action.[1] The criteria set by us and by the students continue to provide orientation – especially for the feedback on the final project. We also obligate the students to evaluate their work based on the criteria they set themselves. This is not a simple process; together we are learning a new culture of feedback.

This challenges the way we perceive and occupy ourselves.

We live in a multi-perspective world, so there is no right or wrong answer.

Sebastian Utzni: In discussions with Yolanda Martinez Zaugg from the ZLLF we determined that there will be no feedback without a plan: At the beginning of the semester the students write a *letter of intent*. We ask them to write what they have planned and how their projects can be reviewed. We give them feedback at an appointed time. What matters is: We live in a multi-perspective world, so there is no right or wrong answer. The students receive diverse feedback from their mentor, guests, peers, and instructors. Just yesterday it was time for the responses to the students' portfolios. Afterward, one student asked me whether he could choose a different form for his work. Mara Züst proposed designing an interactive website to present it. In future he will make the decision about his best path forward. Students achieve this self-empowerment during the Bachelor's programme if they engage with these multi-perspective criteria and position themselves accordingly.

Jacqueline Holzer: What topics will we be occupied with in five years?

Lilia Glanzmann: Spirituality perhaps? Sustainability remains an important topic. And if need be, the disciplines will further dissolve. The students are already exemplifying this in their own biographies. They graduate from the ETH and then continue with a design degree.

Sebastian Utzni: At the moment we are dealing with the question of identity, that will certainly increase. And in any case, the future will see us confronting existential questions that can also lead to absolute climaxes. Many basic assumptions will be questioned. We may not know how to pay for our daily bread, but at night we will go to the ultimate party.

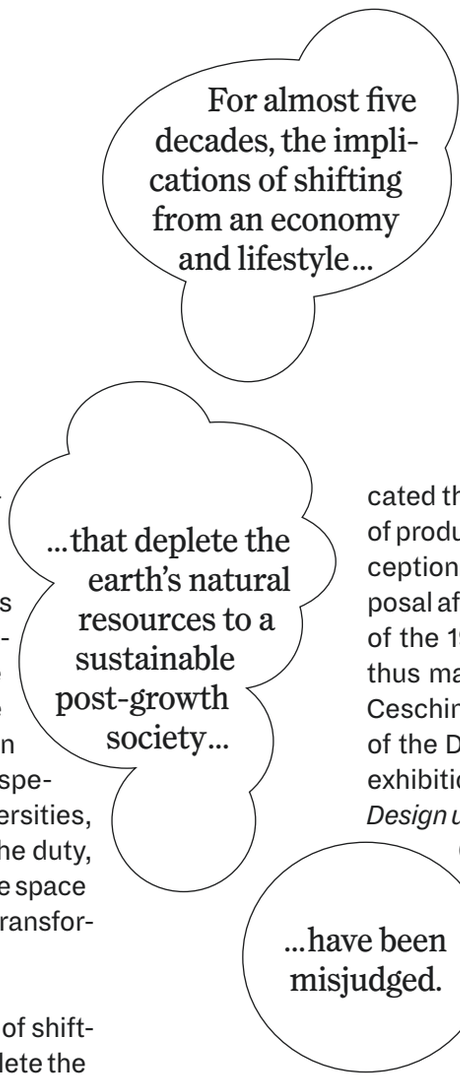
We may not know how to pay for our daily bread, but at night we will go to the ultimate party.

1 See the contribution by Lilia Glanzmann in this issue, pp. 62–64, doi:10.5281/zenodo.7418230.

(Product) Design for Sustainability

What Design (Education) Can Contribute to Sustainability

Dagmar Steffen



In the design community, as in other disciplines, the environmental crisis has been misjudged and insufficiently addressed for decades. But as the scale of the crisis grows, so too do insights and creativity regarding how the problems of climate change can be addressed, be it using the methods and forms of expression of design or through interdisciplinary exchange. Especially for students at art and design universities, preparing for an unknown future entails the duty, but also the freedom, to experiment in a safe space and to envision a possible and desirable transformation towards sustainability.

For almost five decades, the implications of shifting from an economy and lifestyle that deplete the earth's natural resources to a sustainable post-growth society have been misjudged. This is evidenced not least by the history of sustainable design, which is, upon closer examination, a story of small successes in the larger context of a fundamental failure. The failure consists in the predominant assessment that the environmental crisis is a ‹tame problem›, believed to be resolvable through «direct transference of the physical-science and engineering thoughtways».[1] Accordingly, industrial designers, the majority of whom were still caught up in the functionalist paradigm, located the problem first in the material properties of products: They were designed without any conception for their potential repair or eventual disposal after their period of use. During the first half of the 1990s, efforts to redesign such products thus marked the starting point of what Fabrizio Ceschin and Idil Gaziulusoy called the «evolution of the Design for Sustainability (DfS) field».[2] The exhibition catalogue *Designed in Germany 93/94. Design und Ökologie,* edited by the German Design Council, documents this approach. Adhering to the same thinking as this kind of ‹green design›, the next level of ‹eco-design› was initiated by Ursula Tischner in cooperation with Friedrich Schmidt-Bleek of the Wuppertal Institute,[3] followed by the cradle-to-cradle design approach developed by the architect and designer William McDonough and chemist Michael Braungart.[4] In accordance with the framework of a circular economy, sustainable product design followed principles including the elimination of waste and pollution; the reduction of material intensity, energy consumption and transportation; the use of renewable raw materials, the prolongation of products' lifespan, and the recycling of materials. Much technical-instrumental knowledge and many research methods have since emerged. For designing material products

↑ **Fig. 1** ***The Tree in the Furniture*** **combines the use of waste wood with local craftmanship and value creation in unique pieces of furniture. BA project by Robin Henseler, 2022**

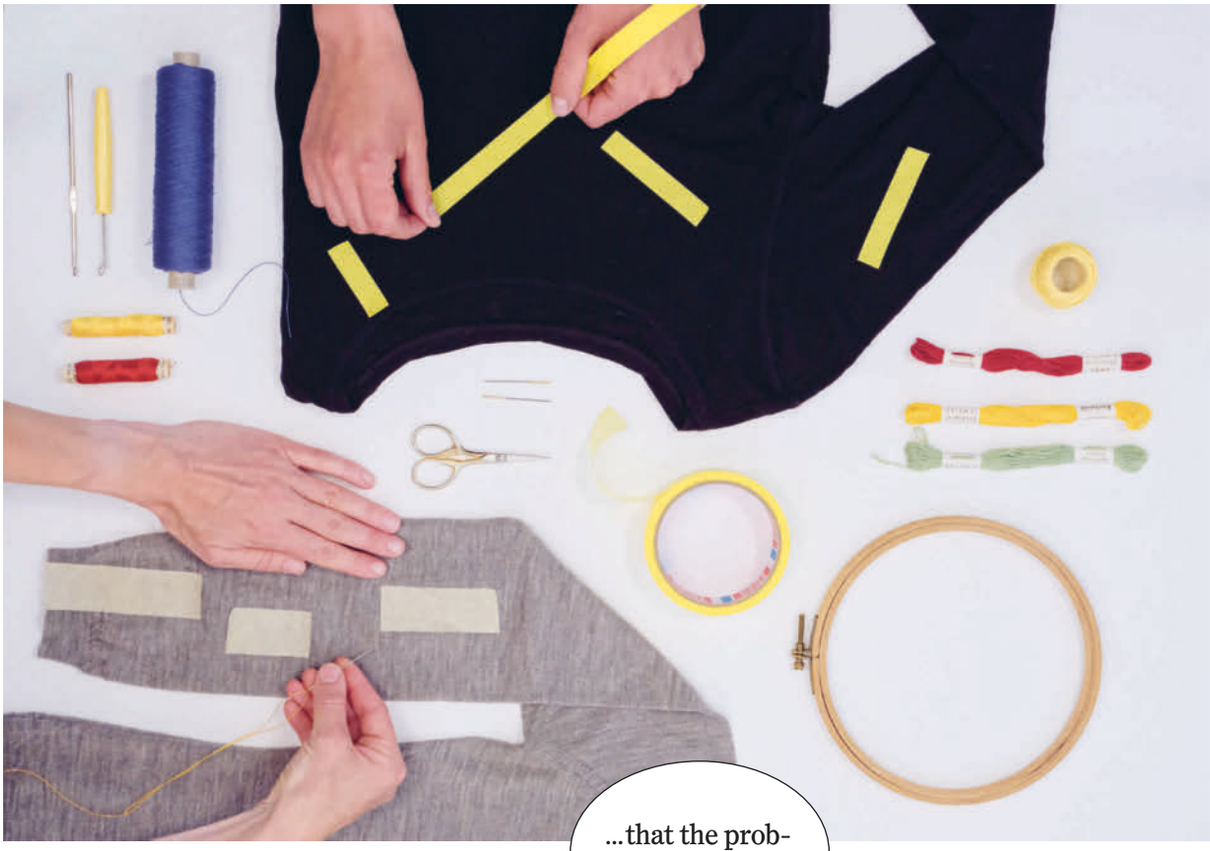
...products and the environmental impact associated with them can never be considered on their own, but only in the context of products' use and sustainable lifestyles...

this knowledge is fundamental and requires continuous further development. Nevertheless, at Swiss design schools it has yet to be implemented consistently in design education.

However, the eco-design and cradle-to-cradle approaches to product design are far from sufficient to mitigate environmental disaster. The underlying mindset of technical rationality and functionalism ignores the fact that products and the environmental impact associated with them can never be considered on their own, but only in the context of products' use and sustainable lifestyles – or in other words: in a larger systemic context. De facto, this mindset falls short behind the critical stance of pioneers such as Victor Papanek,[5] Lucius Burckhardt,[6] Jochen Gros[7] and the International Design Center (IDZ) Berlin, led by François Burkhardt in the 1970s. These actors questioned not only the technological problem-solving approaches of their age, but also the growth paradigm of industrial mass production, the associated Western work and lifestyle, and last but not least, the aesthetics and semantics of industrial-oriented *Good Design*. They agreed that combating the environmental crisis must include adjusting social practices. The psychological human-object relationship, product semantics and ways of enhancing product attachment were discussed as well as do-it-yourself concepts. These issues were reflected in several conferences, catalogues and exhibitions, like, for example, *Design it yourself* and *Product and Environment*.[8]

The psychological human-object relationship, product semantics and ways of enhancing product attachment were discussed as well as do-it-yourself concepts.

Later, these issues gained relevance in the international design discourse as well: From emotional durable design, design for sustainable behaviour, product-service-system design, design for social innovation, systemic design, and design for sustainable transitions, the scope of concepts for design interventions expanded from insular concerns into a human-centric, systemic dimension.[9] This development of design for sustainability is congruent with the extension of the field of design as described in the trajectory model of Klaus Krippendorff,[10] which indicated a progression from designing products to projects and discourses, and with Richard Buchanan's *Four Orders of Design*,[11] a framework which reflects how the discipline has been shaped and constantly transformed around the emergence of new problem areas. Since the measures needed to alleviate the environmental problems extend into the highly complex social sphere, where the conflicting interests of various actors must be negotiated, it becomes clear that the problems we are dealing with are not tame, but



← **Fig. 2** ***The Hole Story*** **extends the life cycle of clothing by turning repair into an aesthetic eye-catcher. Sample cards show a wide variety of textile techniques. MA project by Anne Schüter, 2019**

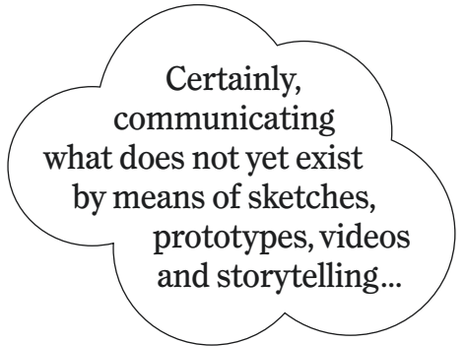
> ...that the problems we are dealing with are not tame, but have certain characteristics of ‹wicked problems›, which must be addressed with different approaches.

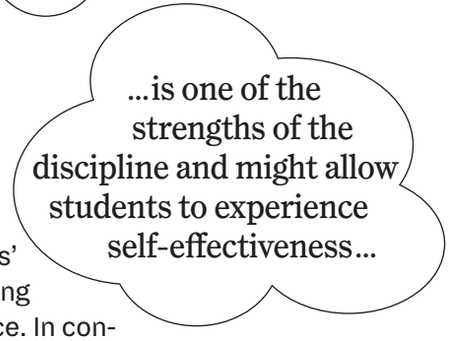
have certain characteristics of ‹wicked problems›, which must be addressed with different approaches.[12] The fact that some of the planetary boundaries demarcating «A Safe Operating Space for Humanity»[13] have already been transgressed clearly emphasises the need to effectively regenerate nature rather than merely refrain from doing further damage.

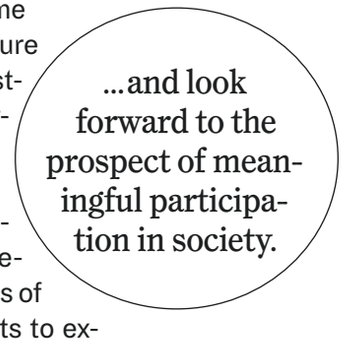
Dealing with sustainability in design education

In recent years, students in the Bachelor of design programmes at the Lucerne School of Art and Design have increasingly seen their position as future designers at the heart of the conflict between overproduction and waste problems on the one hand, and climate change, scarcity of resources and unfair working conditions in production sites abroad on the other. Representing many fellow students, graduate student Leila Saad addressed these concerns with critical questions in her thesis: «What is the purpose of design today? What is my responsibility as a designer? What does the world need? How are product designers being taught to navigate this crisis?»[14]

The Lucerne School of Art and Design is stepping up to the challenge of educating art and design students to be professionally qualified for a rapidly changing world while at the same time preparing them to shape a future that is worth living in and safe for subsequent generations. With the latest curriculum reform, the topic of sustainability and transformation came to the fore more than ever. The school started an Eco-Social Design Master's programme, for which advanced students apply with an appropriately focused project idea and are enabled to enlarge and deepen their knowledge in collaborative and practice-oriented design approaches. The Bachelor's programmes, in contrast, are still specialised in their given disciplines, of course, but also conceived to sensitize students to current and identifiable future challenges, providing them the opportunity to acquire crucial future competences. The newly offered interdisciplinary +++Modules, for instance, which are open to students in all 13 degree programmes as elective modules, prepare them to deal with complexity, agility, and the ability to cooperate. Students are required to reflect on their own values and to take a stance by bringing them into a project in a playful way. Topics include, for example, «Eating Culture – More than a Matter of Taste» and «City of the Future». Doubtlessly, both are far-reaching and highly complex fields, which suggest exploring the various social, cultural, economic, and ecological dimensions. But nevertheless, they allow low-threshold







access based on students' own daily experience of eating habits or places of residence. In confrontation with this, students should come up with desirable and sustainable future scenarios[15] that do not perpetuate existing reality but show and tell about alternative paths. Certainly, communicating what does not yet exist by means of sketches, prototypes, videos and storytelling, and generating public awareness and debate, is one of the strengths of the discipline and might allow students to experience self-effectiveness and look forward to the prospect of meaningful participation in society. Imagining and conceiving engaging propositions that lead to experiential lifestyles of sufficiency is a much-needed complement to technical approaches or solutions. This will be all the more important if the further course of the environmental disaster confirms the hypothesis that the future *cannot* be «the same in green»[16]: with the same economics of growth and same consumer culture as hitherto, but based on biological, renewable resources rather than fossil ones. Various BA and MA theses have already offered small windows into various scenarios for a ‹sustain-able future›[17] by transfering theories and concepts into day-to-day practice.

1 Horst W. J. Rittel and Melvin M. Webber, «Dilemmas in a General Theory of Planning», in: *Policy Sciences* 4 (1973), pp. 155–169, here p. 165, doi:10.1007/BF01405730.

2 Fabrizio Ceschin and Idil Gaziulusoy, *Design for Sustainability. A Multi-level Framework from Products to Socio-Technical Systems*, New York 2020.

3 Cf. Friedrich Schmidt-Bleek and Ursula Tischner, *Produktentwicklung. Nutzen gestalten – Natur schonen*, Schriftenreihe des Wirtschaftsförderungsinstituts (WIFI) Österreich, no. 270, Vienna 1995; Ursula Tischner, Eva Schmincke, Frieder Rubik and Martin Prösler, *Was ist EcoDesign? Ein Handbuch für ökologische und ökonomische Gestaltung*, Frankfurt/Main 2000.

4 William McDonough and Michael Braungart, *Cradle to Cradle. Remaking the Way We Make Things*, Berkeley 2002.

5 Victor Papanek, *Design for the Real World*, London 1972.

6 Lucius Burckhardt, «Kriterien für ein neues Design», in: *Werk Archithese* 64 (1977), no. 4.

7 Jochen Gros, «Des-In – ein neues Ornament?», in: *Produkt und Umwelt*, exhibition catalogue, ed. International Design Zentrum Berlin, Berlin 1974, pp. 58–76; Jochen Gros, «Des-In, ein Nachruf über 20 Jahre», in: *Mehr weniger? Über den Umgang mit ökologischen Herausforderungen in der Designausbildung,* Kolloquium Juni '93, Projektbuch, ed. Projektgruppe Up Date Petra Kellner, Offenbach am Main 1993, pp. 116–121.

8 The International Design Zentrum Berlin initiated the participatory exhibition *Design it yourself* in 1973/74 and announced the design competition *Produkt und Umwelt* in the same year. The winning projects, selected by a jury of experts, were exhibited at the IDZ in late 1974 and published in a catalogue volume (note 7).

9 The above-mentioned concepts for design interventions are described comprehensively by Ceschin and Gaziulusoy and classified in figure 12.4 (p. 149) (note 2).

10 Klaus Krippendorff, *The Semantic Turn. A New Foundation for Design*, Boca Raton 2006.

11 Richard Buchanan, «Design Research and the New Learning», in: *Design Issues* 17 (2001), no. 4, pp. 3–23, doi:10.1162/07479360152681056.

12 For the characteristics of ‹wicked problems›, see Rittel and Webber (note 1). The current state-of-the-art research reveals that while the Paris Agreement's 1.5 °C target could be achieved by using the available technical and economic options, due to societal challenges it is not plausible that this will happen. *Hamburg Climate Futures Outlook 2021. Assessing the Plausibility of Deep Decarbonization by 2050*, eds. Detlef Stammer et al., Hamburg 2021, doi:10.25592/uhhfdm.9104.

13 The concept of planetary boundaries was developed by Johan Rockström and colleagues in 2009. Cf. Johan Rockström et al., «A Safe Operating Space for Humanity», in: *Nature* 461 (2009), no. 7263, pp. 472–475, doi:10.1038/461472a. For the latest news, see the Stockholm Resilience Centre's website https://www.stockholmresilience.org/research/planetary-boundaries/the-nine-planetary-boundaries.html (retrieved 19 Oct 2022).

14 Leila Saad, *A Quest to Find the Purpose for Product Design in the Age of the Climate Crisis*, Bachelor thesis, Lucerne School of Art and Design, Lucerne 2020, p. 7.

15 Cf. Tony Fry, *Design Futuring. Sustainability, Ethics and New Practice,* Oxford 2009.

16 Tomma Schröder, «Versprechen der Bioökonomie: Das gleiche in Grün?», in: *Deutschlandfunk, Forschung aktuell, Wissenschaft im Brennpunkt,* (29 Nov 2020) https://www.deutschlandfunk.de/versprechen-der-biooekonomie-das-gleiche-in-gruen-100.html (retrieved 16 Oct 2022).

17 In line with Tony Fry (note 15) this spelling is intended to emphasize more agency.

Design Management to Foster Conditions Conducive to Life

Transformation and Regeneration

Guillermina Noël

> ...design needs to shift to problems related to the flourishing of life.

> What does it mean to educate young designers...

Design has been in the main concerned with problems of making products, spaces and services. David Orr proposes that design needs to shift to problems related to the flourishing of life. He suggests to educate a designer that «supports change and is competent to do the local work of rebuilding households, farms, institutions, communities, corporations, and economies that (1) do not emit carbon dioxide or other heat-trapping gases; (2) do not reduce biological diversity; (3) use energy, materials, and water with high efficiency; and (4) recycle wastes. In other words, a constituency that is capable of building economies that can be sustained without further reducing the Earth's potential to sustain life».[1] Orr believes that most of our environmental problems are a consequence of poor design.[2]

> ...create possible courses of action for more just and sustainable futures...

Design education has a critical role to play in the preparation of professionals ready to face the world's interconnected problems, and to foster more sustainable ways of living. *The Earth Charter,* a declaration of 16 values and principles, states «the resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air.»[3]

What does it mean to educate young designers to respond to planetary emergency? How do we educate designers to repair the damage we have created over the last 250 years? And how do we educate designers to foster the flourishing of life? This is at the core of the new curriculum in the Design Management International programme at the Lucerne School of Art and Design.

Three main sustainability areas in the new Design Management curriculum

When talking about sustainability, I refer to living in balance with natural cycles. The ecosystems that we are part of and rely on need to flourish; this requires transforming how we live, and how we imagine living.[4] To transform the way we live and foster conditions conducive to life, it is essential to become aware of how we live, and of the living processes that are entangled with our own.

> ...the living processes that are entangled with our own.

Fostering life-affirming conditions requires acquiring, expanding and developing knowledge, and a constant engagement to question how we know what we know. Without knowing what we know and how we know, we are imagining, thinking, and acting unaware that our knowledge and mental models might be barriers.

Sustainability, understood as a process of co-evolution, demands continuous community-based conversations and learning.[5] For John Dewey, education is renewal. He states, «society exists through a process of transmission quite as much as biological life. This transmission occurs by means of communication of habits of doing, thinking, and feeling».[6] What habits of doing, thinking, and feeling are we transmitting to our students? How are these helping future generations to contribute to all parts of the ecology?

What habits of doing, thinking, and feeling are we transmitting to our students?

There are three main current approaches in design for sustainability: *Design for circular economy, Design for transformation,* and *Design for regeneration.* The three areas share a common overarching goal: to preserve, maintain, and foster the health of our ecosystem. What connects all of us, all living organisms, is life.

...for people, communities, and the planetary scale.

What connects all of us, all living organisms, is life.

In her article, Dagmar Steffen has already addressed *design for circular economy*.[7] Circular economy focuses on cyclical manufacturing and the use of earth resources. *Design for transformation* pivots on human behaviours and seeks to understand and propose more sustainable ways of living. The Stockholm Resilience Centre, a leader in transformation, asserted that «creating a fair, prosperous world that maintains and strengthens Earth's life-support systems requires transformative changes».[8] Similarly, John Thackara considered that sustainability is not something to be designed, or demanded by activists, politicians, and policy-makers. Sustainability is for Thackara an emerging condition resulting from changes at many different scales. Thackara proposed that the type of growth that makes sense is the regeneration of life on Earth.[9] Design for transformation applies transdisciplinary approaches to co-design knowledge with multiple actors to design life-fostering actions. For Humberto Maturana and Francisco Varela, knowing is effective action.[10] The authors alert us to be vigilant to the temptation of certainty, «to recognize that certainty is not proof of truth, ... the world everyone sees is not *the* world but *a* world which we bring forth with others».[11]

...regenerative cultures are healthy, resilient and adaptable.

...sustainability is not something to be designed...

...we think in terms of patterns and contexts.

Design for transformation applies transdisciplinary approaches...

Design for regeneration puts «life at the center of every action and decision».[12] It centres attention on processes designed with communities to restore ecosystems, foster resilience, and reconnect people with nature. To construct more sustainable ways of living, designers need to acquire, practice, develop and embrace knowledge, practical and critical skills, analytical and synthesis abilities, and diverse worldviews to tackle «the complex interwoven, transdisciplinary issues involved in the redesign of our lifestyles».[13] When designing for regeneration, designers help foster systemic health at various levels: for people, communities, and the planetary scale. Bill Reed proposes a design process focused on the whole system we are part of, the community, bioregion, and earth systems. For Reed the design process is a process of participation, engagement in healthy relationships, a continuous learning process that occurs in reflection and dialogue to build capability for people and ‹more than human› participants.[14] Along the same lines, Daniel Wahl argues that regenerative cultures are healthy, resilient and adaptable.[15]

The current rate and kind of growth that organisations are seeking is not sustainable. Instead, what needs to be sustained is systemic health, and what needs to be fostered is the capacity to recover vitality and rebound from collapse. As Fritjof Capra and Hazel Henderson argued, we need to grow in quality, not quantity. We need growth that enhances life quality.[16]

A key ability to work in the context of design for regeneration is to learn to live in participation. The way we relate to nature's life supporting systems is not sustainable.[17] If the goal of designers is to create conditions conducive to life, we need to learn to participate in a unified and living world.[18] We live in interactions, relations, and interdependencies with others and with our ecosystems. For Gregory Bateson, «learning the context of life»[19] means learning to become aware of the relationship. Living in participation implies abandoning «competitive struggle» as a model of evolution, and replacing it with cooperation. This new understanding of life demands that we think in terms of patterns and contexts.[20]

For the Design Management International Bachelor programme, design for regeneration requires learning new ways of looking at the world, moving beyond the paradigm of problem/solution, and questioning our beliefs and ways of knowing.

In this context, a necessary change entails shifting from understanding organisations as machines to understanding organisations as living organisms, networks that operate as a whole collaboration.[21] Frederic Laloux noted that organisations that evolve, called Teal organizations, are based not on control, but on peer relationships, wholeness, and evolutionary purpose. This relates to the

‹Learning Organization›, a concept developed by Peter Senge. He explained the principle using the term Metanoia, a shift in mind that happens because of being connected, being generative and part of something bigger than us.[22]

Learning communities are key in the context of regeneration; their goal is transformative learning.[23] This takes place in communities that talk, discuss things of interest and concern, and form patterns of relationships. Transformative learning involves changes in perspectives and worldviews as they relate to others. The new Design Management curriculum expands the focus from *design for circular economy,* to *design for transformation* and *design for regeneration*, to form professionals that can foster more just realities and strengthen nature's life-supporting systems. This requires becoming aware of our habits and principles, including how we come to know and discuss climate change. Without this awareness we are acting guided by a flashlight. Discovering that we need to turn the flashlight off is part of the learning we need to experience if our aim is to foster living.

Learning communities are key in the context of regeneration...

Transformative learning involves changes in perspective...

...to form professionals that can foster more just realities...

Discovering that we need to turn the flashlight off is part of the learning...

To understand design management as a process of inquiry and planning.

What matters? Who determines what matters?

What are the co-dependencies?

...foster skills to capture complexity...

Turning the flashlight off: Reorienting attention to become aware

In the new Design Management International curriculum, the focus is on transforming human activities to improve living and working. Throughout the three years of the programme, students engage in constant inquiry processes. Basic questions throughout the programme include: Which are the circumstances that require care? Who is involved? Why does it happen? Where does it happen? What matters? Who determines what matters? What are the diverse perspectives? What are the co-dependencies? How can the situation be transformed? How can human action be redesigned and aligned with nature? How do we want to design in this context?

In the first year, the goal is to understand people in the context of everyday activities. To understand design management as a process of inquiry and planning. To understand the value of design management research as a systemic approach to address complex problems. In the second year, students learn in the context of framed situations. Students apply design management research processes to overcome current organisational challenges, by collaborating with the people involved in the situation while addressing complexity. In the third year, students learn to frame situations. They identify matters of concern, learn about specific circumstances by applying systemic and beyond-human–centred approaches, and create possible courses of action for more just and sustainable futures. For example, in the second year, students are exploring how the smoking landscape has changed in the context of e-cigarettes and vaping. A question they are pondering is what is the relationship between the productive and machinery educational approach and smoking for teenagers 13/14 years of age? In the third year, students are understanding food systems by using mapping to see patterns and explore the relationship between human action and soil quality. They are using the map as an inquiry tool. An emerging question is, for example: How does a change in context influence the food choices of students who have just started living away from home?

In the first two years, the focus is not on the «need to cover content», but on discovering through dialogue, reading, observing and envisioning. The focus is on inquiring, on reflection and on learning to learn, on the acquisition of mental models, and learning with peers. The focus is less on lecturing and more on supporting, modelling and facilitating. The goal is to guide the reflective gaze towards understanding.[24]

Throughout the three years the focus is on becoming aware. Becoming aware of the reality that we are part of, the systems that form us and that we form, the contexts in which we live and work, and how we interact in them, becoming aware of how we influence and transform these systems for better or worse. Students and instructors become aware of their thinking, its processes and models, the biases in this thinking, the wrong assumptions and judgement.

Edgard Morin highlights the fact that, as humanity, we have gained unprecedented knowledge about the world. He also highlights that in this process, «error, ignorance and blindness» have advanced in parallel to the development of knowledge.[25] Morin claims that we need to become aware of «the nature and the consequences of paradigms that mutilate knowledge and disfigure reality»;[26] namely, the temptation to isolate, reduce and simplify reality. Hence, at the Design Management International programme we foster skills to capture complexity and to deal with it. Morin defines complexity as «the fabric of events, actions, interactions, retroactions, determinations, and chance»[27] that form our phenomenal world. To help students deal with complexity, the programme adopts «systemic thinking», thinking in terms of relationships, patterns and contexts.[28] Connecting is key, but connecting is not a straightforward process. Seeing, feeling, and sensing the connection between humans and na-

ture is essential. Connecting also requires questioning epistemologies of crisis, where it is urgent to do better. Best intentions in the past have shown that epistemologies of crisis can be harmful. Living in relationship requires moving beyond solution-oriented action. Acting unaware of dependency and complexity might obscure the circumstances we live in. Learning to sense the interdependencies, including sensing the classroom as an interconnected system, is at the core of the new curriculum.

...questioning epistemologies of crisis...

...we foster skills to capture complexity and to deal with it.

Seeing, feeling, and sensing the connection between humans and nature is essential.

1 David W. Orr, *Hope Is an Imperative: The Essential David Orr*, Washington, DC 2011, pp. 169f.

2 Ibid., p. xviii.

3 Earth Charter International, *The Earth Charter*, https://earthcharter.org/read-the-earth-charter/preamble/ (retrieved 28 Jul 2022).

4 Danielle Wilde, «Design Research Education and Global Concerns», In: *She Ji. The Journal of Design, Economics, and Innovation* 6 (2020), no. 2, pp. 170–212, doi:10.1016/j.sheji.2020.05.003.

5 Daniel Wahl, *Designing Regenerative Cultures*, Charmouth 2016, p. 40.

6 John Dewey, *Democracy and Education. An Introduction to the Philosophy of Education*, Bloomfield 2018, p. 5.

7 See the contribution by Dagmar Steffen in this issue, pp. 86–69, doi:10.5281/zenodo.7418537.

8 Andrea Downing and Vanessa Masterson, «Stewardship and Transformative Futures», Stockholm Resilience Centre, https://www.stockholmresilience.org/research/research-themes/stewardship-transformation.html (retrieved 8 Nov 2022).

9 John Thackara, *How to Thrive in the Next Economy. Designing Tomorrow's World Today*, 2015.

10 Humberto R. Maturana and Francisco J. Varela, *The Tree of Knowledge. The Biological Roots of Human Understanding*, Boston 1987, p. 29.

11 Ibid., p. 245.

12 Paul Hawken, *Regeneration. Ending the Climate Crisis in One Generation*, New York 2021, p. 9.

13 Gaia Education, *Ecovillage Design Education*, 2012, https://en.calameo.com/read/001296150964efcc488b0 (retrieved 1 Sept 2022).

14 Bill Reed, «Shifting from ‹Sustainability› to Regeneration», in: *Building Research & Information* 35 (2007), no. 6, pp. 674–680, doi:10.1080/09613210701475753.

15 Wahl, 2016.

16 Fritjof Capra and Hazel Henderson, «Qualitative Growth», 2009, https://www.fritjofcapra.net/qualitative-growth/ (retrieved 1 Sept 2022).

17 Reed, 2007; Wahl, 2016.

18 Reed, 2007.

19 Gregory Bateson, *Mind and Nature. A Necessary Unity* [1979], Cresskill, NJ, 2002.

20 Fritjof Capra and Pier Luigi Luisi, *The Systems View of Life. A Unifying Vision*, Cambridge 2014, p. xi–xii.

21 Ibid.; Frederic Laloux, *Reinventing Organizations. A Guide to Creating Organizations Inspired by the Next Stage of Human Consciousness*, Brussels 2014.

22 Peter M. Senge, *The Fifth Discipline. The Art & Practice of The Learning Organization*, New York 2006.

23 Daniel Christian Wahl, «The Systems View of Life as a Regenerative Community (3 of 3) Fritjof Capra Interview by Daniel Wahl», 19 Feb 2020, https://youtu.be/OD3bhT-3gum8 (retrieved 1 Sep 2022).

24 Humberto Maturana, «Una Belleza Nueva», 14 Feb 2014, https://youtu.be/V3pH_lxUKcA (retrieved 1 Sep 2022).

25 Edgard Morin, *On Complexity*, New York 2008, p. 2.

26 Ibid., p. 3.

27 Ibid., p. 5.

28 Capra and Luisi, 2014, p. xii.

«Three Choices»

Jan-Christoph Zoels, Karin Fink and Andreas Unteidig

«We basically have three choices: mitigation, adaptation, and suffering. We are going to do some of each. The question is what the mix is going to be.»

– John Holdren, 2007[1]

Climate change and related emergencies are our key challenges. While design education has addressed sustainability through various lenses – material research, cradle-to-cradle design, circular economy, participatory design approaches to social innovation, and co-creation to prototyping regulations – much remains to be done. The choices outlined in this statement by John Holdren, a former senior science advisor to the Obama administration, frame potential directions to address the climate crisis in the design education curriculum and to connect design education to the broader scientific discourse. We examine each of Holdren's choices as action and opportunity areas for designers. We briefly contextualise the new Master in Eco-Social Design (ESD) programme at the Lucerne School of Design and Art, which explores the wicked problems of living within the planet's ecological limits.

Mitigation approaches tackle the root causes of climate change, e.g., by reducing emissions and changes in behavioural patterns and societal paradigms. The European Environmental Agency describes mitigation as preventing or reducing greenhouse gas emissions into the atmosphere and offers (predominantly technical) examples: «by reducing the sources of these gases – e.g., by increasing the share of renewable energies, or establishing a cleaner mobility system – or by enhancing the storage of these gases – e.g., by increasing the size of forests.»[2] Further examples include experimental geoengineering approaches to reduce solar radiation or augment photosynthesis, negative emissions technologies such as direct air carbon capture and sequestration, ocean fertilisation, or more conventional decarbonisation approaches such as renewable energies, biomass construction, reforestation and wetland reconstruction.

The European Environmental Agency describes mitigation as preventing or reducing greenhouse gas emissions into the atmosphere and offers (predominantly technical) examples

While the latter examples have a low likelihood of negative repercussions, the more experimental approaches «carry a lot of uncertainty and risk in terms of practical large-scale deployment,»[3] according to Fawzy et al. The *IPPC Sixth Assessment Report* on impacts, adaptation and vulnerability confidently states, «Solar radiation modification approaches, if they were to be implemented, introduce a wider range of new risks to people and ecosystems, which are not well understood.»[4]

What can design bring to mitigation? Is our contribution profound or practical enough?

Challenging questions emerge for designers:

How might we contribute to a shift in societal paradigms, values and mindsets? How might we foster participatory decision-making methods to scale mitigation strategies? What can design bring to mitigation? Is our contribution profound or practical enough? Do we understand the science, complex stakeholder networks, systemic nature, and implications of our interventions? How do we address the social dimension in equitable and just ways? How might we inspire students to move from people to planet-centric design approaches?

Adaptation describes the preparation of our communities and ourselves for current and future impacts. Measures include large-scale infrastructure

changes, such as building defenses to protect against rising sea levels, flood barriers and storm drains, urban planning initiatives such as edible cities and 15 min neighbourhoods, energy-efficiency improvements to the existing building stock, environmental land management schemes, nature-based solutions such as rewilding and ecosystem reconstruction, urban agriculture, vertical farming, and water management, as well behavioural shifts, such as individuals reducing their food waste, changing their diet, mobility or consumption patterns ... Adaptation can be understood as adjusting to climate change's current and future effects.

Adaptation can be understood as adjusting to climate change's current and future effects.

The *IPCC Sixth Assessment Report* describes climate-sensitive health outcomes under three adaptation scenarios – limited, incomplete or proactive. *How might we help policymakers, communities, and individuals to understand the result of their (non)-actions? How can we go beyond local-scale initiatives to address the socioeconomic costs of maintaining and reconstructing countries overproportionally struck by climate disasters? How do we manage the uneven distribution of climate dangers?*

Further questions arise:

How might we map stakeholder interactions, such as losses and opportunities within our communities? How can we expedite our societies' adaptation to climate crisis and biodiversity loss? What actions can we model toward more sustainable, solidarity, just, and resilient futures? What kind of stories help build momentum toward proactive adaptation?

In 2022, Italy experienced five heatwaves of 35+ degrees Celsius, southern Switzerland a persistent drought...

Suffering, the last choice offered by John Holdren, describes the direct or mediated experience of the rapidly growing number of individuals and communities negatively (or even severely) impacted by climate emergencies. In 2022, Italy experienced five heatwaves of 35+ degrees Celsius, southern Switzerland a persistent drought, and Pakistan suffered the worst floods in its history, while nearly 80,000 fires raged in the Amazon. Without forward-thinking mitigation and adaptation approaches, the third ‹choice› may take over as the prevalent modus operandi for responding to the climate crisis.

Pakistan suffered the worst floods in its history, while nearly 80,000 fires raged in the Amazon.

The self, the commons and the planet are at the centre of our design interventions to cope with today's systemic challenges.

Some questions for designers include:

How might we address the suffering we inflict upon our world due to the predominant orientation towards growth and consumption? How can we move from temporary problem-solving approaches to resilient communities of care? How do we overcome the value-action gap in our individual behaviours? Opportunity areas might include humanitarian assistance, disaster relief, food security, population displacement and people/planet-centric service design for regional and global institutions.

Designers are starting to address adaptation and suffering, but are we equipped to contribute to mitigation? *How do we want to live together? And how do we get there? How will we design/work a generation from now? What new competencies do we need to develop as designers? What new professional roles will evolve? Which ‹game changers› will shape our expectations for the future?*

So far the 21st century has been marked by a multitude of systemic, interconnected crises, which challenge designers to reimagine long-held beliefs, dependencies, and established ways of doing things and act out of a sound understanding of sociotechnical and natural systems. To this end, ESD applies a systemic perspective on human and non-human stakeholders and their interrelationships within the planet's ecological limits. This transdisciplinary design approach seeks to expand not only the roles, capacities and alliances in which designers collaborate but also the scope of what is understood as designable.

Design can contribute directly to various fields of knowledge for sustainability transitions, as many aspects are an inherent part of the design practice:

Future Literacy: The ability to imagine a desirable future and translate visions into pathways of action. The ability to think about values and to create (normative) frameworks, goals and targets.
System Literacy: The ability to analyse complex problems in a current state and in its history.
Transformative Literacy: The ability to foster and host collaborative processes and innovation, to bridge the gaps between different mindsets and approaches.

With the new Master in Eco-Social Design programme at HSLU, we provide a platform for designers to hone these abilities and to explore new roles for designers to apply collaborative and practice-oriented design approaches to address social, environmental, economic and cultural issues. The self, the commons and the planet are at the centre of our design interventions to cope with today's systemic challenges. The programme is concerned with the well-being of present and future societies and explores established

and emerging roles for designers to contribute to the eco-social transformation.

To this end, we consider and further develop the following design strategies:

Post-solutionism: Instead of proclaiming the ‹one way› of doing things right, the MA in Eco-Social Design programme is structured as a platform for collective and open exploration and experimentation.

Optimistic attitude: The focus lies on the forward-looking development of new strategies and roles for designers to contribute to more sustainable, resilient and just futures.

The confluence of different worlds: The programme cultivates inter- and transdisciplinarity and functions as a space for both intellectual and design-practical experimentation.

Positioning diversity of methods and subjects (through project and focus modules) as a strength: Developing and sharpening one's interpretation and practice as an eco-social designer.

Utopia and professionalisation: Wanting to change existing conditions, but at the same time being able to act within them. Graduate studies as a place for utopias that inspire concrete solutions.

Students of ESD become agents of change who navigate complex systems, collaborate with human and non-human actors and design interventions at various scales – from policymaking to prototyping regulations, community activism and individual actions. The programme and its network of partners from academia, culture, NGOs and industry provide students with the infrastructure to explore and develop such stances in discourse and practice.

«When we quit thinking primarily about ourselves and our own self-preservation, we undergo a truly heroic transformation of consciousness.»
– Joseph Campbell[5]

1 James Kanter and Andrew C. Revkin, «World Scientists Near Consensus on Warming», in: *New York Times*, 30 Jan 2007, https://www.nytimes.com/2007/01/30/world/30climate.html (retrieved 23 Oct 2022).

2 European Environmental Agency, «What Is the Difference between Adaptation and Mitigation?», https://www.eea.europa.eu/help/faq/what-is-the-difference-between (retrieved 17 Oct 2022).

3 Samer Fawzy, Ahmed I. Osman, John Doran and David W. Rooney, «Strategies for Mitigation of Climate Change. A Review», in: *Environmental Chemistry Letters* 18 (2020), pp. 2069–2094, here p. 2073, doi:10.1007/s10311-020-01059-w.

4 Hans-Otto Pörtner, Debra C. Roberts, Elvira Poloczanska, Katja Mintenbeck, Melinda Tignor, Andrés Alegría, Marlies Craig, Stefanie Langsdorf, Sina Löschke, Vincent Möller and Andrew Okem, «IPCC, 2022. Summary for Policymakers», in: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change,* eds. Hans-Otto Pörtner, Debra C. Roberts, Melinda Tignor, Elvira Poloczanska, Katja Mintenbeck, Andrés Alegría, Marlies Craig, Stefanie Langsdorf, Sina Löschke, Vincent Möller, Andrew Okem and Bardhyl Rama, Cambridge, UK and New York, pp. 3–33, here p. 19.

5 Joseph Campbell with Bill Moyers, *Power of Myth*, New York 1988, p. 126.

Contributors

Beatrice Alves Capa-Schilliger is a businesswoman with extensive professional training in the area of management and travel (qualified travel specialist). For several years she worked in the tourism industry, in project management/IT among other positions and in the industry association. In 2009 she joined the Lucerne School of Art and Design – Workshops, Labs & Studios team, which she has headed for six years. Her tasks include directing the operations and personnel of the workshops, the implementation of all security regulations, as well as the strategic further development of the workshops through future-oriented and open thinking.

Isabelle Bentz is head of the Data Design + Art Bachelor's programme at Lucerne School of Art and Design. Her focus is on the conceptualisation and design of data-based information visualisation in space. After completing her degree in architecture at ETH Zurich, she worked as an architect and artistic head, e.g. in the high-rise development at Skidmore, Owings and Merrill LLP in New York and at Hosoya Schaefer Architects in Zurich. From 2013 to 2015 she was head of development at the Institute of Multimedia Production, HTW Chur. Isabelle Bentz gathered teaching experience at the Media x Design Laboratory of EPFL Lausanne, at Zurich University of the Arts, and from 2013 to 2019 as lecturer for information visualisation at the Institute of Multimedia Production of FHGR Chur (formerly HTW Chur) and at the Bern University of Applied Sciences (HKB). Since January 2020 she has developed and headed the new Data Design + Art Bachelor's programme in Lucerne.

Wolfgang Brückle has been working as a senior lecturer in the fields of art history, photography and cultural critique at the Lucerne School of Art and Design since 2013. He studied art history and letters at the universities of Marburg, Dijon and Hamburg, where he was awarded a PhD in 2001. He worked as an assistant curator at the Staatsgalerie Stuttgart and as an assistant professor or senior research fellow at the universities of Stuttgart, Bern, Essex and Zurich. His fields of research include medieval art, art theory, museology, contemporary art and the history of photography. He was the head of two SNSF-funded research projects entitled *Post-Photography* and *Curating Photography in the Networked Image Economy* from 2018 to 2022, and he is one of the principal investigators of the research project *Flüchtiges Sammeln* [Collecting the Ephemeral].

Orlando Budelacci is vice dean of the Lucerne School of Art and Design. He studied philosophy, art history and law in Basel and earned his PhD with a thesis on Kant's political philosophy and ethics. He was managing director of the Swiss National Science Foundation research project Bildkritik eikones [Iconic Criticism eikones] at the University of Basel. Since 2015 he has been responsible for education programmes in film and visual communication. He has published on issues of philosophy and ethics and on contemporary art. His most recent book deals with questions of the ethics of artificial intelligence and with the question of how technological development impacts humans and their creativity. He is also chairman of the HSLU Ethics Commission and lecturer in the Bachelor's programme in Artificial Intelligence and Machine Learning (philosophy, ethics).

Gabriela Christen studied art history, French literature and philosophy in Basel, Paris, Vienna, Zurich and Bern. After her studies she worked as a research associate at the Thomas Ammann Fine Arts gallery, and then as project manager and curator at the Swiss National Museum. From 1994 to 1996 she was director of the museums of the canton of Nidwalden. From 1996 to 2009 she was culture editor at Swiss Radio SRF, responsible for the areas of visual arts and exhibitions. From 1999 to 2009 she lectured on theory at the department of Art & Media at Zurich University of the Arts (ZHdK). From 2009 to 2010 she was deputy director of the ipf Institute for the Performing Arts and Film at the ZHdK. In 2003 she graduated with a dissertation on the topic of the image of women in Ferdinand Hodler, published in 2008: *Ferdinand Hodler – Unendlichkeit und Tod*. In addition, she has been active as an art studies commentator with an emphasis on Swiss art around 1900 and contemporary art. From 2010 to 2022 she was the dean of Lucerne School of Art and Design, since then she has been a lecturer and head of the Plattform zur Sakrallandschaft der Zentralschweiz [Platform on the Sacred Landscape of Central Switzerland] project. Since March 2022 she has served as head of Strategy and Transformation of Baldegg Monastery, and since July 2022 as President of the Lucerne Theatre Foundation.

Ibrahim Demirci holds a professional degree as a tourist specialist and worked in the tourism and event industry for several years. Since April 2021 he has been the head of the Central Secretariat at Lucerne School of Art and Design. In this function he is responsible for the entire student administration as well as the front office.

Karin Fink is a geographer and relational designer, co-lead of the Master Eco-Social Design at the Lucerne University of Applied Arts and Sciences and project leader for the State of the Environment Report by the Federal Council at the Federal Office for the Environment (FOEN). She works at the interface between science and policy, with a focus on system analysis, sustainability transition, strategic foresight and communication. In her work she explores how collaboration between diverse (scientific) disciplines, combined with traditional and tacit knowledge as well as craftsmanship, may help us to innovate and create sustainable lifestyles within the limits of our planet.

Sabine Gebhardt Fink has been professor of Contemporary Art at the Lucerne School of Art and Design since 2011 and is also head of the Master of Arts in Fine Arts – with majors in Art in Public Spheres, Critical Image Practices and Art Teaching. She studied art history in Munich and Basel and received her doctorate in 2002 for a thesis titled *Transformation der Aktion* [Transformation of Action]. As a postdoctoral researcher she worked on the research project *Das Verhältnis der Künste* [The Relationship of the Arts] at the Institute for Cultural Studies in the Arts at Zurich University of the Arts. She also works as a curator and conducts research on art education, contemporary art, performance art and media theory. She was head of the Camp# project at the Lucerne School of Art and Design and is currently researching «Revolving Performance Histories» in the context of the arts and sciences research project *Performance Chronik Basel* (Ausstellung *Bang Bang*, Tinguely Museum Basel 2022).

Lilia Glanzmann heads the Bachelor's programme in Textile Design at Lucerne School of Art and Design. Until 2021 she was managing director and delegate of the board of directors of Hochparterre, the Swiss publishing house for architecture, design and planning. For 13 years she was that publisher's editor for design and culture. She studied textile design at the Lucerne School of Art and Design and journalism at MAZ, the Swiss School of Journalism. She works as a free-lance journalist for architecture and design, among others for *Frame – the Great Indoors* and *Baumeister – Das Architekturmagazin*. She is the co-director responsible for curation and operations at Zeughaus Teufen/AR.

Monika Gold studied graphic design in Zurich (at what is now the Zurich University of the Arts, ZHdK) and worked in Switzerland and abroad as a graphic designer before starting to teach graphic design in the 1990s. Later she studied design theory at the ZHdK. «Magical Mystery Tour» was the title of her thesis on design theory, for which she interviewed students, lecturers and graphic designers about how one teaches and learns visual design. She is specialised in the praxis and theory of graphic design, the didactics of design, and on colour and poster design. For nearly 20 years she has been fostering the exchange on graphic design between Switzerland and Ukraine and Russia – through teaching exchanges, cultural tours and exhibitions. Since 2010 she has directed the Bachelor's programme in Graphic Design at the Lucerne School of Art and Design. She continues to research and experiment with all facets of graphic design and also works as a curator and networker.

Silvia Henke is a cultural scholar, and since 2001 a professor of cultural theory at the Lucerne School of Art and Design. She lectures in the Bachelor's and Master's programmes, with emphases in art and art education, auto-ethnography and aesthetic thought. Her research emphases are on art and policy, art and religion, and on art and eco-aesthetics. In addition, she works as a free-lance commentator and translator. She studied German and French philology as well as philosophy and art history at the universities of Basel and Hamburg, where she earned her doctorate in the theory of drama. From 1990 to 2000 she lectured on modern German literature at the University of Basel. Her most recent publication (in collaboration with Dieter Mersch, Thomas Strässle, and Nicolaj van der Meulen): *Manifesto of Artistic Research. A Defense Against Its Advocates*, Zurich 2020.
For further publications, see www.silviahenke.ch.

Jacqueline Holzer has been dean of the Lucerne School of Art and Design since 1 March 2022. Before starting this position, she was the vice dean for Interdisciplinarity and Transformation. From 2013 to 2020 she headed the Theatre programme at the Zurich University of the Arts. Over a period of ten years, she was a professor at the Lucerne School of Business; in 2009 she was a visiting professor at the University of Edinburgh. She has performed research on cultural studies, and the sociology of science and innovation.

Karina Kaindl studied anthropology, economics and geography at the University of Basel. She worked as an exhibition organiser and research associate at the Museum der Kulturen Basel, as a project manager at WHO and the University of Geneva, and as a project officer at a philanthropic foundation. After several study and research stays in Ghana, Bolivia, Peru, China and India, she joined the Lucerne School of Art & Design in 2012 as quality officer and project head specializing in curriculum development, sustainability and internationalization.

San Keller is co-head of the Bachelor's programme in Fine Arts and Art & Design Education at Lucerne School of Art and Design. He is well known for his participatory performances and ephemeral actions, which frequently approximate social experiments. The overall tone of Keller's oeuvre is critical, conceptual and playful and reflects on the relationship between art and life. His investigation of art as service provision ultimately gives the audience the opportunity to question outdated paradigms and experience them in a new way while also placing them under critical scrutiny. His actions start with contractual arrangements that set out the rules for his works, but since these rely on the participation of others, the course they take and their ultimate outcomes remain unpredictable.

Thomas Knüsel lives and works in Zurich and Lucerne. He studied fine arts and media art at the Lucerne School of Art and Design and the Zurich University of the Arts, where he completed a Master of Fine Arts degree in 2016. Since 2018 he has been working at the Lucerne School of Art and Design, where he helped develop the Media Lab and taught in the Camera Arts study programme. He now runs the school's new MediaDock. Knüsel is also a senior research associate to Professor Karin Sander at ETH Zurich. In his artistic practice he assembles various media, materials and artefacts into prototype systems that raise questions about the relationship between subjective perception and scientific certainty. His works have been published and exhibited both nationally and internationally. See www.tknusel.ch for more information.

Florian Krautkrämer is a film and media scholar and heads up the interdisciplinary programme +Colabor at the Lucerne School of Art and Design. Previously he held a deputy professorship in film studies at Johannes Gutenberg University Mainz and was a research associate at Braunschweig University of Art. He earned his doctorate degree with a thesis on *Schrift im Film* (Writing in Film) and realised several experimental and documentary films. His research includes documentary film, film theory and film industry. He is currently the head of a SNSF research project about interactive documentaries.

Rachel Mader is an art scholar. Since 2012 she has been head of the Competence Center for Art and Design in Public Space at the Lucerne School of Art and Design. She is in charge of practice-oriented research projects on artistic self-organisation and cultural policies, art mediation, collecting ephemeral art (live performances), art schools as heterotopias, as well as projects situated in basic research on subjects such as artistic research, institutional studies, ambiguity in art, and art and politics. Rachel Mader is co-president of the Swiss Artistic Research Network (SARN), and she is one of the principal investigators of the research project *Flüchtiges Sammeln* [Collecting the Ephemeral].

Klaus Marek studied product design at the University of Design Schwäbisch Gmünd and architecture at the University of Stuttgart. As a product designer he took part in various studies and design-on-site projects for the Design Office Produktentwicklung Roericht in Ulm and worked for the Trendbüro Hamburg under Mathias Horx researching trends and future developments. As an architect he worked for the Basel Architects Herzog & de Meuron on various types of projects. As an independent designer he participated in various cooperative projects, among them the conceptualization and design of writing instruments for STABILO. Until 2018 he was also lecturer in product and process design at the University of Design Schwäbisch Gmünd. Since 2015 he has been a lecturer in the Master's degree programme at the Lucerne School of Art and Design; in 2017 he joined the research team of the Competence Center Visual Narrative, and since 2020 he has been head of the Bachelor's programme in Spatial Design.

Guillermina Noël is a design researcher and educator. She is head of the Design Management, International Bachelor's programme at the Lucerne School of Art and Design. She holds a PhD in Design Sciences from the University IUAV of Venice, Italy. Guillermina applies a beyond-human–centred, evidence-based, and outcomes-oriented approach to design. Prior to joining the Lucerne School of Art and Design, Guillermina was a design researcher at the Faculty of Medicine & Dentistry, University of Alberta, Canada. Guillermina works with multidisciplinary health teams to improve care practices and implement health research into practice to influence everyday decisions. She is the director of the Health Design Network, a platform which enables health design professionals to exchange knowledge. Guillermina is a member of the Competence Center for Design and Management, also at the Lucerne School of Art and Design. She is currently interested in the improvement of design education. Guillermina is engaging in a process of reflection to re-examine what we are doing, why we are doing it, and which current practices require change. She is exploring what is needed to achieve high-quality design education.

Alexandra Pfammatter is a Swiss media artist. She holds a Bachelor's degree in Camera Arts from the Lucerne School of Art and Design and completed her Master's degree in Computational Arts at Goldsmiths, University of London. Since 2022 she has been an associate of the MediaDock at the Lucerne School of Art and Design.

Elke Rentemeister is a trained design technician who studied film and television studies, social psychology and anthropology, and communication studies at Ruhr University in Bochum. She works as a senior researcher in the Competence Center Visual Narrative of the Lucerne School of Art and Design. In addition, she teaches media theory and experimental approaches to audiovisual media design in the Master's programmes Film and Animation. Her research and teaching activities explore alternative aesthetics, new formats and technologies.

Nicole Rickli Wasem has a degree in business economics and has been the head of Administration and Infrastructure at the Lucerne School of Art and Design since 2014. She previously worked for 15 years as managing director of a patent law firm.

Christoph Schindler studied architecture at TU Kaiserslautern and received his doctorate from ETH Zurich. Since 2005 he has been a partner at schindlersalmerón in Zurich, responsible for product development with a focus on contract furniture and individual pieces. In 2014 he became head of the Object Design programme at the Lucerne School of Art and Design.

Dagmar Steffen studied product design at the University of Art and Design Offenbach am Main and at the Edinburgh College of Art, followed by many years of free-lance work as a design journalist, author and exhibition curator. She has been teaching at several design academies in Germany while carrying out research through visits at the Aalto School of Art, Design and Architecture in Helsinki. She earned her PhD with a thesis on the interplay of theory and practice in use-inspired basic research, and in experimental design at the University of Wuppertal. She joined the Lucerne School of Art and Design in 2008 as a design researcher at the Competence Center for Design and Management and as a lecturer and mentor in the Bachelor's and Master's programmes in Product Design. Her teaching covers product semantics, material culture, history and theories of design.

Andreas Unteidig is a design researcher concerned with how we (as societies, businesses, and organisations) organise necessary transitions toward more sustainable, just, and resilient futures. He is co-leading the Master's programme in Eco-Social Design at HSLU and is an associated researcher at the Weizenbaum Institute for the Networked Society in Berlin. He studied Design at Köln International School of Design and Parsons/ The New School and holds a PhD from Berlin University of the Arts. As a consultant, Andreas helps initiate, inform and design change processes in collaboration with stakeholders from academia and civil society as well as from industry and the public sector.

Sebastian Utzni is co-head of the Bachelor's programme in Fine Arts and Art & Design Education at the Lucerne School of Art and Design. He is a story collector and storyteller, a visual artist working between and across various disciplines. He believes that everything is (probably) connected and he tries to make sense of these connections without searching for any grand unifying theory: «My work has no direct political message. I am not expressing what people should think or how they should act. For me, my work is more about making things visible. I try to create tools that allow people to start thinking or feeling about things happening.» Recent exhibitions include Weltkunstzimmer Düsseldorf 2022, Museum für Druckkunst Leipzig 2021, Kunstmuseum Luzern 2020, Art Cologne 2019, Art Brussels 2019, Kunstmuseum Reutlingen 2019, NADA New York 2018, Palais de Beaux Arts (BOZAR) Brussels 2018, Art Rotterdam 2017, Herrmann Germann Contemporary Zurich 2017, o.T. Raum für aktuelle Kunst Luzern 2017, Haus Konstruktiv Zurich 2016, Helmhaus Zurich 2016, Kunstmuseum Olten 2016 etc. www.sebastianutzni.com

Birk Weiberg studied art history, media theory, philosophy and media arts in Karlsruhe and Berlin. He earned his PhD in art history from the University of Zurich with a thesis on the development of optical effects in Hollywood cinema. He has been researching and teaching at the Zurich University of the Arts and the Lucerne School of Art and Design. His current research interests include the histories and aesthetics of photographic images, post-digital culture, artistic practices and research, and the digital transformation of research practices. At the Lucerne School of Art and Design he is project head for Interdisciplinarity and Transformation and teaches in the Bachelor's programme Data Design + Art.

Jan-Christoph Zoels is head of the Master's programmes in design (Design, Digital Ideation, Eco-Social Design, Service Design) at the Lucerne School of Art and Design. He is a founding partner of Experientia, a service design studio in Turin and Basel. He advocates for a strategic integration of behavioural modelling, design, prototyping and iterative testing to improve the sustainability of products, services, environments, and systems. Originally from Germany, he taught at Rhode Island School of Design (RISD) and was a senior designer at Sony and director of information architecture at Sapient. Returning to Italy, he joined Interaction Design Institute Ivrea (IDII) as a senior associate professor, where he ran business innovation workshops called Applied Dreams. He has also taught at Jan Van Eyck Academy (Netherlands), Samsung's Innovative Design Laboratory (Korea), Copenhagen Institute for Interaction Design (Denmark), UGA Terry Business School (USA), Free University of Bozen-Bolzano, Politecnico di Milano, and Domus Academy (Italy).

Nummer

The *Nummer* series covers current focus areas and developments at the Lucerne School of Art and Design. It is published in loose sequence at a rate of approximately one issue per year. The publications bring together texts and images from various contexts of research, higher education and further education along with features on special events, conferences and anniversaries.

Series editor
Lucerne School of Art and Design,
Jacqueline Holzer

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Imprint

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Update Available: Transforming Education in Design, Film and Fine Arts

Issue editors
Orlando Budelacci, Jacqueline Holzer and Birk Weiberg

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Photos (cover and inside)

The photos are part of an ongoing series documenting the process of material experiments in the studio of Martin Heynen. Starting out as an environmental engineer Martin Heynen did a degree change graduating at the Lucerne School of Art and Design in 2017. Since then he lives and works as an artist in Zurich.

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Nummer 11 «Update Available»

The Lucerne School of Art and Design has undergone a profound transformation process. In the course of developing the Bachelor curriculum, the individual programmes were examined: Are students sufficiently prepared for (digital) change when they graduate? Are they able to realize transformations through critical thinking? Do they have enough self-confidence and empathy to collaborate in diverse teams? Addressing these questions resulted in a fundamental update of the education programmes. The publication «Update Available» follows the ups and downs of this process.

Die Hochschule Luzern – Design & Kunst hat einen tiefgreifenden Transformationsprozess durchlaufen. Im Zuge einer Entwicklung des Bachelor-Curriculums wurden die Studienrichtungen durchleuchtet: Sind die Studierenden nach ihrem Abschluss genügend auf den (digitalen) Wandel vorbereitet? Vermögen sie kritisch denkend Transformationen zu realisieren? Verfügen sie über genügend Selbstbewusstsein und Empathie, um in diversen Teams zusammenzuarbeiten?
Die Bearbeitung dieser Fragen mündete in einem grundlegenden Update der Ausbildung. Die Publikation «Update Available» folgt dem Entstehen der neuen Curricula.