Representing and shaping regenerative futures: a context-specific approach to art and design education

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Abstract

We live in a time of accumulating economic, environmental, social, political, and cultural crises. The current systemic crisis demands various transitions: from linear to circular, destructive to regenerative, and individual to collective. As we face uncertain times, we must consider new and diverse perspectives about how the future may look and feel. These possible futures help us better understand their potential and make decisions about the futures we wish to embrace. In this paper, we will highlight context-specific art and design practices to create regenerative imaginaries and prototypes for the future. This context-specific approach fundamentally builds on comprehensive fieldwork and participation to interact profoundly with the environment and its actors. In particular, the paper focuses on how we embed these practices from our research in higher art and design education. We will discuss two practice-based master-level courses that introduced art and design students to specific societal challenges. Both courses engaged students in representing and shaping regenerative futures by learning to connect with specific local manifestations of global issues. The sensibility of real-world locality allowed them to develop skills in exploring, collaborating, and reimagining contextual issues through art and design methods and artifacts. Our ambition as researchers and educators working in this context is to develop an educational system that is locally embedded but globally connected. Our agenda is focused on developing methods, strategies, and tools focussing on challenges that are close to us but simultaneously reflect and resonate globally about wicked problems.

Author keywords

regenerative futures; art and design education; context-specific learning; fieldwork

Introduction

Our society finds itself in a turbulent and complex transition period characterized by friction and failing economic, political, social, environmental, educational, and cultural systems (Rotmans, 2017). The accumulation of these crises can be characterized as *wicked problems* (Rittel & Webber, 1977) that create uncertainty about the future and lead to conflict and social resistance to change (Latour & Weibel, 2020; Morton, 2018; Adam et al., 2019). The wicked nature of accumulating crises are symptoms of a system that no longer provides sustainable prospects for the future. This system, which is organized on a global scale, risks neglecting its impact on local people and their living environment. Rather than withdrawing to a closed-off localism, focusing our efforts on the concreteness of locality will allow us to open horizons to the complexity of the global (Latour, 2018).

To facilitate the transition towards a regenerative future, we focus on a context-specific approach to address wicked problems on a local scale to develop diverse perspectives on regenerating regional ecosystems (Gibbons, 2020). Wicked problems require an approach that goes beyond the traditional problem-solving process, as we see, for instance, in industrial design where marketable solutions are created from the single perspective of a client (Cross, 2000). Rather, Haraway describes a mission to "generate problems, elicit powerful responses to devastating events, calm troubled waters and rebuild calm places" (2016, p.19)

We argue that art and design practitioners can represent and shape regenerative futures and thereby contribute to the development of desirable futures. To represent these diverse and inclusive futures, a context-specific approach is required that includes the viewpoints of various actors embedded in these contexts. Art and design languages allow us to make complex challenges tangible and give us tools to engage with these actors. Moreover, including different points of view is a way of embracing the uncertainties and complexities of the situation and obtaining a holistic perspective.

Art and design education plays a central role in this discourse, as it will shape the ideas, objects, and narratives that can shape the future. Therefore, it is important that we ask ourselves the following questions: How can we teach students

to think, act, and design in uncertain contexts? How can we unlearn commonplace paradigms that prove insufficient to deal with the complex challenges of contemporary crises? And how can we prepare new generations of students to take on a role in imagining and creating regenerative futures? (Whitehouse et al., 2020) As educators focused on artistic and design research, we feel it is our responsibility to ask these questions and to co-develop diverse perspectives on education and strategies to deal with wicked problems.

Context-specific education

In this paper, we elaborate on two case studies where we engaged with this context-specific role in art and design education. The courses were organized in and around our college campus which is located on a former coal mining site in Genk, Belgium. The city has had to reinvent itself several times over the last hundred years due to the combination of local and global crises. Genk transformed from a small village with vast heathlands around 1900 to a highly industrialized mining town in the sixties. The coal mining industry's demise in the late 1980s and the closure of a large Ford car manufacturing plant in 2014 forced the city of Genk and its residents once again to transform. Today, Genk is still the third largest industrial city in Flanders, and the surroundings of our campus transformed from an abandoned mining site to a creative and cultural hub. Nevertheless, the city is still struggling with complex issues such as pollution, biodiversity loss, high unemployment rates, poverty, global pandemics, and resource depletion. Our ambition as researchers and educators working in this context is to develop an educational system that is locally embedded and globally connected. Therefore, the art and design academy should not be an island but instead act within and with the communities in which it is spatially located while making global connections.

By integrating critical and profound context-specific learning in our educational system, we aim to educate a new generation of students who can contribute to the transformation towards a regenerative future (Hagenaars & Hendriks, 2021). Our approach is a way to unlearn and deconstruct mechanisms in art and design education that perpetuate the paradigms that prove insufficient to deal with the complex challenges of contemporary crises (Morton, 2018; Latour, 2020). When solutions are detached from the cultural and ecological context in which they are implemented, they can impact the local ecosystem in unforeseen ways and timescales (Fry, 1999). When human-centered design processes focus explicitly on problem-solving for generic personas, they result in generic solutions that neglect the social and natural ecosystem in which they are implemented. (Morton, 2018; Schwartz & Krabbendam, 2013) These insights, emerging from our art and design research practice, helped us develop two practice-based educational courses—*Post Ford Genk* (case 1) and *Shifting Grounds* (case 2)—focusing on working and learning in specific contexts. Their goal was not to teach in a linear top-down form but to explore and research collectively with our students and other actors in a specific context. This way of collaborative inquiry-based learning creates an inspiring, dynamic, and participatory learning environment of our living environment. (Ingold, 2019)

Case study 1: Post Ford Genk

The Post Ford Genk course focused on the industrial heritage of the car manufacturing facility of Ford in Genk. The company started producing cars in Genk In 1964. At its peak in 1994, Ford Genk employed over 14.000 people living in and around the city of Genk—which had a total population of 60.000 at the time. In 2014, the production was relocated to Valencia, and Ford Genk was forced to close permanently, resulting in a major social crisis and mass unemployment. Today, Genk is a Post-Fordist environment where residents, policymakers, and local industries collaborate to reimagine its future. The city invested in an r&d campus focused on the development of renewable energy systems to attract new types of industry. The city policymakers also aspire to transform the recycling industry into a circular manufacturing industry.

Left: **Figure 1.** Newspaper: *The Post Ford Genk* designed by participating students. / Middle: **Figure 2.** Robotic metal shaping inspired by traditional crafts by Cas Reynders. / Right: **Figure 3.** Flax fibers as a natural alternative to carbon fiber by Kato Herbots.

In this context, we challenged a team of master-level product design students to create regenerative futures for the city of Genk, local industries and its residents. The course was organized during one semester and divided into a collective and individual assignments. The collective assignment was focused on the development of a fictional newspaper, *The Post Ford Genk* (see Figure 1). The purpose of this collective assignment was to immerse the students in the local context and history. They interviewed several local actors to write articles from cultural, political, economic, and technical perspectives. While the interview conducted with the mayor was oriented to the future of Genk as a decentralized and circular economy, the former factory workers reminisced about the past and explained their struggles to find a new job.

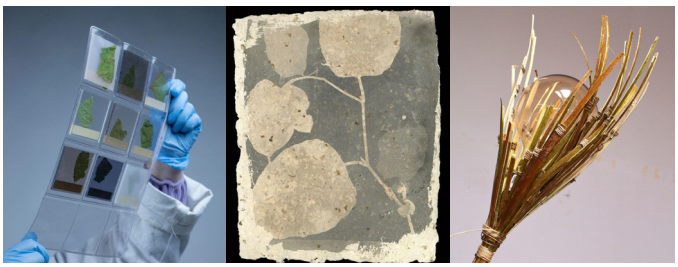
The starting point of the individual assignment was an op-ed that was a personal answer to the research question: What type of products, services, and systems can be designed based on the remaining resources post-Ford Genk? The op-ed was translated into several prototypes suggesting several future scenarios based on the industrial heritage of Ford Genk (see Figure 2-3). The role of these future prototypes is not to solve a specific problem but to create new possibilities that can kickstart new connections in the local ecosystem. To facilitate the debate the newspaper was published by the city of Genk and presented to a union for industrial manufacturers located in Genk. Through this public process, we aimed to set up new collaborations between local citizens, policy, and industry.

Case study 2: Shifting Grounds

In the interdisciplinary course *Shifting Grounds*, we challenged master-level art and design students to engage the issue of the invasive plant species Japanese knotweed within their practice. Originally from East Asia and brought to Europe as a highly desirable ornamental plant for gardens, Japanese

knotweed has quickly become perceived as a significant invasive ecological and economic threat. Through its rapid spread, the plant is not only straining our local biodiversity, but the issue also extends globally. Although *Shifting Grounds* mainly focused on the context of Genk and its surroundings, we collaborated with other organizations such as Trajna (Ljubljana, Slovenia) and Timelab (Ghent, Belgium), and researchers such as Antia Iglesias (Vigo, Spain) who are working with Japanese knotweed in their local context. This way of working exposed the opportunities between local action and global thinking for our students.

The course started with an intensive three-day immersion to introduce students to the context of Japanese knotweed and the many perspectives on this issue. The first day consisted of presentations on the general context of Japanese knotweed by (international) experts and a guided tour of a nature reserve in Genk by members of a nature preservation group. We also did a walk through the city to observe knotweed's presence in the built environment. On the second day, we introduced students to the potential of art and design practices in these kinds of contexts. A curator gave a lecture and held a group discussion on how contemporary art deals with topics like nature and the Anthropocene. Afterward, we shared our own research into the domain of Japanese knotweed and how we approached certain topics through art and design. This consisted of theoretical conceptualizations (including Anthropocene, rewilding, and vernacular design) and practical knowledge. We shared the latter through a workshop on dye extraction to gain familiarity with the materiality of the Japanese knotweed. All these activities were ways to have continuous conversations on the assumptions and ideas of the students and their relation to the natural environment and knotweed in particular. During the third day of immersion, we formalized these conversations during group discussions (sometimes in the field) and coaching sessions. From this point, the students started conceptualizing their own point of view through the eyes of their discipline and practice. Group-coaching sessions guided them to develop work over the following five weeks, culminating in a group exhibition.



Left: **Figure 5.** Speculative knotweed biolab scenario by Esmeralda Mertens and Alexsandro Celea. / Middle: **Figure 6.** Photograms on knotweed paper by Kevin Vaesen. / Right: **Figure 7.** Lamp object with knotweed stems by Tijl Custers.

The student work of *Shifting Grounds* was diverse and ranged from visualizing speculative scenarios (see Figure 5) to projects focusing on plant material research (see Figure 6), architectural interventions in the landscape, and knotweed-based products (see Figure 7). Other projects had less tangible outcomes such as a knotweed weaving co-creation workshop, a generative game model study on the plant's growth, and a knotweed tea ceremony. As a summary, we made the 'Not in my backyard' publication, where color analysis, conceptual background, matter research, photography and graphic design experimentation are presented through different voices that help us better understand our vegetal partner. (Vrancken and Kosten, 2021)

Discussion

In this discussion, we compare the methods used in our case studies that apply a context-specific approach to art and design education, and discuss the challenges we encountered. Both cases are characterized by fieldwork; researching the ecosystem of local actors. In both cases, fieldwork was essential for understanding the complexities related to a specific context and translating them into regenerative futures. The methods for including the ecosystem of local actors differ because of the nature of the actors that were involved in the two cases. In case 1, diverse perspectives of local actors were mapped by interviewing former workers, the local mayor, industry leaders, and the team of product design students. Actors here are people representing different viewpoints on the topic *Post Ford Genk*. In case 2, the term "actor" is expanded to more-than-human actors in line with the conceptualizations of Latour (2018). The lead actor in the case 2 scenario is the plant species Japanese Knotweed. As plants can't be interviewed in a traditional method, including the perspective of the Japanese Knotweed required a tailored method inspired by anthropology, such as participative observation (Ingold, 2013).

Representing the diverse perspectives of humans and more-than-human actors required methods tailored to the specific nature of the actor. In case 1, this was done through articles, pictures, drawings, and prototypes bundled in a newspaper. A format that could represent the political, economic, social, and environmental layers of the Post Ford Genk context. In case 2, this was assembled in a publication that showed the research process and the various futures it represented. Although case 1 was organized within the curriculum of one specific discipline and case 2 was organized across the curricula of various disciplines, both cases benefited largely from a multidisciplinary approach to represent and shape diverse perspectives. The role of the art and design students in this process clearly diverts from the traditional problem-solving perspective. Our context-specific design approach is more focused on problem framing, understating the ecosystem of which they are part before proposing solutions. The added value of the art and design students in the process was the representation of the complex issue at hand in visual and tangible ways.

The challenges for developing a context-specific art and design practice relate to temporality and locality. The context-specific nature requires a tailor-made approach and preparation, as these challenges can vary greatly from context to context. Identifying these challenges can be a labor- and time-intensive process for both lecturers and students. Because much time has to be spent on exploring the context and dealing with uncertainties in the research and design process, less time can be put into the outcome of the final project that students develop within the timeframe of the course. In addition to providing a realistic timeframe, a process evaluation is more appropriate for assessing context-specific assignments. Engaging local participants requires students to connect with people, which can be particularly challenging for international students who do not speak the language. But even students

who speak the language require the right social skills to connect and attune with human and non-human actors that represent the local ecosystem.

Conclusion

This paper highlighted the potential and importance of context-specific practices in arts and design education to create regenerative futures. This context-specific approach fundamentally builds on comprehensive fieldwork to interact profoundly with the environment and its human and more-than-human actors. By immersing our students in context-specific situations and confronting them with wicked global problems on a local scale, we aim to develop their skills in representing and shaping regenerative futures.

We are convinced that the future of art and design education should be organized around contexts and collectives rather than disciplines that promote unembedded and individual artists and designers. Teaching generic processes—part of globalized systems—disconnects future art and design practitioners from the real-world contexts in which they live and work.

Although it is still too soon to prove that both cases lead to regenerated futures, these context-specific research, learning, and design approaches create more conditions for qualitative collaborations between artists, designers, citizens, and other actors in our environment.

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