

RHYCYCLING – FLUID BORDERLAND. PROCESSES OF KNOWLEDGE CREATION

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ABSTRACT

This conference paper aims to give an inside view of different processes of knowledge creation that occurred during the two years of field research (2010 – 2012) on aesthetics of sustainability in the tri-national border area of Switzerland, Germany and France along the Rhine river. The research team worked with academic and non-academic experts (project partners, protagonists) and users of an interactive computer platform. The main focus is on where, how and with whom knowledge creation takes place and how it is presented. Regarding public presentations of *RhyCycling's* research results, the non-textual presentation format (interactive computer platform) and its impact on reception are of interest.

Inter- and transdisciplinary teams are working increasingly with 'open' research concepts. This kind of continual transformation and circulation of knowledge in different forms and formats is an 'endless' and rather unstable process of knowledge creation. Regarding reception, those circumstances of instability are creative but demanding on the viewer's imagination. By perceiving the material of the interactive computer platform as a means for creating an individual storyline, transformation may be experienced through involvement, insofar as the platform supports possible reconfigurations of one's own lifestyle in a playful way.

INTRODUCTION

The river Rhine as a flowing border area defines the municipal, cantonal and national boundaries and is utilised in different ways. It is a microcosm with great ecological and socio-economic diversity. The research and exhibition project *RhyCycling* examined the border region of Switzerland, Germany and France along the Rhine and focused on how the human and non-human environment is connected.

The river and its environment are regarded as an interdependent network and communication system of human and non-human protagonists. [1] Bruno Latour's "political ecology," which calls for a transition from the doctrine of domination of nature to a participation of everyone in society, relies on that concept. [2] Beside the audio/visual research on recent (water ecological) circumstances above and below the surface and along the water's edge, with emphasis on fish fauna, energy and the utilisation of the riverbank, planned or imagined future changes for that space were examined as well. The research relies on the so-called "aesthetics of sustainability" which is found in (media) art and is affected by a perception of current theories of aesthetics including nature. [3] It differs from scientific and technical positions by the choice of the focal points in content, methods and the forms of presentation.

An interdisciplinary team conducted the research, based mostly on methods from visual anthropology, by observing phenomena of interest and by talking to different persons living and working at locations along the river. The team cooperated with partners from the local government, NGOs, universities or evaluation offices involved in sustainable development and ecology. The goal of the project was to provide insight into the network, the interdependencies, balances and imbalances of this ecological microcosm.



Fig. 1. The *RhyCycling* film team accompanied a kerosene tanker from Düsseldorf to Basel/Switzerland, 2011, *RhyCycling* team, set photography, ©*RhyCycling* team.

The edited research material – videos, sound essays, texts and graphics – was brought together in an interactive computer platform containing a complex search structure, visualising the interdependencies of content, places and keywords. Users build their own 'dramaturgy' and create their individual storylines by clicking through the material – an involvement which could lead to a (re-)considering, a reflection of the personal lifestyle. The platform was exhibited together with several video installations at the end of 2012 at the Port of Basel.

KNOWLEDGE CREATION

"Imagination is more important than knowledge. Knowledge is limited, but imagination embraces the whole world."

Albert Einstein

During the two years of field research in the tri-national border area, the research team worked together with academic and non-academic experts: with the project partners and with protagonists of the video recordings. This transdisciplinary collaboration consisted of different processes of knowledge creation, which were also brought under examination while exhibition visitors used the interactive computer platform (and continues to be examined

in the case of online users). Characteristics of knowledge were our main points of interest, dependent upon where, how and with whom knowledge is created and how it is presented. Therefore the interactive computer platform as non-textual presentation format of research results and its impact on reception are further focused upon.

The presentation and publication of research results, of knowledge, mostly takes place in textual formats although authors from science studies like Hans-Jörg Rheinberger or Karin Knorr Cetina argued that knowledge is constituted through experimental systems itself as well through the formats in which it is presented. [4] Therefore knowledge is not only inscribed in language and text. Media-based presentations of research results and processes of cognition are interdependent. That background served as a basis for the platform's concept of the interface, which was developed in the predecessor project *Check on Arrival* (about controlling systems at Zurich Airport) and adapted for the context of *RhyCycling*.

Both the transdisciplinary collaboration and the reception of the platform's contents by the public are processes whereby different forms of knowledge are created. Furthermore, not only is the determinable knowledge important, so is the material and formal conditionality of the production of knowledge. The tendency of artistic research processes, for instance, is to reveal how reflection takes place and with which medium. [5] Therefore, this approach to knowledge creation is an extension to aspects concerning media.



Fig. 2. Podium discussion *enkeltauglich?* during the closing event of the exhibition, 2012, Ketty Bertossi, photography, ©Ketty Bertossi.

To put it in a broader context: Internationally speaking, the involvement of the arts in research started at the beginning of the 1990s. An exception is, inter alia, in Switzerland, where research funding through federal funds began in the wake of the Bologna reforms around the year 2000. This development has led to upheaval. Arts as well as sciences were forced to reflect on their own approaches under these changed conditions. Meanwhile inter- and transdisciplinary teams increasingly act with an 'open' research concept. Knowledge creation, presentation and reception,

as well as the reflection of the related processes, are of central importance. Following the thoughts of Gabriele Brandstetter, who considers research to be an "ongoing process of rethinking" – of the achieved steps respectively the created (forms of) knowledge – a public presentation such as an exhibition, a performative event etc. wouldn't be the final result but a 'starting point' of an on going process which would be evaluated. [6] Hence knowledge could be seen as transformation and circulation between different forms and formats in an 'endless' process. This is a rather new point of view, especially in the realm of the performing arts with its limited time of access (duration of exhibition, concert length, etc.).

INVOLVED PARTIES

Team

The research team was interdisciplinary, with a range from humanities to natural science to art/design disciplines. A core team of four people – from visual anthropology, environmental studies, art theory, scenography – worked together quite closely for the concept and the research. Depending on the project phase and the personal expertise of each team member, we worked in different constellations, yet always with other collaborators who intervened from an 'external' point of view on the issues under consideration. It was a step-by-step approach and through negotiation we defined the direction of our research.

To the extended team belonged a musician who created sound essays of Basel's bridges – with a similar methodology used for the videos – working with sound captured from the urban environment. Furthermore the core team worked together with a graphic designer for the interface design and with a computer scientist who programmed the adaptation for the interactive computer platform. For the video production we collaborated with a video post-/production company.

Project Partners

In order to bridge the gap between theory and practice, the research team aimed at bringing together experts from different disciplines. In several workshops we intended to come to insights and knowledge despite differences and controversies. During the workshops we discussed the 'utility' of sustainability concepts – a rather worn term – and the future development of the region. The discussions about sustainability concepts were partly held in a controversial way. Finally philosophers proposed the terminology 'green culture' as an alternative to 'sustainability.' The somewhat abstract term 'sustainability' used particularly in a scientific, technical and economic context would thus be replaced by a broader and more politically established one. On the other hand and of equal significance, sustainability was explained as a concern of cultural interest – coinciding with a cultural studies approach and the transdisciplinary approach of the project. In the following workshop, after the group debate about first visions on the 'best of all worlds' in 40 or 50 years' time, it became clear that there is a pressing need to develop a 'grandchildren-proof' way of living. The debates were deepened in a panel discussion

at the exhibition's finishing event with experts from the local government, from design and visionary urban living projects in Switzerland and Germany involving the public in the debate. Questions about dangers, opportunities and courses of action were raised like: What does it mean to become climate neutral to leave a liveable world to our grandchildren? Are adequate efforts being made by the canton of Basel-Stadt, which aspires to a '2000-Watt-society' and is launching appropriate activities? What kind of framework should a role model country like Switzerland – technically and economically speaking – offer to realise sustainable energy and climate politics? [7], [8]

This thinking and re-visioning intended to reflect on one's own life. In particular, issues such as reduction and renunciation were covered repeatedly. Recently, these are also key issues in the debate on attaining a "good society" [9] or the "aesthetics of omission" [10] led by agents from the government or NGOs as well as from art and design.



Fig. 3. Podium discussants: P.M., author of Neustart Schweiz and Daniel Gafner, product designer postfossil, 2012, Ketty Bertossi, photography, ©Ketty Bertossi.

Protagonists

An agreement among those involved was important in order to 'create knowledge' with the agents on site (at least temporarily). The cooperation with the people being filmed resulted in an alternation between approaching and distancing, as anthropologist Peter Crawford describes with 'meandering' in the anthropological process of "becoming and othering." [11]

With this technique, researchers act during the interviews as 'accomplices' even if they do not agree with everything being said. In that moment of deep involvement they are interested in the other's opinion. They are approaching, trying to understand the ideas or the motives for certain actions – they are 'becoming.' Afterwards while analysing and editing the material they 'return' to their critical, distant roles. Regarding Crawford's concept, it is a process of 'othering.'

This concept is also appropriate for describing the situations we encountered while conducting semi-structured video interviews/ talks or observing everyday life and work all along the Rhine with a video camera and sound recorder in hand. We needed to create 'closeness' with interviewees, getting involved with them beyond the filmic situation. For instance, before we started to record, we engaged the protagonists in conversation and observed their working day.

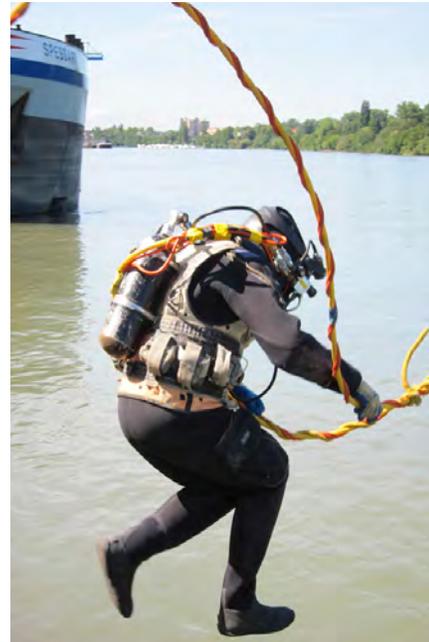


Fig. 4. Filming of underwater construction site at Auhafen Basel/Switzerland, 2011, RhyCycling team, set photography ©RhyCycling team.

Afterward, we discussed our mutual interests in that specific field and what could be filmed jointly with them. During the filming we tried to create an atmosphere of trust. The starting point was a rather open question. The protagonists had the possibility of setting a direction, which we followed by relating to their answers – while not forgetting to seek answers to our own main research questions. The pattern of this qualitative semi-structured filmic interview as method of creating knowledge by a process of exchange (in questioning and answering) gives the interviewees a lot of freedom to talk about their own concerns.

Though the given involvement and collaboration of the involved, questions of representation and power structures cannot be overcome completely. This area of tension characterises the work in a fundamental way, but there are better and worse ways of collaborating. For instance, the methodological concept of the theorist and filmmaker Trinh T. Minh-ha to "speak near by" and not to "speak about" mirrors an alternative of involving protagonists with their own ideas and wishes of self-representation in the (filmic) process. [12] It has risen out of the postmodern, feminist, postcolonial debates on the "crisis of representation" in anthropology, the aim being to analyse and deconstruct limiting paradigms. [13]



Fig. 5. Filming of underwater construction site at Auhafen Basel/Switzerland, 2011, RhyCycling team, set photography, ©RhyCycling team.

Regarding recent theoretical and methodological approaches like those of Karen Barad, who engages “constructively and deconstructively (not destructively) with science,” deconstruction is “about examining the foundations of certain concepts and ideas, seeing how contingency operates to ensure the ‘foundations’ of concepts we cannot live without and using that contingency to open up other possible meanings/ matterings.” [14] Thus Trinh’s methodological approaches point toward the situation where those involved have to deal with concepts (of representation and power structures) but try to do it in a different, more adequate and empowering way.



Fig. 6. Editing the filmic discussion with the professional diver and business owner Serge Stephany, 2011, RhyCycling team, video still, ©RhyCycling team.

INTERACTIVE FORMAT

Why choose an interactive format of presentation and not a linear film format? We were looking for a format that could represent the heterogeneous research context as well as one that relies on the debates in science studies about processes of cognition and knowledge creation. Therefore, the edited research material was brought together in an interactive computer platform with a complex search structure that visualised the interdependencies

of content, places and keywords: The icons, keywords and location markers are related to each other. When the user clicks on a keyword, location or icon, they get a sample (or a ‘cloud’) with all the material belonging to it. The magenta references on the interface are a visual orientation aid.



Fig. 7. Interface of the interactive computer platform: Icons (A), keywords (B) and locations (C) are interrelated, 2012, RhyCycling team, screenshot, ©RhyCycling team.

MONTAGE AS PROCESS OF KNOWLEDGE CREATION

The subversive potential of montage lies in its capacity for altering the obvious first sense of an object, image or perspective by combining two or more elements. [...] Montage is the splintering of pre-established orders of visibility, but it is also the reassembling; and beyond these assemblages, new order may appear. [15]

The interactive computer platform assembles and arranges all the media products emerging from the research process, i.e., videos, sound essays, quotations and graphics. The users surf single-handedly through the materials and thereby create their own ‘dramaturgy.’

The aim is to let the visitor click through the material in a certain self-determined way: The media were organised in a predetermined way, according to certain keywords (invasive, toxic, etc.) and to locations along the Rhine, but the way people chose to surf through the material, creating their own dramaturgy, their own ‘story-lines,’ was self-determined. This approach is more ‘playful’ as opposed to a ‘classical’ structured one. There were no guided tours or the like. The viewer experienced different degrees of control over the interactive situation. In that sense the visitors were collaborating with the material.

The users’ interaction with the material as a form of knowledge creation is comparable with processes of montage, which were also fundamental to the interactive computer platform of *RhyCycling*. The platform offers the possibility to constantly arrange and juxtapose the content anew, as per the quotation mentioned above. The concept of montage suits well, both in its narrow [16] as well as in its more open characteristics. [17] Besides the concrete editing of the audio/visual material (as reflective practice), montage

symbolizes the reflections of the research team and its attitude toward aspects of topics through an unusual, possibly even irritating relationality of materials on the platform. For example, the keyword 'migrate' does not focus on people, but on routes of fishes and waste; debates on fish ladders or rhetoric about 'invasive species' reaching Basel via the waterway and mirrors the discourse from the populist right on migration. I call this reflective practice "a superior form of editing." [18]

Similar artistic practices were discussed at the ISEA2014 panel *Art in the Age of Networks* led by Cornelia Sollfrank: Felix Stalder mentioned 'meta orders' as platforms or archives containing different (online) material with the possibility to create multiple meanings – not only by the artists/authors but by the viewers as well. *RhyCycling's* montage points to this as well, because users can create their own entanglements of the media contents through the non-linear form of reception. In a broader sense, montage refers not specifically "to an audio/visual or (by extension) a textual method, but to a sensibility and mode of engagement with the world." [19] This reference is not directed toward an already known order (of society, history, contexts), but rather on an instability created through montage. However, this instability that is inherent in juxtaposed elements and the forming of "gaps" links both, while distinguishing them from each other at the same time. [20] These gaps demand imaginative effort from viewers during reception and support miscellaneous points of view. It's about the "destabilization of conclusion in order to enrich it." [21]



Fig. 8. Exhibition view of *RhyCycling – Fluid Borderland*, interactive computer platform with projection and monitor mode, 2012, Ketty Bertossi, photography, ©Ketty Bertossi.

In an evaluation of the exhibition, interviewed visitors describe that some time is needed for reception in order to make the connections between the materials. This concentration and rearrangement is described as the "environment" in which one is located and where the contents are composed rather "unconsciously" – with the effect that after the reception one has "a kind of a 'loaded' head but in a good sense." Therefore, further development of the content is created actively by the users, who 'arrange' the knowledge on the platform they came upon and bring it into their own unique order.

In doing so, their own intention or question determines their experience with the platform. The 'storyline' they have created is a new arrangement of knowledge in the users' minds. This may lead to a self-reflective moment about their own lifestyles in relation to the topics of the material being viewed. The transformative nature of this advanced form of reception relates figuratively to both the viewer and the perceived contents. Transformation happens through the active involvement. The potential of this unstable intermediate space that emerges from montage is a rethinking of one's own behaviour – to a certain extent a 'negotiating' with oneself. It has an expanding, opening, touching effect. The 'loaded' head, the dizziness as a symbol for the experienced intensity may finally motivate action, to change something. Interactivity might support such a transformation process.



Fig. 9. Deep involvement at the interactive computer platform in monitor mode, 2012, Ketty Bertossi, photography, ©Ketty Bertossi.

CONCLUDING REMARKS

Inter- and transdisciplinary teams are working increasingly with 'open' research concepts. They focus on how, where and with whom knowledge is produced by trying to involve academic and non-academic experts in the process of knowledge production. How the presentation format influences the reception and, respectively, how the interplay between the medium and the knowledge formation appear with regard to *RhyCycling* has been described for the team, partners, protagonists and the public. As mentioned above, knowledge transformation and circulation that occurs in a continuous fashion and in various forms and formats is a knowledge creation process that is 'endless' and rather unstable. While the circumstances of instability are quite creative; they are highly demanding on the viewer in terms of imagination.

Regarding *RhyCycling*, the open dramaturgy allows the users to approach the contents by themselves. The emerging 'storyline' is an arrangement of new knowledge in their minds, creating 'multiple versions' of the perceived border area – which occurs on the foundations of multiple modes of knowledge creation. The transformative nature of this advanced form of reception has an effect on the received contents as well as the viewers themselves: transformation occurs through active involvement. In the best case, the activity leads to self-reflective moments in relation to the topics of the material being viewed. The circumstances of

reception and perception described above depend on 'agency' as well. To place it within the broader concept of agency as "response-ability," as an "enactment," agency is "about possibilities for wordly re-configurings." [22] Hence, the montage-driven possibilities provided by the interactive format of the platform offer support for reconsidering one's own lifestyle in a playful way.

For further information see:

www.rhycycling.ixdm.ch

www.rhycycling-online.idk.ch (interactive computer platform)

<http://explore-rhycycling.idk.ch> (material demonstrator)

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