Jens HAUSER

Medical Museion/University of Copenhagen

FRUITFUL MISUNDERSTANDINGS: ARTISTIC RESEARCH IN ART/SCIENCE WITHIN THE EPISTEMOLOGICAL TURN

The current trend of an increased mutual interest between the arts and the techno-sciences can be addressed as an "epistemological turn"– it not only results in the production of new forms and narratives, but unfolds in poetic and critical ways of alternative knowledge production, especially including hands-on practices with shared media, materials, and matters. Weary of the gilded cage of metaphor and representation, symbolic intervention, formalistic evocations, or critique at a safe distance, such techno-science related artistic strategies call for an analysis that is not based primarily on imagery but on material media and epistemic connections, meanwhile the techno-sciences themselves have become powerful producers of aestheticized images today. Phenomena that once assumed the form of artistic images are being translated, scattered, and fragmented into a variety of instances of mediality—they are not only means to an end but fully integrated elements of the aesthetic object. However, these encounters and entanglements should not be seen as a new paradise of interdisciplinarity; they rather continuously provoke misunderstandings—however fruitful both for the actors engaged in such relationships,

and for outside observers. And what if the greatest misunderstanding would be the mantra-like claimed art/science binary itself?

World wide, art/science programs, residencies, funding schemes and institutional initiatives spring up like mushrooms, giving raise to research activities branded as *artistic research* or *arts-based research*. However, the focus is often placed on the different finalities and methodologies of understanding, researching and communicating, while the two distinct fields are, indeed, equally affected and inextricably linked precisely through the technological media and apparatuses of our time—a fact that clichés inherent in this binary tend to obscure. Of course, despite the pervasive trend of interdisciplinary encounters enabled by the broad field of art seen as a pluripotent catalyser, stereotypic misunderstandings persist here and there. We may still find, on the one hand, researchers in the natural sciences who apprehend collaborations with an artist in terms of "beauty," "creativity" or "genius." Others, driven by a clear utilitarian mindset, would expect an artist to assist them in visualizing their findings to communicate in a more convincing way to their community. On

the other hand, there may also still be artists who, when crossing the threshold of a scientific laboratory, will perceive an army of technicians potentially at their service, inclined to materialize their preconceived ideas. Such misunderstandings will rarely be fruitful.

"Fruitful misunderstandings" within the framework of an "epistemological turn," on the contrary, should turn participants' different expectations, asymmetric relationships and institutional constraints into productive tension, by overcoming binary thinking inherited from the two cultures debate initiated by Charles Percy Snow[1] as the most prominent point of reference since the1960s, and not waiting for sociological miracles for a much desired "third culture"[2] suddenly to happen. Some fundamental questions need to be raised: Why is it that only the natural sciences are still considered the only "true sciences"? Why does the very notion of the "humanities" not include the status of science as claimed in the German term of *Geisteswissenschaften* coined by Wilhelm Dilthey[3] with the intention to consider research in the humanities to have equal value than in the natural sciences. Dilthey's goal was to establish *Geisteswissenschaften*'s proper methodological foundation, distinct from, but equally 'scientific' as the so-called natural sciences which he considered being reduced to positivist cause and effect logics, and neglecting the complex relationships at stake with regards to human "understanding." To go even further: Why are the arts, then, so often associated primarily with the humanities, and not with engineering, while especially in the media arts many practitioners today have a background or a focused interest in the natural sciences, and highly specialized expertise in the most diverse technologies? How can one see the arts then, still today, as natural science's "natural other"? At the same time, natural scientists often aim at clearly distinguishing themselves from engineers, in a way comparable to artists distinguishing themselves from designers. Artists and scientists generally converge in their desire to reflect on *how they know what they know*, instead of straightforward utilitarianism with regards to the subsequent tools they use. Since the inquiry into

how knowledge and cultural production itself operates—the aforementioned "epistemological turn"—it is worth to refer to philosopher of sciences Hans-Jörg Rheinberger's concept of "epistemic things"[4] coined to describe not only the tools and agencies used in scientific research, e.g. model organisms and technical apparatuses, but also the special social dynamics of research processes, in line with the work of anthropologists, sociologists and historians of science, such as Bruno Latour[5] and Donna Haraway.[6] While the techno-sciences have become powerful producers of aestheticized images, art is no longer merely concerned with the aesthetic transposition of knowledge, but with knowing and feeling of *how knowledge is being produced*. In this sense, the very notion and finality of the term "research" needs to be questioned as well, and framed in a two-fold way when conducting *artistic research* or *arts-based research*, taking into account art's inherent feature of *criticality*: One can either do research to find a solution or an answer to a problem or analytic question, or do research with the aim to generate new questions.

Historians of science interested in the interdisciplinary potential of the arts flag up the urgency of a "practical turn" which, according to Hans-Jörg Rheinberger, should emphasize the very making and the material means of research in the debates concerning an adequate notion of science and "disclose even the natural sciences and scientific knowledge of nature itself as cultural phenomena in their historical specificity and, insofar, to pull them over to the side on which the humanities have always found themselves"[7] – whereby not only the sociology of science and philosophy of technology are meant here. In particular, it is the contemporary network of experimental systems, e.g. with the requisite technical arrangement of model organisms, that must be examined self-reflexively as "the genuine working units of contemporary research" beyond merely results and insights. For in them "the scientific objects and the technical conditions of their production are inextricably interconnected. They are, inseparably and at one and the same time, local, individual, social, institutional, technical, instrumental, and, above all, epistemic

units. Experimental systems are thus impure, hybrid settings. It is in these "dynamic bodies" that experimenters shape and reshape their epistemic things."[8] In this context, the supposedly untouchable art/science binary turns out to be a misunderstanding as such, since an increasing number of artists ground their practice precisely at this threshold.

However, the assumption that artists or curators approaching researchers in the natural sciences are first and foremost interested in aesthetic images is still widespread even in educational environments with established art/science programs. An anecdote from Michigan State University, where I co-direct the trans-disciplinary artist-in-residence program BRIDGE[9] together with artist and researcher Adam Brown, may be indicative of such unconscious logics at work. While contacting the biochemistry and molecular biology lab on campus in order to promote the idea of artists physically engaging hands-on with the available tools and media, a dear colleague running the plant research laboratory got straight to the point: "Oh, since you're interested in art: I have some nice spectroscopic images from my photosynthesis research, and beautiful time-lapse movies from our chloroplasts as well…" It took me some time to explain that the purpose of my visit was less to contemplate these colourful and spectacular images than to borrow a number of the portable spectrometers the MSU lab has developed to conduct field studies allowing real-time analysis of photosynthetic and protective metabolisms in plants—for art projects. "Oh, you really plan to work with artists hands-on with our devices?" The inquiry into opportunities for artistic research using the lab's inexpensive MultispeQ hand-held devices[10] able to measure plant, soil, water, and environmental parameters and to easily view, map, analyze and share collaborative research data was motivated by a research agenda that feminist philosopher of sciences Donna Haraway has described as "situated knowledge"— a stance that inspires many artists. Since in the sciences the focus has for long shifted from *visibility* to *measurability*, and art still counts on its traditional competence

to produce powerful images, the idea was to encourage cultural practitioners to explore the manifold possibilities of measuring "greenness"[11] with regards to ecology and climate related modelling while insisting on the political and epistemological aspects not only of *what* we measure but *how* and *from where* we measure. Technical devices and color-code conventions are neither naturally given nor neutral or objective, while the mediality of green plays a central role in climate-related measurements, modeling and visualizations. On the one hand, the abstract remote measurements of the satellite-based Normalized Difference Vegetation index (NDVI) scrutinize large pixels of more or less uniform greenery to map carbon exchange crucial to assess impacts of CO_2 sequestration strategies. Here, vegetation is considered monotonous greenery and quantifiable CO_2 neutralizers while qualitatively neglecting biodiversity. On the other hand, hand-held devices such as the MultispeQ may encourage the collection of ground-based data and focus on qualitatively relevant parameters of biodiversity, not on abstract greenness indexes, corresponding to Haraway's critique of tools that claim mechanical objectivity:

> Vision requires instruments of vision; an optics is a politics of positioning. Instruments of vision mediate standpoints. (…) Positioning is, therefore, the key practice in grounding knowledge organized around the imagery of vision (…) Situated knowledges are about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular. The science question in feminism is about objectivity as positioned rationality.[12]

More and more initiatives that boost interdisciplinary artistic research embed such attitudes of situated knowledge and "hands-on" practice, such as demonstrated as well by the results of MSU's BRIDGE artists-in-residency program and its final exhibition *MATTER(S) matter(s): Bridging Research in the Arts and Sciences* at the Eli and Edythe Broad Museum.[13]

With their shared interests in materiality and topical issues—the dual "matters" invoked in the exhibition title—artists and natural scientists addressed the deceivingly seamless influence of the techno-sciences which increasingly determine, physically and mentally, the world today — addressed by theoreticians such as Helga Nowotny as the "scientification of society"[14] — while their pervasive entanglement with their technological tools and sociopolitical contexts are often overlooked.

In a similar way, the Max Planck Institute's recent initiative KLAS[15] — Knowledge Links through Art and Science — has been investigating the mutual benefits of art-science collaborations related to the vast research field of Synthetic Biology and its public perception and understanding. In order to justify its utility or usefulness, KLAS conducted extensive interviews about the participants' personal experiences in relation to their conceptual and methodological exchange.[16] Some typical patterns indicative of asymmetric expectations appear in these interviews as well. Questions articulated by biologists include "What I can learn from artists? To be designers. They could help design our microfluidics channels," and express affirmed utilitarian desires with regards to the tools of research themselves. Other natural scientists hope to benefit from artists' communication skills with regards to "public engagement: if the artists can help with our work, that would be useful;" "I have learned to better explain my work to people outside my field." Some cultural practitioners, for their part, think that "artists can certainly contribute for the advancement of science, a field that requires both imagination and creativity." Interestingly, after a while these interviews reveal aspects that show an enhanced willingness to engage in critical self-reflection on both sides. Influenced by the artists' presence, a biologist addresses the epistemological blind spots as follows:

> One of the biggest temptations facing scientists today is the use of high-end technology instead of reason. (...) If we are given a "technological" solve we would rather just throw everything in a machine and see what comes back. A lot of artists have noticed this back and forth with technology, while a new technology can help us see something differently, it can also obscure or distract from the original intention.

This last aspect points precisely to a potential benefit that the arts can provide for the natural sciences highlighted by Hans-Jörg Rheinberger, namely to work against natural science's sometimes uncritical use of metaphors and "media blindness:"

> There is a general tendency on the part of scientists to blend out the epistemic dimension of their work: the ever-changing means and media. (...) They tend to look through them, (...) to view them as allowing (...) immediate access to the "findings."[17]

Should all natural science labs then have an artist in residency? It is worth asking whether art/science interactions, which often are framed at an institutional level, can be abstracted from the constraints inherent in the respective individual or collective frameworks. Idealists may hope for new Leonardos[18] and Frank Malinas[19] to emerge, but such hybrid figures acknowledged for both sides of their expertise remain extremely marginal. While some art academies, like the French Le Fresnoy, have started to offer residencies for scientific researchers[20] as well, the contrary case of the artist in residency in a natural science context largely prevails. Here, a sort of homogeneity is often misleadingly assumed with regards to what happens when a cultural practitioner crosses the threshold of a "laboratory" — which regularly creates fruitful misunderstandings and friction. Oron Catts, artist and co-founder of SymbioticA, the internationally known laboratory at the University of Western Australia where artists can acquire scientific methods, has criticized the vagueness of the term and described very different roles an artist might take on when entering a life science lab:

1) the illustrator, 2) the commentator/
representer, 3) the visitor/guest/onlooker,
4) the appropriator, 5) the entertainer, 6)
the user, 7) the industry worker, 8) the
hoaxer, 9) the hobbyist/amateur, 10) the
after-hours/under-the-table, 11) the mail-
order/ready-made, 12) the researcher/
embedded in science/technology setting.[21]

In addition, artists in labs may be tempted
to creatively turn their dealing with, or struggling
against their hosts into an attitude known in
the context of art as the genre of "institutional
critique," and conducting their own laboratory
studies in a resolutely post-Latour-ian way.
However, a trend can be witnessed that artists in
scientific contexts increasingly try to go beyond
visualization, sonification, data translation,
and text-based narration. In this regard there
is a helpful distinction made by German media
philosopher Dieter Mersch[22] who argues that we
are living in a culture where text-based *discourses*
are generally articulating claims of *truthfulness*,
while *images* are widely responsible for the
production of *evidence*, in a fruitful division of
labour. But instead of corresponding to traditional
genres of artistic expression, here, *visuality* and
discursiveness just become part of the hybrid
"epistemic objects" generated by experimental
systems, including the social structures of the lab,
the material arrangements of model organisms,
instruments, the contemporary technologies
and media shared by the arts and the sciences.
After the paradigm shifts brought about by the
linguistic, *performative and pictorial turns*,
an *epistemological turn* emerges: Art here is
no longer merely concerned with the aesthetic
transposition of knowledge, but with knowing,
analyzing, processing and transmission of how
knowledge is produced.

Notes

[1] 'The Two Cultures' was an influential lecture held in 1959 by Charles Percy Snow. Snow's main thesis was that Western society was irreconcilably split into two cultures — the natural sciences and the humanities.

[2] John Brockman, *The Third Culture: Beyond the Scientific Revolution* (New York: Simon & Schuster, 1995).

[3] Wilhelm Dilthey (1833-1911) was a German philosopher known for his distinction between the natural and human sciences, claiming that the main task of the natural sciences is to provide causal explanations, while the core task of the human sciences is the understanding of the organizational structures of human and historical life.

[4] Hans-Jörg Rheinberger, *Toward a History of Epistemic Things. Synthesizing Proteins in the Test Tube* (Stanford: Stanford University Press, 1997).

[5] Bruno Latour and Steve Woolgar were among the first anthropologists and sociologists to study the daily work processes of empirical researchers at a scientific laboratory. Their book *Laboratory Life. The Social Construction of Scientific Facts* was published by Princeton University Press in 1979.

[6] Donna Haraway's theoretical work on technoscience addresses traditional scientific practices in a critical way.

[7] Hans-Jörg Rheinberger, *Natur und Kultur im Spiegel des Wissens* (Heidelberg:Universitätsverlag, 2015), 34.

[8] Rheinberger, *Toward a History of Epistemic Things*, 2-3.

[9] http://bridge.art.msu.edu.

[10] https://photosynq.org.

[11] Jens Hauser, "Greenness: Sketching the Limits of a Normative Fetish," in Natasha Lushetich, ed., *The Aesthetics of Necropolitics* (London: Rowman and Littlefield, 2018), 97-118.

[12] Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", *Feminist Studies* 14 (3)(1988):586, 590.

[13] The *MATTER(S) matter(s) exhibition from October 27th 2018 to March 3rd 2019* was co-curated by Jens Hauser and Steven L. Bridges. Featured artists included Art Orienté Objet (Marion Laval-Jeantet & Benoît Mangin), Evelina Domnitch & Dmitry Gelfand, Tagny Duff, HeHe (Helen Evans & Heiko Hansen), Zbigniew Oksiuta, Kuai Shen, Stelarc, and Sissel Tolaas.

[14] Helga Nowotny, Peter B. Scott and Michael T.Gibbons, *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty* (Cambridge: Polity Press, 2001).

[15] https://klas.mpikg.mpg.de/aims/.

[16] https://klas.mpikg.mpg.de/wp-content/uploads/2018/10/KLAS-WS-Booklet_Otavio.pdf.

[17] Hans-Jörg Rheinberger, "Risking Reason: The Productive Tension of Art and Science the Work of Paul Vanouse," in Jens Hauser, ed.,*Paul Vanouse - Fingerprints...: Index - Imprint - Trace*(Berlin: Argobooks, 2011), 95.

[18] It is impossible to establish an exact number of publications or programs evoking Leonardo da Vinci (1452-1519), the Italian polymath of the Renaissance, in order to idealize the reconciliation of artistic and scientific creativity.

[19] Frank Malina (1912-1981) was an American aeronautical engineer and painter, especially known for being a pioneer in both the art world and the realm of scientific engineering.

[20] https://www.lefresnoy.net/en/school/research-and-production-residency.

[21] Oron Catts, "Contribution to an online-symposium", in Suzanne Anker and J.D. Talasek eds., *Visual Culture and Bioscience. An Online Symposium* (Baltimore: University of Maryland, 2008),120-121.

[22] Dieter Mersch, "VisuelleArgumente: Zur Rolle der Bilder in den Naturwissenschaften," in: Sabine Maasen,Torsten Mayerhauser and Cornelia Renggli, eds.,*Bilder als Diskurse – Bilddiskurse* (Weilerswist: Velbrück, 2006), 96-97.

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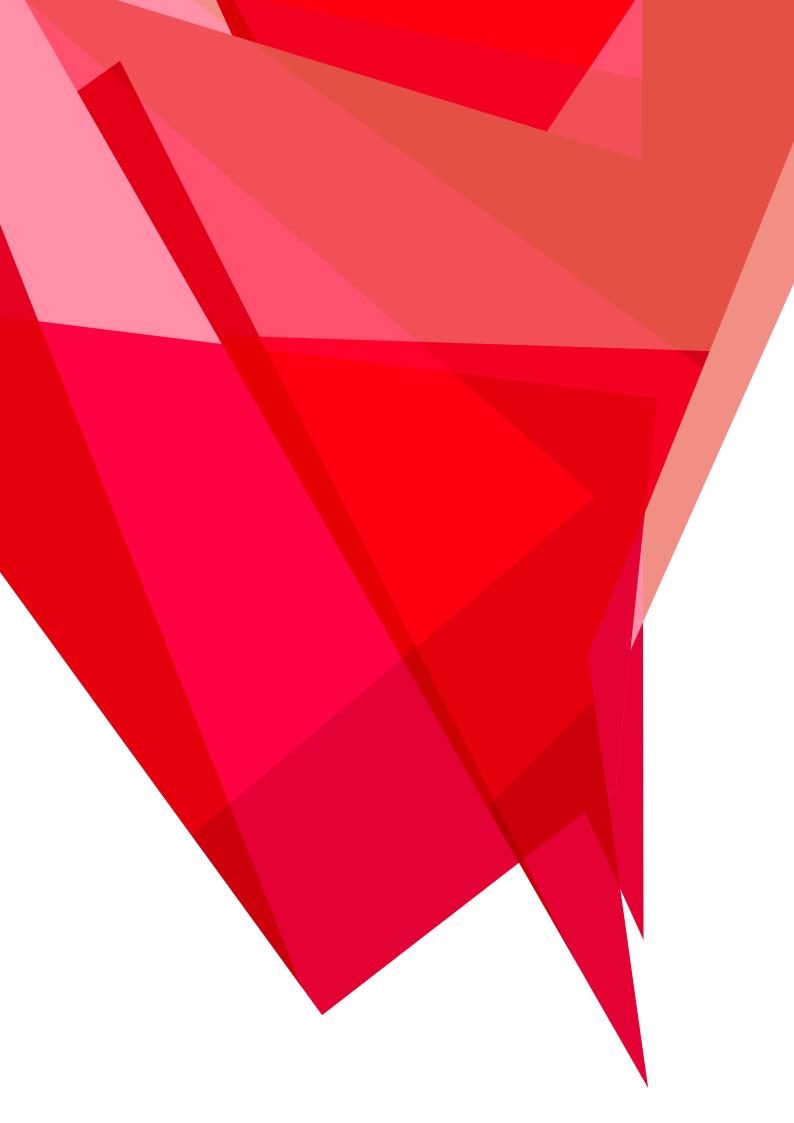
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https://klas.mpikg.mpg.de/wp-content/uploads/2018/10/KLAS-WS-Booklet_Otavio.pdf.

https://www.lefresnoy.net/en/school/research-and-production-residency.

Nina CZEGLEDY

CONTEMPORARY ART PRACTICE: AN EXPLORATION OF ALTERNATIVE STRATEGIES

In the last decade, nearly every phase of art practice including production and dissemination has been changing or has already changed. Numerous conferences and publications have been focused on this theme, this presentation is based mostly on personal observations gained via independent curatorial practice. According to my experience the changing paradigms include:
- Research in the arts
- Interdisciplinary collaborations
- Art production including hybrid projects
- Changing curatorial roles
- The impact of digital technologies:
  Altered presentation and dissemination modes

Research in the arts

A couple decades ago, the term "research" indicated investigations mostly limited to the field of bioscience, engineering or economics. There were very few exceptions. Lately, these long established presumptions have been challenged and it has been recognized that research has significant implications for art, design and by extension for culture. Today, research forms an integral recognized part of contemporary art practice particularly involving interdisciplinary collaborations. According to Shaun McNiff, art-based research can be defined as "the systematic use of the artistic process, the actual making of artistic expressions in all of the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people that they involve in their studies."[1]

As Janinka Greenwood noted: "The use of arts-based approaches to research… has grown from the desire of researchers to elicit, process and share understandings and experiences that are not readily or fully accessed through more traditional fieldwork approaches."[2] Graeme Sullivan, in his book *Art Practice as Research: Inquiry in the Visual Arts*, provided a powerful argument that the creative and cultural inquiry undertaken by artists is a form of research. Sullivan argues that legitimate research goals can be achieved by choosing different methods than those offered by the social sciences. The common denominator in both approaches is the attention given to rigor and systematic inquiry.[3]

Interdisciplinary collaborations

A growing number of interdisciplinary collaborations are apparent between art and science but especially between art and technology, mostly due to the impact of digital technologies. Quoting Earnshaw et al: "Collaboration in art, design and media has traditionally taken place in the studio. Recent experiments in collaboration and interaction have sought to identify the factors that promote productive and creative collaboration and those that do not."[4] Extensive literature is available on the various concepts as well as the practice of interdisciplinary collaborations. As Piibe Piirma noted: "Art and science collaboration and various hybrid research practices have become common vocabulary of the 21st century. The intertwining of different fields and paradigm change that involves scientific innovation, new technologies and historical/cultural traditions are reflected in many of the works of art that expand our imagination and provoke several questions that are important today."[5]

Collaborative Art production including hybrid projects

Today cross-disciplinary teams connect from remote locations and collaborate in hybrid environments. Within the process of these collaborations, some questions emerge, but many of these questions remain unanswered:
- How do you define the most important element of collaboration?
- What are the obstacles?
- Are there any rules?
- Is there an applicable methodology?
- How can we define the underlying artistic, social and political motivations?
- How do we approach cultural differences?
- How can technological requirements and access be best addressed in the process?
- How do the politics of spatial practices influence (remote) collaborative projects?
- How do we involve our audiences?

While extensive flexibility, modularity and mutually satisfying professional and personal relationships seem to contribute to the ultimate success of the collaborative process, many of the above points remain unresolved. My practice is based on interdisciplinary collaborations. I find that trust and respect for inter-cultural contexts are the most useful means towards a successful collaboration.

At the same time as we witness the growth of digital and data art, the wide variety of materials and instruments used today also include low-tech tools such as the glow sticks that South African artist, Marcus Neustetter, employs as a medium for storytelling. *Light Experiments: A Night beneath the Stars* created with event participants "using glow sticks, laser pointers, and strung lights"[6] is an excellent example.

Eco art forms a new ever expanding element in today's cross-disciplinary art scene. Urban beehive projects by artists have been growing worldwide. In the centre of Brussels, the Urban Bee Laboratory operates with real time on-line video streaming, real time audio acquisition and processing from 12 microphones, pre-amps, soundcard, amplifier and speakers.[7]

Many art projects today– and I have been involved in some - utilize on-line real time data and are expressed in a great variety of forms. *The Galactic Wind* installation for example transforms cosmic ray data into water drops and sound. The scientific source for the installation is based on Cosmic Ray data from the Cosmic Ray Station at Oulu University / Sodankyla Geophysical Observatory in Finland. Our interdisciplinary team exhibited *Galactic Wind* in Puke Ariki Museum, New Zealand in 2013.[8] At this point in time it is difficult to tell how the immense range of new formats will be viewed in the future.

Changing curatorial roles

The role of the curator has evolved, expanded in unexpected and radically different ways beyond previously un-imagined settings and conditions. In addition to the rise of new collaborative models, and on-line exhibition opportunities such as YouTube or Second Life, curatorial selections, dissemination and audience reception, have shifted considerably. The current emphasis is often on a process rather than on objects. According to Benny Wed "In the white cube, the role of the curator functions as intermediary between the art works and the public."[9] Corina Oprea, in her doctoral thesis *The End of The Curator: On Curatorial Acts as Collective Production of Knowledge*, explores the convoluted liaison between knowledge production, collective work and curating, through practices that have been neglected by mainstream curatorial platforms and art history.[10]

"There has been a lot of chatter in recent years about the »death of the curator.« But is the role of the curator really dead, or is it just evolving?" - asked Erinn Roos-Brown in his *Arts Forward* blog in May 2015. According to Roos-Brown, today the role of curating is focused on audience engagement and collaboration rather than specialized knowledge.[11] Could the altered curatorial practice validate Ellen Gamerman's declaration in *The Wall Street Journal* that "Everybody's an Art Curator"?[12] As a proof of Gamerman's proclamation, amid the "evolving" curatorial strategies crowd curating - a relatively recent phenomenon - seems to have gained rapid popularity in major museums. The *Click* photo exhibition in 2008 by the Brooklyn Museum presented an early benchmark of this approach.[13] Over the Web the on-line community evaluated and judged the initial submissions for *Click* with the resulting exhibition in 2008. A more recent example (October 2014–January 2015) was the *#SocialMedium* show, a "hypercontemporary exhibition" of 40 paintings chosen by public vote at the Frye Museum in Seattle.[14]

The traditional point of view is that the artist and the curator inhabit very different roles. Although this is the case in many situations, my own work and that of many of my collaborators aim to break down this sharp demarcation and propose a model of cultural production that recognizes the shared ground of "certain types" of artists and curators by seeking common-ground. In my opinion we find that these days more and more time is spent as a mediator. Accordingly, the curator today is considered:
- As a champion of objects and/or interactivity,
- As a producer,
- As a collaborator,
- As a hacker,
- As a broadcaster,
- As a context provider,
- As a communicator,
- Or as an outsourcer and many more....

The impact of digital technologies: Altered presentation and dissemination modes

The impact of new technologies is one of the most dominant influences in the changing scene of art production, presentation and dissemination. Think about wearables; a terrific example of the impact of rapidly developing technologies is the work of Anouk Wipprecht who presents "a rare combination of fashion design combined with engineering, robotics, science and interaction/user experience design to make fashion an experience that transcends mere appearances."[15]

As Alice Vincent noted: "just as the internet is capable of finding hackneyed or comically ugly art, its ubiquity in everyday life has affected the art world in ways some are comparing to the way photography changed 20th century painting." Quoting Gregor Muir, Director of the Institute of Contemporary Art in London, Vincent wrote: "Today, most young artists are finding inspiration online, making Google as significant a technology as the camera was for the last century: Francis Bacon took images from newspapers and medical textbooks. Now artists like Parker Ito trawl the Internet for imagery. That's an immediate difference."[16] Digital technologies - quoting Mohamed Zaher - "have expanded horizons

of creativity and opened new artistic frontiers. However the broad array of options now available to artists through new technologies may sometimes have a dangerously negative effect precisely because they offer the artists means of expression they never imagined were possible."[17]

The Pew Research Center's survey about the impact of digital technologies on the arts confirmed the major role of the Internet in broadening the boundaries of what is considered art. The survey results also corroborated the well-recognized premise "that the internet and social media have »increased engagement« and made art a more participatory experience, and that they have helped make »arts audiences more diverse«."[18]

people can express themselves through movement or discussion are becoming very popular.

Nevertheless once again we have questions. How is consciousness (of the participant/viewer) addressed in interactive artworks? Surprisingly few artists examine in depth the social relations of the viewer with art objects. This is an intriguing point, as current technological advances clearly enable the search for enhanced communication between the artwork and the audience, providing a variety of options for an effective exploration of the state of consciousness within the interactive loop.

In conclusion - hopefully a bird's eye view can be gained through the examples based on personal experience of the changing strategies and possibilities in contemporary art practice.

Altered presentation and dissemination modes

Another major change in the art production exhibition process is the mode of presentation. In the last few decades, the notion of exhibition sites have changed substantially. The shifting boundaries between public space and personal space have created an additional aspect of audience interactions. Today more and more artists consider moving out of the white box of museums and galleries – to public venues, streets, waterways and of course the Internet. Art presentation, like other artistic expression, has become more experimental, more conceptual; more varied and more personal noted Armand Lee in his article entitled "Art Presentation – When Walls Have Meaning."[19]

The major shifts in showcases have led to a greater range, and an entirely different type of, venues and audience interaction. The variety of these on-site and on-line expressions is so vast that it is beyond the framework of this text and requires further discussion. In my practice I explored some of the presentation/audience issues through organizing informal participatory curatorial discussions and walking symposiums often as part of international festivals and conferences. These participatory events where

Notes

[1] Shaun McNiff, *Art-based research,* 2007, https://citeseerx.ist.psu.edu/viewdoc/ download?doi=10.1.1.738.4618&rep=rep1&type=pdf.
See also: Shaun McNiff, *Art-based research* (London and Philadelphia: Jessica Kingsley Publishers, 1998); Shaun McNiff, "Arts-based research," in J. Gary Knowles and Andra L. Cole, eds., *Handbook of the arts in qualitative research: perspective, methodologies, example and issues*, 83–92. Thousand Oaks, CA: Sage Publications, 2007.

[2] Janinka Greenwood, "Arts-Based Research: Weaving Magic and Meaning," *International Journal of Education & the Arts*, 13 (Interlude 1) (2012). Retrieved [Feb 17 2021] from http://www.ijea.org/v13i1/.
(PDF) https://www.researchgate.net/publication/279371991_Arts-based_research_Weaving_magic_and_meaning.

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Karin M. HOFER

AVANT-GARDES AND THE CHANGING IMAGE OF THE INNOVATIVE SUBJECT

Concerning Contemporary

The euphoria of the Velvet Revolution and Millennium-excitement have been behind us for quite a while, now. It is time to ask ourselves where we stand. Starting at the beginning of history, it might be helpful to see its development structures, as Ernst Cassirer's model of *Symbolic Forms*[1] describes them: out of a basic mythic consciousness, (religious) belief emerges nearly together with art. So they are very closely connected. Rationality has its foundation on them.

So we can understand that the common belief of an age (religious and/or secular) is implicitly expressed by its art, but perhaps also by the self-image and habitus of artists. So the Modern period (between the French and Velvet Revolution) was dominated by a belief in a rational one-way progress, and avant-gardes have been the adequate form for agitative behavior to put innovations through. Nevertheless, the strength of this belief that first increased, and finally decreased (with a maximum in the first half of the twentieth century) modified the appearance of advanced movements and their proponents.

Today our belief has turned in the direction of pluralism as way of salvation and therefore there is no need for avant-garde fights, because we have at the same time a multiple-choice between different equivalent truths.

In days of pluralism, the art-recipient is explored: first by the humanities, for example art-historians like Horst Bredekamp analyse the aesthetic inter-action (*Bildakt*). Then he became a proband for scientific experiments of Neuroaesthetics. What was around 1900 called *Einfühlung* (empathy) by Theodor Lipps, Wilhelm Worringer for example, now becomes credible by the discovery of mirror neurons. On the other hand different imaging procedures and improved analysis methods made it possible to understand the brain-activities involved in innovation and creativity much better. But of course, they can explain only very fundamental facts. So advanced art will escape at any case the rules of statistics always by transcending the given rules.

To understand the meaning of contemporary art, it may be useful to look upon the evolutionary development of the *phenotype* of the innovative subject (and its avantgardistic context) here as short overview in the timeline from late Baroque until now in five steps.

The Innovative Subject

Looking back the approximately 200 years of the Modern period, what can be said about the innovative subject that kept it going? A person like this is never satisfied with traditions or *status quo*, she or he is always trying to change it to something better and to reach this aims it will use different strategies like, subversion, or open fight, which possibly leads to artistic revolutions.

Progress in art was already narrated by Duris of Samos.[2] Vasari collected stories of *Artists of the Renaissance* and seeing a certain development, put them in a row chronologically. At the beginning of the twentieth century the two art historians and psychologists Ernst Kris and Otto Kurz[3] compared these narrations and found correspondent patterns to each other and to the hagiographies of saints, which underlined that innovative artists adopted the roles of prophets, martyrs and fools at the same time in a secular society.

During the turning phase to a secular and civil society, Immanuel Kant (as an important transformer) defined the *genius* as the most excellent subject of this society. It has internalized culture so deep, that it changed to a kind of sublime nature, where cause and purpose require each other in a circular and auto poetic way. A condition, initiating a habitus of outstanding liberation.

Jean-Jacques Rousseau had thought about art, genius and society and in 1750 gave a less idealistic estimation[4] of the situation:

> Each artist wishes to be praised. What will he do if he was unlucky enough to be born in a century, when modern critics of a decadent generation give young people the possibility to be successful? (…) What will he do, messieurs? He will adapt his talents to the low level of his times and produce pleasing objects, who are admired more at his lifetime, than great works who will be appreciated long time after his death. (…) If there should be a genius nowadays, who had the strong will, not to compromise at all with his era, and would refuse to make infantile nothings, than woe to him! He will die unknown and in misery.
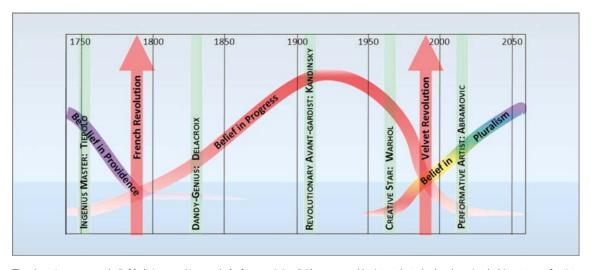
Reading these words today, the question arises whether the most innovative artist of the modern period are really still unknown, and wait to be discovered? For instance by a branch of art history about the submerged futures.

En Garde, Avant-Garde!

Philosopher Peter Sloterdijk described avant-gardes as an irritating challenge for every society: "Avant-gardism is the competence, to force all the members of a society to make decision upon a proposal they did not make."[5] From this aspect, it seems to be remarkable that art innovations very often appear in a social and revolutionary atmosphere (in most cases without intended political meaning).

In issue 21 of the *Art and Documentation* journal, the invariant constitutive structures of avant-garde (groups) are explored. For the development of avant-garde groups, constitutive phases for their rise and decline were described, which surprisingly corresponds with the story arc of classical drama: investigating different groups, each time there could be seen the phases of Protasis-Prefiguration, Epitasis-Conspiration, Katastase-Scandalon, Peripetie-Battaille, Retardation-Iconostasis, Lysis-Epigony and Katharsis-Mythification.

The meaning of "avant-garde" is a phenomenon invented by social philosophers. In 1825, Henri de Saint-Simon transferred the notion from the military idiom to social-philosophy by seeing avant-garde artists as constitutive for intellectual revolution and society to come. Since then, it was the intellectual topic of mainly social thinkers, reflecting whether avant-gardes could be autonomous within a bourgeois society. One of them was Peter Bürger,[6] asking (in the seventies) for the difference between art as institution and the singular art piece from the view of literature science. This connects him with Pierre Bourdieu, who asked for the social conditions of art-making and art reception.

The changing common belief (religious and/or secolar) of an era is implicitly expressed by its art, but also by changing habitus–types of artists. So Modern age (between French and Velvet Revolution) was dominated by the belief in one–way progress (with a maximum in the first half of twentieth century), and its avant–gardes have been the adequate form for agitative behavior to put innovations through. Today our belief turned to a pluralism of possible truths, expressed in Contemporary art were no more avant–garde fights are needed.

In the avant-garde research of the last centuries, the question of why they vanished is a central point of discussion: have they failed, or have they been victorious to the death? The latter was suggested in the book[7] of sociologist Klaus von Beyme. This field of art theory research is dominated by (positivistic) sociology, so the approach used here by the term "belief" will certainly be looked at as an exotic proposition. The term "belief" was replaced during the age of Enlightenment and later in the Modern period by the term "knowledge," but it was Kant himself, who pointed out, that every rational system has to be based on an axiomatic believable "ultimate reason" that cannot be proved.

In the more complex situation of society, the common belief of a group (religious and/or secular) shaped every expression of life, as Max Weber[8] pointed out. Art, especially, was a medium for the rituals of shamanism, polytheism and the Christian church, and even after French Revolution, the belief in secular aims.
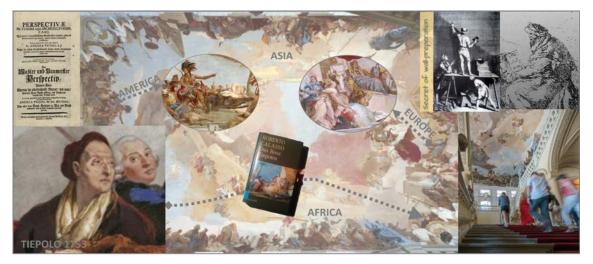
My following considerations attempt to look at the time-dependent modifications of innovative subjects and their avant-gardist and the "creative milieu," the self-estimations they might have had and the social image of the artist within its era, exemplified by an ideal-typology.

Progress and innovation in art

The belief of the period comprises the implicit and strongly articulated basis of art. In the modern period trust was placed in linear progress and rationality, as had been postulated by the Enlightenment. Ernst Gombrich[9] started to describe that in his speeches of 1971, but it looks like he lost the sight of the structures of progress while talking about the many examples. However, he worked out that progress is what happens, when innovative people advance it by expecting it.

Concerning changes of style, it is very interesting to look at people, living in the turning phases of history. Looking back and ahead at the same time, they estimate the culture they see around them as decadent and obsolete, and are fighting for a better one. But the acceptance of the anticipated future, expressed by artwork, depends on the art-field's development stage, as Pierre Bourdieu[10] explained.

The aim of this text is an investigation of the characteristics of the *phenotype* of the exceptional innovative subject (artist) of an époque, seen in terms such as: **Ingenious master, Genius, Avant-gardist or Creative star and Performative artist.**

An Ingenious Master (of fresco paiting): In 1753 Giovanni Battista Tiepolo came from Venice to Würzburg with his team, to make the large ceiling-painting for the arcbishop's residence and (using his italian *sprezzatura*), smuggled ironic details into the crowded composition with allegoric figures impersonated the four continents (known at this time)

This time series forms a coarse, idealised typology of subjects that saw themselves as unique and never wanted to be classified in this way. They would have disapproved, but this is the way of science and art-history: making distinctions and categories. But I hope the illustrative tableaus (*d'art historienne*) speak another language: they don't use long chains of (sometimes logically argued) sentences, but are able to show complex and pluralistic relations on a two dimensional surface at one glance.

1) The Masters, incredible "ingenuity"

Definition: an "ingenious" master (of the late Baroque) relied on his advanced technical skills and on his abilities in art and geometry. His religious belief trusted in Divine Providence, but sometimes was critically assessed by the incipient secular rationality of the Enlightenment: to be seen in the (lightly subversive) irony of Rococo.

Skies were so blue during the late seventeenth century: at least for owners of monasteries, castles and country seats, having – in the best case - large and "enlightened" libraries. Arts and Sciences were quite *à la mode* for those who were interested and for those who ordered painted skies. These ceilings were part of the aesthetical and educational program of the Baroque period: After the Reformation, the civil war between Protestants and Catholics in the Middle-European countries of Germany, Austria,

Czechoslovakia and Poland had been pacified again by the clergy and nobility. The Peace of Westphalia in 1648 had been the starting point for Counter-Reformation programs, while protestants had to convert or to leave and often fled to Northern Germany. Due to political circumstances the Baroque education and cultural program, with what was at the same time one of an absolutistic "enlightenment," by constructing churches, spreading religious orders, often Jesuits,[11] and by founding new monasteries and schools including pupil theatres[12] in every small town to get back control. Pupils often performed the play of the *theatrum mundi*, where God himself (as director) allocated different dresses (for different social figures) which are finally given back to him, and this way turned out to be less important. This way a strict *ordo-system* was installed again by performative propaganda, and also by new stage-like buildings for clergy and nobility.

While in the High-Renaissance some artists got divine admiration as *uomo universale* and developed their own art theories (like Alberti[13]) or in the late Baroque (Vitruvius[14]) had been often cited: he differentiated the three qualities of the innovative subject: *ars* for craft-skills, *ingenium* for talent and *doctrina* for learnt knowledge; and of course, the performative pomp of the Baroque *Theatrum mundi* had to be the expression of divine providence and the *Ecclesia triumphans*.

In the middle of the century, philosophers and artists were interested in the distinction

and presentation of emotions: René Descartes corresponded with Elisabeth of Pfalz on "passions,"[15] explaining emotions by connection with physical processes of metabolism, brain and the pineal gland, while Charles Le Brun gave examples of how to draw or paint certain emotional mimic expressions.

Some decades later, the art of crafts had changed to a more self-controlled attitude. Educated people showed a distanced and enlightened smile: *Contenance*! Many portraits of, for example, Isaac Newton, David Hume or Lord Shaftsbury show them with wigs and a slightly distanced smile. Educated people showed an attitude of *sprezzatura*, an Italian term, already described in a renaissance book from the early sixteenth century: Baldassare Castiglione's *Il Libro del Cortegiono*. In a fictional dialogue it describes the qualities of an ideal nobleman and his behaviour of noble and polite slackness to make complex knowledge or skills appear light.

Skills like those of architects, fresco-painters and masters of *trompe l'œil* perspective like Andrea Pozzo who in his book *Perspectivae pictorum atque architectorum* from 1749 gives technical and geometric explanations of how to prepare colourful pigments and wet mortar grounding, and how to construct and produce large ceiling paintings. It gives detailed lessons of erecting scaffolds, preparing suitable mortar, choosing the right pigments to achieve stable chemical combinations with the grounding, how to sketch the figures on the vaults and last but not least, how to construct spatial illusions by means of geometry. How the work of such masters has been organized and contracted, was shown during an exhibition in Vienna in 1996, presenting the correspondence of Anton Maulbertsch and his clients[16] as an example of the Rococo art scene. After the French Revolution, fresco-painting had been considered the art of feudalism and artists turned to painting on canvas.

Giovanni Battista Tiepolo (1696-1770) was born in Venice and worked in many places of Europe. His first paintings in Venice already showed an incredible lightness and made him famous. Being an artist of his times, he hoped for many orders from the church and noblemen.[17] As a person of the Enlightenment, he was cultivated and kept his distance and personal feelings to himself. He used to propose complex iconographic concepts to his sometimes less informed patrons, taking advantage of his sketches, he had in on dozens of portfolios (his thesaurus).[18] While working, being aware of his technical skills and his competence as artist, he might have reached a state of mind, where anything is going well at the best: this state had been described as "flow"[19] much later.

He knew well how to treat vain noble clients and was smart in presenting his iconological programs to them. While working on his large frescoes, he possibly changed some details and the meaning in a subversive way. For instance in 1753 for the prince-bishops residence in Würzburg, where he had to produce two frescoes: a large one for the stair hall (of 677 m²) and a smaller one in the emperors hall. Tiepolo got his orders from the count of Greiffenclau and he inserted some ironic comments on the court's society. With his team of assistants (including two of his sons) skilled craftsmen and local helpers he produced crowded stage play paintings: for the representative entrance hall, the team painted: *Apollo and the four Continents*, allegorically impersonated by four young women and their picturesque entourage. Within the exotic scenes (next to *Asia*), and according to archaeological discoveries of this time, he combined ancient fragments (with Greek letters) and a block of stone showing the creators name: Tiepolo. Near *America*, there is a crawling figure with brown coat and a big drawing portfolio, possibly trying to escape, maybe an annoyed artist looking for a better place?

When Tiepolo worked for the Spanish court in Madrid, he was confronted with young and very self-assured Anton Mengs, who was supported by his friend Winckelmann. These two considered Tiepolo as old-fashioned, they felt as upcoming Classicists and preferred *contour* to *colour*. They underestimated the old master and they didn't know better.

Of course Tiepolo kept his secret well: Since 1745 he worked on a series of etchings, called it *Scherzi di Fantasia* and let only good friends see them. While times turned more and more *Apollonian*, he added some *Dionysian* visions of strange ancient ceremonies next to archaeological fragments, rising from the ground. These enigmatic pieces connect him with Goya and the "gothic" romantic branch of art, while painters like him were considered as figures of feudalism.

The type of an inborn genious: Eugène Delacroix portraited himself in his famous picture: fighting on the barricades (of the 1830 revolution) for liberty (also of the new romantic art). At that time he was part of the Jeune France Group (>center) whose members were dressed dandylike, and made fun of the bourgeoisie (like in the famous battle of Hernani). But his special enemy was Ingres, who dictated the academic painting-rules and kept him out of the academy. Nevertheless he was admired as a genius of his generation (>right).

2) The "Genius" with (super)natural abilities

Definition: After the French Revolution, "ingenious" masters were replaced by the idea of the "Genius." This rather platonic idea follows the belief of a gift given to humans by supreme nature. This gift is a certain ability to become a unique creator and initiator of progress (like Prometheus), it can be developed (by self-education) or lost (by decadent civilization).

This thinking began with Lord Shaftsbury already who in 1707 considered "enthusiasm" as the main feature of the genius, later there was Edward Young, who saw a potential genius in every child, being degenerated by education.

Which person can be called a "Genius" had been a difficult problem of the eighteenth century, with many different definitions. On one hand it refers to philosophy and ways of living of Greece in antiquity, on the other hand it refers to the future in an utopian way. One attempt to describe it was an article of the French *Encyclopedia*,[20] published in the pre-revolutionary years from 1750-80:

> Genius – the wideness of the spirit, the imagination and alertness of the soul, this is what forms a genius. (...) The genius human is the one, whose widely spread soul, affected by perspective sensations of all the living beings, is interested in everything to be seen in nature, receives no idea who does not wake an emotion, everything affects them and everything is preserved by them.

The collection of the complete knowledge of the eighteenth century began with the British *Cyclopedia* in 1728 and on the Continent was based on the strong-headed editors of the French *Encyclopedie*: mathematician Jean Le Rond d'Alambert and the polyglot philosopher Denis Diderot, as well as many other writers. On one hand, there were readers/buyers from the nobility, on the other hand were middle class citizens, who became aware of their society-building self-confidence. They considered themselves as individuals who were permanently learning, who came together in the evenings to listen to readings, or spent hours with reading a book for themselves.

The citation includes some characteristic terms of the intellectual history of those times: "power of imagination," "sensation," "perception" or "interest." This is a terminology that had been prepared in the writings of Alexander Baumgarten, and defined and categorized by Kant. Kant's definition of the "Genius" in his *Kritik der Urteilskraft*[21] presumes an inborn state of mind (ingenium). Here he uses the Latin term "genius," which means approximately "creating power." So he denotes an ability, given to humans by birth: a person is able to perceive, to feel, and from this basis develop some imagination. In the eighteenth

and early nineteenth century, the term "genius" is applied mainly to describe men, although there lived many educated and brilliant women, like Mme de Stael, Angelica Kauffmann, Mary Shelley, Bettina von Arnim, and the Berlin-based artist-sisters Lisiewski.[22]

The "wide" spirit, as described by the *Encyclopedie,* can be developed by education by culturally interested parents, and continued as a grown-up adult through self-education. Those mostly middle-class young men focused completely on just one topic and created things, never experienced before: for example C. F. Gauss, Ludwig van Beethoven or Napoleon. Others developed as universalists, like Voltaire, Alexander von Humboldt, or Carl Gustav Carus.[23]

In the early nineteenth century (Romanticism), genius seemed related to developing one's individuality and inner life. How that was done, looked different from country to country: in Britain and France it seemed to be important, to show an eccentric (dandy-like) lifestyle and behavior, like Byron, Eugène Delacroix and Charles Nodier, connected with some "gothic" attitude.[24] While in Spain, after Tiepolo, Goya etched and painted his nightmares, being contemporary with processes of the Inquisition. In Germany, it was both contemplative (painting ambivalent landscapes like Caspar David Friedrich) or analytic: pre-scientific psychology like Carus, Philip Otto Runges research on colour, or the writings of the Schlegel brothers.

Eugène Delacroix (1798-1863) found a first taste of freedom and Byron-like dandy-style in London in 1825. Back to Paris, he got to know Victor Hugo, who invited the young painter to his weekly salon and introduced him to Charles Nodier, Gèrard de Nerval, Theophil Gautier and Petrus Borel. This was the beginning of a little romantic cenacle, called Jeune France. This group of eccentric young men enjoyed being dressed colorfully, having unconventional conversation and feeling quite "gothic" in a genial way.[25] They were in a restless state of mind, anticipating their life to begin and great things to do: In 1826, Delacroix was invited to paint some pictures in benefit of the struggle for liberty of occupied Greece, to be shown and sold in a gallery. One of the pieces he did was *Greek on the Ruins of Missologhi.*

He admired Byron, who went to Greece to support their fight. Delacroix sympathized and supported the Philhellenic movement, which spread all over Europe. Young people supported freedom-fighters, they related to each other under the title Young Europe, a movement founded by Guiseppe Mazzini. Part of these was the movement Young Poland/ Młoda Polska, as Poland was occupied by Russia, Prussia and Austria at this time. Jeune France had their battle too, in the theatre, where a play of Hugo was performed on February 21th, 1830. This was the well-known *Battaille de Hernani*, where the young, colourful and long-haired Romantics slapped the stuffy *bourgeoisie*. Delacroix kept his dandy-style and wrote his diary, where in 1824, he had thought about what a genius could be: "The essence of a genial person or rather his work does not lie in new ideas, but in the conviction that everything that has been done before him, was not done well enough."[26]

Still he thought of himself as a freedom-supporter: for his *Barricade* painting from the 1830 revolution, he present himself as a fearless dandy with top-hat and hunting-gun, fighting for liberty (especially of art and against academism). This painting shows a kind of ruthless enthusiasm, of one who does not care for anything else but the chosen aim. It was a great success at the Salon the following year and was bought for the Louvre.

The following years, Delacroix was a successful painter, he kept the attitude of a gentleman, being very enthusiastic for his art in a cultivated way (as Baudelaire described him in an essay).[27] After his death, in 1864, Henri Fatin-Latour's painting *Hommage à Delacroix* honored his influence on Édouard Manet and James Whistler, Charles Baudelaire and Champfleury.

3) The "Avant-gardist" anticipating the future and being a step ahead

Definition: the avant-gardist (in a narrow sense) is the type of innovative subject in the first half of the twentieth century. His belief in progress is expressed in the conviction, that art can and must change the life of a decadent society. Art can do this by discovering new ways of perception and artistic possibilities. While the avant-gardists (in a wider sense) in the nineteenth century had to fight for liberty of art and against the domination of the Salon (in France) and all the academies, the twentieth century avant-gardists fought for the priority of their discovery, for instance the expressive value of colours and materials, abstraction, primitivism or the poly-perspective of cubism and the velocity of futurism. Therefore artists had to anticipate the future and new dimensions of life by being a step ahead.

During the nineteenth century, official institutions of education and confirmation had lost their relevance, for example when the impressionists had found a possibility to show their pieces by founding an art-association, this was the end of the Salon de Paris, which was held for the last time in 1886. An Academy was no longer the only way to become an artist. Post-impressionists developed innovative ways of looking and making art, that could be the basis for the avant-gardists of the beginning of the twentieth century. The innovative person of this time had to develop innovative solutions, and as soon as possible mark them by written publications: papers, essays, patents or in case of art: manifestos in order to put his sign on it, usually related with scandals and exhibitions, using the means of early print-media. This way, in the first decades of this century, many art-isms followed each other.

The avant-gardist of art often got together with congenial friends to give each other resonance and help. Often they live and work together for some years in a kind of bohemian lifestyle. Mentally, they were engaged in creating a "new human being" by their art and way of life. The generations after 1900 had been influenced by Nietzsche's *Zarathustra* to do so.

In some cases, following the ideals of "originality" and *Lebensreform*, avant-garde-groups left the crowded towns to settle down in the countryside, to live an unspoilt and true life. The aim was to become truer, more spiritual and innocent again.

Nevertheless, the self-evidence of artists changed to the direction of more theoretical approach and the enthusiastic "natural born genius" was replaced by a both intellectual and sensual individual, using both his brain hemispheres[28] to make relevant art. In the twentieth century, scientists tried to get on the track of the innovative idea and to analyze the creative process. French mathematician Henri Poincaré reported in 1905 of his experience, how he succeeded to solve a mathematical problem and he recognized four steps in this procedure:

1. **Preparation:** studies in literature and collection of material concerning a certain problem.
2. **Incubation:** activities on other things, in his case it was a trip to the seaside.
3. **Illumination:** unexpected inspiration and problem-solving while getting off a bus.
4. **Verification:** the found solution has to be proved and evidence has to be furnished.

This process leads to the question of possible sources of creativity: the vast field of consciousness and the darkness of sub-consciousness. During the nineteenth century, it was attractive in different ways: in the excitement of spiritaulistic séances, which caused serious consequences sometimes. The other case were the narrow paths of scientific expeditions, trying to install categories and definitions, as the incipient neurology or psychoanalysis did.

There were some avant-garde-groups in France, looking for innocence and originality in art, for instance the Pont-Aven Group or the Fauves who got inspiration by the post-impressionists, just like the Bruecke Group[29] or the Blue Rider Group in Germany. In Russia and Italy, futuristic avant-gardes were affected by technical progress and had utopian aims.

An Avantgardist (in a narrow sense): Wassily Kandinsky about 1910, was fighting for the priority of his discovery: abstract painting, that was prefigurated by his book *Das Geistige in der Kunst* (Concerning the Spiritual in Art) and proposed during the exhibition-tournee of the Blue Rider Group in Europe 1912. At that time, the inner circle (>left) lived at Murnau, a village near Munich. Kandinsky was not sure, if he really was the first abstract painter, and indeed, there have been predecessors (>right)

Wassily Kandinsky (1866-1944) grew up in Odessa, after studying law, he moved to Munich in 1896[30] to become an artist. At the art-school of Anton Azbè, he met Alexej of Jawlensky and Marianne of Werefkin. In 1901, he and others founded the art-association and school The Phalanx. One of his students was Gabriele Münter, becoming his partner in life and in art. Together they visited the Salon des Indépendants in Paris in 1905, which was of great influence for both of them. When Münter bought a house in the village Murnau, in 1909, they spent much time there to work together. Kandinsky started to work in the garden, collect Bavarian folk art, and of course paint the countryside in a (still) expressionistic way. But he had already set his mind on something else: his paintings of this years show an increasing tendency to abstraction.

Being interested in many things, he took notice of innovative discoveries of science, as well as esoteric thoughts for example theosophy, as described by Mme Blavatsky and Rudolf Steiner. He believed in the spiritual progress of mankind by the means of art. He had been approaching pure abstraction for two years: he replaced sensual impression from outside by inner sensation. This was a direction of development that was hanging in the air at the time and was tried in different places, too.

In 1911 he published his book *Über das Geistige in der Kunst/Concerning the Spiritual in Art*, to explain his own first abstract paintings, presented at the exhibitions of the expressionist The Blue Rider Group, initiated by him. He wrote this book to mark abstraction as his invention and to introduce his model of spiritual progress of society: an uprising "triangle of creators"[31] with prophetical artists (painters, composers, writers) on top, who see the yet Unknown and Unsecure. In the layers below them, there are creators of less innovation, till at the triangle's bottom there are traditionalists, epigones and decorators.

Kandinsky felt the need to express the inward and spiritual world in an intellectual way. He did this by means of colours, bringing them into a balanced harmony, colours that he seems to perceive synesthetically. His intention to approach spirituality, needs the development of sublime perception. To him an artist is a servant of higher aims. In his book he noted:

An Artist must be adequate to his talent. (…) his actions, thoughts and emotions are material of his creations, which again are effectual to spiritual atmosphere. (…) If the artist is the "priest" of Beauty, so this Beauty is to be searched by a principle of inner value. Beautiful is what comes from the inward need of the soul.[32]

4) The Creative Star

Definition: this type is an invention of middle of the twentieth century postwar times. US stars of film and sport became famous in Europe, why not stars of art? Privately he or she might be shy, but his official *persona* (representing the future) shines brightly. Creativity now could be tested and trained and everyday life polished with glamour. When art mingles with marketing, cultural industry and mass-media-attitude, a star is born.

Becoming hegemon of the Western World, the US made much effort to overwhelm Europe with its pragmatic, materialistic, glamorous lifestyle of mass-consumerism: by attracting people with shiny products and rocking rhythms on the one hand. The other one was to influence the art world, by installing galleries (Maeght, Kootz) and cultural institutions, like the American Institute in Paris, with the aim to dominate European art.[33] Because cultural influence was a condition of the Marshall Plan, and a Campaign of Truth began at 1948, followed by culture-politics, featuring popular sensations and events, assisted by Hollywood. American fine arts started with Abstract Expressionism with high theoretical expectations, later replaced by Pop Art, which was considered as more American-way-like by many US artists and collectors. It used the pictorial language of advertising and seduction, well-known by everyone, without causing the anti-art reflex, but also could be seen as ironic comment.

During the Cold War, when the USSR turned out to be able to develop a technical device like the Sputnik, that flew over US territory, America was shocked. Until then there had been great efforts to find the most intelligent persons (by IQ programs) for military research. Since 1950, the leading inquirer of individual psychology, Joy Paul Guildford had been working in researching creativity as part of individual personality. There he made a distinction between convergent and divergent (determined and digressive) thinking. After him, it was Ellis Paul Torrance, who developed a creativity-test for pupils in the years after 1960. This was a simple test in divergent thinking, with four scales: fluidity, flexibility, originality and ways of practice. The starting-question of a test used to be: "What can be done with a brick?"

In popular creativity-research, Arthur Koestler edited a book with the title *The Act of Creation,* that became a bestseller. On approximately 500 pages Koestler tried to analyze the creative process in the arts and science. As a model, he suggests a process, that can happen after a certain time of puzzling and reflecting, if the researcher turns his mind to different, easier topics. But what leads then to a sudden almost automatic problem-solving? He explained this procedure, called "bisoziation," as a crossing of two already familiar circumstances, which had been separate and suddenly became linked. This is a subconscious ongoing process, resulting in Archimedes' "heureka" and to numerous problem-solvings in the history of arts and science.[34] He described parallels to playing and to unexpected changes in meaning of words in jokes, producing laughter. French mathematician Henri Poincaré and his four phases of problem-solving had been mentioned before, as well as psychologist Joy Paul Guildford and his distinction of convergent and divergent thinking.

The belief in "Genius" was replaced by the mechanism of "Explorative behaviour." The expanded field of creativity research seem to offer a better understanding in the disciplines of psychology, sociology and neurosciences. So de Bono's term "Lateral Thinking" seems to be fruitful for the understanding of creative phases. Or the model of neuronal network, proposed in Margaret A. Boden's book *The Creative Mind* with a degree of complexity from which unexpected and incalculable solution emerge.

French sociologist Pierre Bourdieu described how creative artists interact with the surrounding social art-field, (consisting of critics, curators, academies, art-dealers, collectors, galleries, museums, etc). His book *Kunst and Kultur* is about, how these institutions and individuals influence each other, accumulating "cultural capital."

The creative star: Andy Warhol is a new type of artist who belonged to the pop-art-group, kept together by Leo Castelli gallery as their sales-center. The Factory was Warhol's NY headquarter, open for visitors, where he produced his screen-printings with a young bohemien entourage. The exhibition of Brillo boxes at Stable gallery 1964 caused Arthur C. Danto to write his book, and it was the time when psychologist Guilford proclaimed the dominance of creativity over intelligence. Warhol's experiments films und music productions proved this.
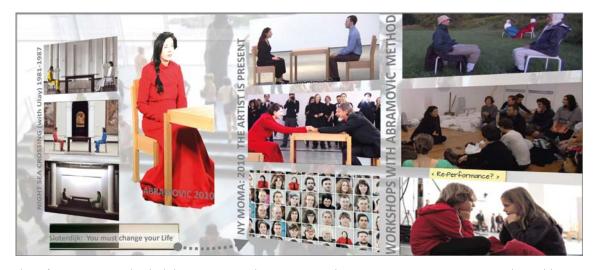
Andy Warhol (1928-1987) was the shy and sick child of a family of *Ruthenians* (Slovakian/Polish) migrants, living in Pennsylvania. Grown up, he moved to New York and started a career as commercial artist, designing fashion magazines, shop windows and posters. In 1962 he showed his silkscreens of *Campbell Soup cans* at Martha Jackson gallery and at Elanor Wards Stable gallery (November), where at the opening he gave away buttons (with a Soup can motive) and ribbons (with his name) to make visitors remember him. During the next year, he opened his first factory in a warehouse and started to produce his first films: *Empire* and *Sleep*.

In 1964, he was really busy, in January he had a show at Sonnabend gallery in Paris, where he presented his flower-silkscreens. In February he participated in an exhibition at the Virginia Dwan gallery in Los Angeles called *Boxes*, together with Marcel Duchamp, Kurt Schwitters, Tom Wesselmann and Louise Nevelson. The catalogue consisted of a roll of documenting photographs glued together inside a cardboard box. While Warhol watched the world of advertising and fashion around him, he turned to a white-haired alien and started to think about "what else he could do with a box?"[35] In April he showed his wooden *DelMonte* and *Heinz* and *Brillo Boxes* at the Stable gallery, stapled like in a warehouse.[36] At this time, critic Arthur Danto[37] took notice of him and reflected about fluidity of everyday and art aesthetics.

What was it that made Pop Art so appealing? Richard Hamilton wrote in a letter, in 1957 already:

Pop Art is: Popular (designed for a mass audience), Transient (short term solution), Expendable (easily forgotten), Low cost, Mass production, Young (aimed at youth) Witty, Sexy, Gimmicky, Glamorous, Big Business.[38]

Warhol and his creative entourage manufactured many silkscreens (semi-originals with changed colours), experimental or trash films, and music in the silver-wallpapered Factory, a meeting-place of the creative community (like Velvet Underground, Dali etc.). His new art-dealer was Leo Castelli, who assembled a kind of "commercial avant-garde," and Andy was the Star. His pictures were the perfect mirror of the one who looked at them: they could be seen as affirmative or as critique of mass and advertisement culture. So his art-pieces did not lose their relevance during the Hippie Revolution of 1968. The ambivalence of his *Disaster, Race-riot, Thirteen Most wanted men* series, and his *Flower* series left ambivalent impressions, and Warhol increased that with his enigmatic statements of sublime triviality, he published in 1975 as *The Philosophy of Andy Warhol from A to B and back again.*

The Performative Artist, speaking body-language: Marina Abramović's project The artist is present at MoMA NY 2010 started around the time, when italian Neurophysiologist V.Gallese and his group proved the experimental evidence of empathy: the question, why we can feel, what our vis-à-vis (in his individuality) is feeling: a much more fundamental means of communication than spoken language and its logic, on which the believe in progress of modern era was based. Here art is moving towards therapy.

5) The Pluralistic Performative Artist

Definition: a person of complex and pluralistic thinking, who appreciates living in different cultures and situations, and who can create situations of "liminality"[39] (a process of uncertainty and vulnerability in three steps: alienation from common life > transformation phase and > incorporation with a more sensible mindset and modified status) between him/herself and the recipient. This offers a high grade of potentiality.[40]

While common belief in the modern period focused on one-way progress, in the times after the Velvet Revolution, it turned towards pluralism as new way of salvation. Jean-Francois Lyotard started the discussion with his proposal concerning *Postmodern knowledge* for the Canadian government already in 1979. He deconstructed the hegemony of Western competences and valued narrations and traditions of other cultures as equivalent. Could this be seen as a trial to re-start modernism again and hope for better results, by more listening and less proclaiming?

However, since then, many "cultural turns" drew attention in various directions without causing a fundamental change of paradigm. Therefore, at the same time different but equal truths seemed to describe the world better than before, and avant-gardes struggles were obsolete. Art curators sought salvation by presenting images and objects of divergent cultural traditions as innovative for western audience, which was not always convincing. The trend of "relational"[41] shows produced mostly wellness-places for informal encounters of little mental impact, sometime it reminds one of the exoticism of former times. Often the over-presence of aesthetics turned to "anaesthetics."[42] Are we living not in the best possible world of available information, but in an amnesic gambling mall of amusement and *Zerstreuung* (this German word denotes both amusement and being dispersed to little items, without useful centre); in the literary sense of the word, without having strength and concentration? We, the people of planet Earth, are still practicing to find the best possible ways to sculpture our individual lives and social interactions by training, what Peter Sloterdijk calls "anthropotechnique," he proposes in his volume *You must change your life*.

Contemporary belief in pluralism demands many efforts, ambiguity, tolerance and patience on both sides, and as the mental starting points are so different, true understanding cannot be guaranteed. It is difficult, not to be lost in translation, but yet possible, if patience is strong enough. So diversity can be the main factor of creativity, as a group of psychologists (Fink/Benedek)[43] at Graz University showed: during a creative process (like in Guilford's brick-test) good results appeared when the areas of the right and left brain showed different activities (comparable with Koestler's "bisoziation" or de Bono's "Lateral Thinking").

But with the condition, that this divergence found its interaction (as the solution of the problem) in the frontal cortex of the brain.

Everyone has seen the disadvantage of rationalism and the thinking in linear chains, which has caused the global problems of today. Vivid living systems consist of many interacting, partially autonomous sub-systems and their dynamic is too complex for the (exact) science of today that has no methods to describe that. But there are system theories considering the behaviour of the part and the whole and that argue that complex systems are more than the sum of their parts and show the surprising ability of optimal self-organization (*autopoiesis*). This is the paradigmatic biological guiding idea of the present day, which is related to a philosophy, ideology and belief of (mono-) pluralism, and which is not yet completely understood. Certainly it is not the unstructured collection of different pieces with only weak interactions.

But art seems to be a good training for pluralistic behaviour: painting a picture is just the process or organizing different forms and colours on a surface until they interact in a way, that gives us the good feeling of resilient liveliness. The complexity of this activity increases in an ongoing performative situation in which the presence of the artist has a catalytic function.

Marina Abramović (b.1946) entered the art-scene with her expressive performances in the 1970s. Headstrong and often close to self-damage, she challenged the audience and its reactions. 1975-88 she and her partner Ulay performed in (female-male) relationships and in contemplative/ascetic practices, then they quit the relationship with a final performance on the Chinese Wall.

Sitting face to face to each other without moving, without eating or drinking was the setting of the *Night Sea Crossings* she did with Ulay in the eighties. Sitting quietly and looking at the opposite person is also, what she did in her exhibition *The Artist is Present* at MoMA in New York in 2010.

The visitor had to go through a ceremony, until taking a seat opposite her. At the entrance of MoMA she/he could already see a large poster with the artist's face. After having bought the ticket, in the morning, the audience had to wait downstairs for the opening by security. Then they rushed up the stairs to be the first in a row, which got longer and longer, soon: the first step of the "liminal process" – the alienation of common life and a phase of preparation. After waiting, individuals were admitted to the "audience" by museum assistants: there she sat like an Oracle or like a Buddhist priest, with lowered head. With the first steps toward her, the person entered the second step of the transitory process. Watched by the (still waiting) audience, the artist raised her head and looked at the person in front of her. Doing nothing else,[44] she caused everyone to refer to her- or himself (which moved many to tears). Now the visitor was part of the art-piece, wordlessly communicating with the artist and possibly had a quite intimate moment. A few people tried to perform themselves and were removed quickly. The third step of the transitory process was getting back into common life, but maybe with changed mindset or status, and a higher grade of freedom now. After the exhibition ended, she offered workshops with the "Abramović-method."

What happened could be compared to a poem of Rainer Maria Rilke, who in 1908 was assistant of August Rodin and, after having seen a *Torso of Apollo* in the Louvre, wrote the lines:

(…) from all the borders of itself burst like a star; for there is no place that does not see you. You must change your life.

Sloterdijk adopted these words for his book, published in 2011, thinking about, what he called "anthropotechnique." This expression is near to the term of "eudaimonia," the antique philosophy to find inner freedom and fortune by mental exercise. This is like the school of the Stoa and also Epicurius, where scholars trained to find the so-called *ataraxia,* that could be translated as "peace of mind" or "serenity," the conditions of higher mental states.

Multi-perspective Epilogue

Describing the different types of excellent innovative subjects, the question arises, what their constant basic disposition is. Because such subjects exists since the rise of Homo Sapiens. Perhaps some disciplines may help partially to explain this phenomenon:

Behavioural sciences examine the inborn driving forces of curiosity and play in young and adult animals and humans. This explorative behaviour is affected by stress, connected with uncertainty on one hand, and on the other hand by the happiness-making endorphins when the exploration is successful.

Evolutionary epistemology looks upon this phenomenon in the context of cultural development and one of the result is that the period of playful childhood increases in human high cultures and some advanced subjects (for instance in science and art) will stay childlike as source of intellectual curiosity. Konrad Lorenz explained this by his own habitus. In anthropology, the term "Homo ludens" denotes the main aspect of humanity and it is used by Johan Huizinga, and before him by Friedrich Schiller in his *Esthetic education.*

Curiosity and play are basic conditions in the field of creativity research, where also many other parameters are examined to find useful heuristics to discover the new. Moreover, it is funny to see the difficulties of this discipline to measure the creativity of contemporary artists, because researchers get their values by statistic average, while artists intend to escape the common. Common popular culture has misused the terms of "curiosity," "play," "creativity" and "innovation" to justify all those low level aesthetic productions for instance of the internet community; who doesn't want to spend years of effort to understand art or science. They just want to have fun. Immediately!

But to discover something advanced and "new" needs a high level of information, otherwise the "wheel is reinvented," which for children should be useful and exciting. Exciting, because an idea always comes suddenly (like from above), and the result shows the surprising evidence of truth, by the *heureka* experience.

But the creative act in most cases is a joyful, but isolated moment and needs publication, to turn a creative person to an innovative subject. When the new discovered or invented matter is honored in the right context, and slowly diffuses to a wider part of society, it changes the way of reception and thereby the way of life. This was the basic intention of all the modern avant-gardes: to find a new way of living. System theory is the discipline that perhaps is able to describe such suddenly emerging changes of perception, and therefore could help to explain their neighbourhood to social revolutions.

The belief in the power of beliefs and ideologies, concerning especially art here, is inspired by Emile Durkheim[45] and Max Weber and their sociological publications around 1900, but also Arnold Toynbee's philosophy of history. If we consider our chain of innovative subjects under this aspect, we see (distilled from the artist's work and documents) that:

- **Tiepolo's belief was still based on divine providence, but with ironic sidesteps: because French Revolution was coming closer.**

- **Delacroix's belief had a pathetic, revolutionary impetus: the "genius" has to go ahead fighting for progress and liberty.**

- **Kandinsky's belief was centred in the spiritual progress of mankind and "avant-gardists" are the priests of this evolutions.**

- **Warhol's belief in progress was driven by a narcotic Baroque lifestyle between glamorous fame and memento mori.**

- **Abramović's belief was experienced by ascetic training, and extreme states of consciousness, leading to a cult of empathy.**

Summarizing the above, it can be predicted that the advanced innovative subject (based on the common belief of his time) also in the future, will find its controversial/admired individual way to an adequate new.

Notes

[1] Ernst Cassirer published his text *Freiheit und Form* in 1916. Being the brother of editor Bruno Cassirer and gallerist Paul Cassirer, he was in close contact with the art and philosophy of his time. He looked at the construction of Western civilization and discerned its gnesis in terms of the "symbolic patterns" of Language, Mythos, Religion and Art. From this emerges a matrix of specific human actions whose semantic expressions are built by signs, icons or terms. This structure Cassirer calls a "Symbolic form." Cassirer published *The Philosophy of Symbolic Forms* in three parts: the first part concerning *Language* in 1923, the second part *Mythical Thought* in 1925 and the third part *Phenomenology of Knowledge* in 1929. Cassirer's *An Essay on Men* was published in 1944 instead of a translation of *The Philosophy of Symbolic Forms*: here he adds further distinction: he supplies Science, History and Technics. Art offered him a possibility to put structure into human thought, and some kind of liveliness. The art-recipient's ability to reflect increased and causes a higher intensity of experience.

[2] Which, in my case, I learned from: Ernst Gombrich, *Kunst und Fortschritt. Wirkung und Wandlung einer Idee* (Köln: Dumont, 2002), 9.

[3] Ernst Kris and Otto Kurz, *Die Legende vom Künstler* was published in the 1930s.

[4] Rousseau's essay for the Dijon academy of 1750 was cited and translated after: Ernst Gombrich, *Kunst und Fortschritt, Wirkung und Wandlung einer Idee* (Köln: Dumont, 2002), 25.

[5] Cited after: Peter Sloterdijk, *Sphären I* (Frankfurt/Main: Suhrkamp Verlag, 1998), 11.

[6] Peter Bürger in the *Theorie der Avantgarde*, the way of his questioning is based mainly on the philosophy of Marx and Marcuse.

[7] Klaus von Beyme, *Das Zeitalter der Avantgarden* (München: Beck Verlag, 2005).

[8] Max Weber published his famous *Die Protestantische Ethik und der Geist des Kapitalismus* for the first time in 1904/05. In the 1930s, Talcott Parsons translated it to English and called it *The Protestant Ethics and the Spirit of Capitalism*. Weber's text underlines, that (in contrary to Catholics), Protestants believe in a God who selects certain people, and the indicator for this grace is their economic wealth. That is the way, how capitalism can become an expression of religious belief and determines a social structure.

[9] Published by Ernst Gombrich under the title *Ideas of Progress and their Impact on art* and *Kunst und Fortschritt* in German.

[10] Pierre Bourdieu, *Kunst und Kultur* (Berlin: Suhrkamp, 2015).

[11] For example in the Upper-Austrian town Steyr, where the Jesuits settled down in one side of the town-center and the Dominicans on the other. They had large monasteries, churches and schools built, and controlled the education and behaviour of their subjects.

[12] Christoph Nebgen, "Religiöses Theater." In *Europäische Geschichte Online Institut für Europäische Geschichte*, Mainz, 2010-12-03. http://www.ieg.ego.eu/nebgenc-2010-de.

[13] Leon Battista Alberti was an *uomo universale* of the Renaissance, philosopher, artist and writer of famous books on painting and architecture: *Della pittura* from 1436 and *De re aedificatoria libri X* from 1452.

[14] The *De architectura libri decem* of Vitruvius, giving full details about the architectural theories of antiquity, were published in the 1st century BC.

[15] The correspondence with Elisabeths von der Pfalz was published in the last two years of Descartes life: 1649 in Paris and 1650 in Amsterdam; I refer on the German volume *Die Passionen der Seele*, published in 2014 by MeinerVerlag.

[16] Nora and Gerhard Fischer, *Maulbertsch*, 1996 Vienna; this quite interesting exhibition related to a Maulbertsch fresco in the Viennese Academy of Science with the colour-pigments the artist used. On the floor, under that ceiling, artist Nikolaus Lang placed many patterns of all the pigments used by baroque artists. The whole installation reminded of a colourpoint carpet.

[17] Annette Hojer, „Spielraume der Fantasie," in *Tiepolo der beste Maler Venedigs* (Stuttgart: Sandstein Verlag, 2019), 18.

[18] As brilliantly described in Roberto Calassos essay on Tiepolo. See: Roberto Calasso, *Das Rosa Tiepolos* (München: Hanser Verlag, 2010), 93.

[19] *Mihály Csíkszentmihályi's* book *Flow:The Psychology of Optimal Experience* was first published in 1990, translated into many languages and had many editions.

[20] Günter Berger, *Jean Le Rond d'Alembert, Denis Diderot u.a. Enzyklopädie – Eine Auswahl* (Frankfurt: Fischer Verlag, 2013), 163

[21] Immanuel Kant, *Kritik der Urteilskraft* (Köln: Köhnemann Verlag, 1995), § 46.

[22] These two ladies were raised in an educated family of Polish migrants, and are characteristics of the transformations from feudal-court art genially self-determined art-practice, they are better known as Rosina de Gasc (1713-83) - Anna Rosina Lisiewska and Anna Therbusch (1721-92) - Anna Dorothea Lisiewska. De Gasc painted mainly portraits, became a member of the Art Academy in Dresden in 1769 and painter of the court in Braunschweig in 1777 and was part of the circle around Lessing. Therbusch went to Paris in 1765, there painted Denis Diderot and exhibited in the *Salon* of Paris. In 1768, she was accepted by the Academy of Arts in Vienna with a portrait of Jakob Phillip Hackert. Back in Berlin she did a portrait of Friedrich II and founded a successful atelier with her brother. There have been published scholarly and fictional books on both of them.

[23] Who was a medical man, researcher and painter, and wrote a book concerning the Psyche: Carl Gustav Carus *Psyche, zur Entwicklungsgeschichte der Seele*. Pforzheim, 1846.

24 And wrote some gothic novels like Mary Shelley's *Frankenstein*, or Theophile Gautiers *Onuphirus*, etc. Another aspect of the gothic attitude was architectural: all over Europe, ruins were built, to create some melancholy or lightly scary atmospheres.

25 In 1856, Gautier published a volume on the *cenacle*, called *Jeune France* with a front-cover in gothic style.

26 Cited from Erich Hanke, ed. *Eugène Delacroix, Mein Tagebuch* (Zürich: Diogenes Verlag, 1993), 15.

27 After Charles Andres, ed. *Charles Baudelaire, Aufsätze* (München: Goldmann Verlag, 1960), 78.

28 The different brain-centers had been localized during the 19th century, for instance by phrenologist Franz Gall (1758-1828) whose method became well-known and then obsolete. Investigations went on and Paul Broca (1824-1880) discovered the different functions of the hemispheres: the left one functions better with linear-logical input like language; the right one processes pictorial information. Both parts have to cooperate for creative output.

29 Karin M. Hofer, "Avant-Garde Groups and Their Invariant Development-Structures. Example: The Bruecke Group." *Art and Documentation* no. 21 (2019): 105-118.

30 His legend narrates, that he was strongly impressed by seeing Monet's *Haystacks* at an exhibition in Moscow.

31 After Wassily Kandinsky, *Über das Geistige in der Kunst*(München: Piper Verlag, 1912), 11 passim.

32 Ibidem, 118.

33 As Wyss described it in his book, see: Beat Wyss, *Die Wiederkehr den Neuen* (Hamburg: Philo Fine Arts Verlag, 2007), 90 passim.

34 Arthur Koestler, *Der göttliche Funke, Der göttliche Funke* (München: Scherz Verlag, 1966), 105.

35 www.warholstars.org/timeline.

36 Described in: Lucy Lippard, *Pop Art* (München/Zürich: Knaur Verlag, 1969)*,* 106.

37 Arthur Danto, *Die Verklärung des Gewöhnlichen* [*The Transfiguration of the Commonplace*] (Frankfurt/Main: Suhrkamp Verlag, 1996).

38 www.warhostars.org/timeline.

39 Arnold van Gennep and later Erika Fischer-Lichte described a process of performative (group) action to create a transitory process of reaching a more advanced mindset and status than before.

40 Karin M. Hofer's text of 2014, *Strategien der Potentialität*, reflects the potential content and consequence of twenty first century art, by giving examples of expanded sculpture.

41 Nicolas Bourriaud is a French art-historian and curator of *Global art,* who writes about his theoretical and organizational works, that he understands as "relational."

42 Wolfgang Welsh, *Ästhetisches Denken* (Stuttgart: Reclam Verlag, 1990).

43 Who published their papers in 2014 and 2018.

44 *The Artist is Present*, DVD and leaflet published by MoMA in 2010 This film documented the exhausting practice of the artist during the show: sitting motionless for many hours is the hardest exercise.

45 Durkheim denotes this as *Kollektivbewusstsein*, see: Emile Durkheim, *Über soziale Arbeitsteilung, Studie über die Organisation höherer Gesellschaften* (Frankfurt/Main: Suhrkamp Verlag, 1992), 128.

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