Environmentally Engaged Art/Science Collaboration and Aesthetic Appreciation of the Environment

Abstract

From the 1970s we can observe new art practices that combine creative artistic strategies, scientific research and interest in environmental issues. Starting with the Harrisons or Hans Haacke, artists begin to experiment with scientific data to help protecting environment, focusing on problems of soil degradation (Rahmani), water pollution (Simpson), deforestation (Steinmann), ecosystem instability (Hull) and many others that influence appearance of natural, semi-natural or artificial environments. In these restoration or environmentally engaged art projects, galleries are left behind and works are situated in the environment, so the art/science collaboration directly changes aesthetic qualities of chosen area. The role of science here is to rectify the artistic creativity to achieve environmental improvement of the site, an emphasis is given not to show the beauty of art in the environment, but to return back the lost aesthetic value of damaged natural environment.

In the paper, I want to focus on new extends and problems that these art practices interpose in environmental aesthetics, especially in its cognitive branch. My aim is to show that, on one hand, both new art practices and cognitive approaches in environmental aesthetics try – though in different ways – to accent natural beauty with a help of scientific knowledge, but, on the other hand, this type of art disproves cognitivist assumptions that sharpen the distinction between aesthetic appreciation of art and nature (f.e. Carlson's natural environmental model or Parsons's scientific cognitivism). I want to argue that new art/science projects with its focus on conceptual forms of art, improvement of damaged environment, cooperation with scientists and favoring nature over artwork – minimizes differences between artistic and scientific, artificial and natural. This presupposes the revision of separation of the environment's aesthetic valuation from other types of aesthetic experience. In this point of view, new artistic practices with their social, cultural and ecological overlap correspond better with other approaches in environmental aesthetics, for example with Berleant's broader concept of aesthetic appreciation of environment that blurs dualism between nature and human, or subject and object.

Introduction

In the 70s, we can observe both in art and aesthetic theory increasing interest in environmental issues that has its origins in the growing force of environmental movements and strengthening of public concern about the environmental problems such as loss of biodiversity, pollution, climate changes and many others. Artists as well as aestheticians turned their attention to nature and began to focus on how to appreciate it correctly and how to make ecologically sensitive art. Natural sciences played an important role in some of their concepts.

In this paper, I want to concentrate on the intersections of art, aesthetics and science to show the problems of cognitive approaches (with emphasize on Carlson's) in environmental aesthetics. Firstly, I will describe main principles of environmentally engaged art/science collaboration and show some
examples from art practice. Secondly, I will shortly introduce cognitive branch of environmental aesthetics with a special focus on a role of scientific knowledge. Finally, I will try to argue how environmentally engaged art infirms essential pillars of this approach and search for more inclusive concepts of aesthetic valuation of nature.

Environmentally engaged art/science collaboration

By environmentally engaged art I understand art practices which put on first place environmental dimension of art projects. Their aim is not to improve natural environments by the artwork, but rather to return aesthetic quality of damaged nature back, or to protect it.\(^1\) We can observe a shift from the object-based art to its more conceptual forms, where considering the environmental improvement is substantial for art creativity. Art theorist Suzi Gablik demands art with active engagement in solving social and environmental problems, the consequences of today's society in crisis. According to her, artists should accent interconnection of the universe and help to create moral values that would integrate ecology, social relations and Earth stewardship.\(^2\) Her concept of art’s *ecological imperative* leads to the protective dimensions of artistic practices that can help nature and people to recollect their belongingness to natural environments.\(^3\)

If environmentally engaged art is primarily an artistic effort to protect nature or to improve harmed environment, then scientific knowledge has to serve as an informative apparatus of artists. For environmentally sensitive projects, they work with scientific data to understand ecological functions, or they choose direct cooperation with naturalists who can rectify their purpose.\(^4\) Artists Helen Mayer Harrison and Newton Harrison are dealing with environmental issues for more than forty years and use

\(^1\) This is the biggest difference between land art, environmental art and environmentally engaged art. Both land art and environmental art (and to some extent also eco-art, which definitions vary and can be included in environmentally engaged art as well as in environmental art) – even in different intensity – use nature as background of their artworks which is dominant over natural environment.


\(^4\) In this paper, I will focus only on question how artists are using the science in their art and what are the benefits of this collaboration. Nonetheless, it is also good to mention that not only science can be useful for art, but also art can be useful for science. F.e. see Stephen Wilson, *Information Arts. Intersections of Art, Science, and Technology* (London: The MIT Press, 2002). I will also leave aside the debate about the positives and negatives of scientific dominance in environmentally engaged art that is often held among artists. For further discussion see Suzi Gablik, ‘Connective Aesthetics: Art after Individualism’, in *Mapping the Terrain: New Genre Public Art*, ed. Suzanne Lacy (San Francisco: Bay Press, 1995) or Jale Erzen, ‘Ecology, Art, Ecological Aesthetics’, in *Ecological Aesthetics: Art in Environmental Design: Theory and Praxis*, eds. Heike Strelow and Hermann Prigann (Basel: Birkhäuser Architecture, 2004).
cooperation with scientists and public as a basic tool for their projects. In their *Sava River Project* (1989-1990) they proposed a nature corridor to protect Yugoslavian river Sava. They worked with local communities consisting of environmental activists, ecologists and water department, and created complex project that was accepted by the authorities.

Swiss artist Georg Steinmann released between 1996-2007 project called *Komi: A Growing Sculpture* with an aim to create transdisciplinary network that would try to preserve wilderness in Russian region Komi. This ecologically precious area is under permanent threat of ecological degradation, because it mineral resources richness. Steinmann created a platform, where foresters, ecologists, urbanists and local citizens could discuss the possibilities for environmental protection as well as educate one another and share the different perspectives on surrounding natural environments.

Different approach chooses Lynn Hull. She calls her projects “trans-species art” and situates them in ecologically damaged areas. Here she places sculptures that serves as home for wild animals. Installations, mostly from natural materials as wood or stones, are at the same time refuges, breeding places or resources of food and water. To achieve a successful result, Hull has to learn about the habitat, way of life, abilities and ecology of present species. The starting point for her artworks is then some sort of scientific research in which she frames her installations.

Art and science collaboration in those projects originates from the moral demands of authors who consider holistic perspective of people and nature relationship and need for environmental care as crucial. Artists accept intrinsic value of nature that they understand as superior to value of art. As declare the Harrisons: „*Our work begins when we perceive an anomaly in the environment that is the result of opposing beliefs and contradictory metaphors...For us, everything started with our decision...to deal exclusively with issues of survival as best as we could perceive them.*“ With this point is also connected aesthetic dimension of art projects – an artist’s aim is not to show the beauty of art in nature, but to emphasize the beauty of nature itself. In what theoretician Heike Strelow calls *ecological aesthetics*, it is important to understand that „*[n]ature is the beginning and the end of culture, the one is inherent in the other.*“ Aesthetics of environmentally engaged art should depict this close connection between cultural and natural worlds and emphasize the importance of natural systems. The ethic and aesthetic aspects of artwork fade one into another.

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Cognitive Environmental Aesthetics

Separately from these new tendencies in art, in aesthetic theory emerges an interest in nature too, and a new branch of environmental aesthetics starts to reflect our aesthetic attitudes towards natural environments. Analogous to new art practices, some aestheticians also accentuate scientific knowledge as an important predisposition of correct aesthetic appreciation of nature. Carlson’s cognitive model of natural environment emphasizes this importance the most. According to him, aesthetic judgment of nature is not possible without scientific knowledge about this type of environment. “The natural environmental model holds that in the appropriate appreciation of nature the required information, justified belief, or knowledge is that which is provided by natural sciences and their commonsense predecessors and analogues.”

Scientific information, notably from the fields of ecology, geology, zoology or botany, turns an aesthetic experience into more meaningful and deeper and shows the viewer one correct way of appreciating the object. “Scientific information and redescription make us see beauty where we could not see it before, pattern and harmony instead of meaningless jumble.” This idea is further developed by others, f.e. by Malcolm Budd or Glenn Parsons. Budd assumes that not every type of scientific knowledge is important in aesthetic valuation of nature and perceiver needs to select information that are necessary for his aesthetic experience. In this manner continues Parsons who reformulates the normative element in Carlson's scientific cognitivism. He supposes that we can divide natural objects into many scientific categories that represent broad scale of characteristics often impossible to define all, and some of them are not even necessary for aesthetic qualities of these natural objects. Parsons proposes to use only those categories which are the most suitable for aesthetic perception of the object. In Parsons words: “[To] view the object under scientific categories in which it truly belongs and which maximize the aesthetic appeal of the object.”

Even though both Parsons and Budd narrow the extent of scientific knowledge in aesthetic experience, it is still crucial instrument of nature's valuation.

Positive aspect of cognitive approach is some level of objectivity that scientific data can guarantee to some extend. This presumption also leads to positivist belief that all natural objects are

beautiful, and to realize this, we only have to appreciate them correctly (i.e. with a help of scientific knowledge).\(^{11}\)

In the field of environmental aesthetics, there has been a serious discussion about the limitations and reductionism of this position, which I will leave aside in this paper.\(^{12}\) My aim is to look closer on how such an approach makes a dichotomy between aesthetic appreciation of art and nature or how environmentally engaged art/science collaboration can this dichotomy deny.

### Cognitive environmental aesthetics challenged by environmentally engaged art/science collaboration

Even though cognitive environmental aesthetics has been criticized by other aestheticians for its insufficient and limited set of possible aesthetic responses towards natural objects, the problem of nature’s own definition is often left aside. I want to concentrate on what image of nature those authors – intentionally or unintentionally – create. The comparison with practices of environmentally engaged art might bring a new light into this discussion.

Firstly, let’s have a look on how cognitivists (namely Carlson) use science to construct an opposition between aesthetic appreciation of art and nature. Carlson suggests that for correct aesthetic judgment of nature, it is inappropriate to use same way of appreciation as we have used in aesthetic judgment of art. Adapting aesthetic models known in art might be misleading for aesthetics of nature. Carlson names two art paradigms connected with aesthetic appreciation of nature. First is object model that focuses its aesthetic attention only on chosen objects, f.e. statues or still life. But, as he suggests, this approach can not be used in aesthetic valuation of nature, because natural objects are adherent to its environment and cannot be judged without this context. Second one Carlson calls landscape model and is analogous with what is in art represented by landscape painting. What is aesthetically appreciated here is a natural segment or prospect. This view might reduce natural environment to two-dimensional scene and inspire us to appreciate it as landscape painting – from specific point of view and with adequate distance.\(^{13}\) Carlson condemns those two models and proposes a third one, natural environment model, that does not result from the tradition of art, but rather uses scientific knowledge.

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for appropriate aesthetic appreciation. This knowledge substitutes the knowledge of art history which we need for correct valuation of artworks.

What is important in Carlson’s model is how narrow his concept of natural environment is and that it does not include the most common environments – semi-natural or agricultural ones, and thereby the only environments we can aesthetically judge are those purely natural. Budd supports this definition and goes even further – we can aesthetically appreciate only nature as nature, natural objects are those that stand in the contradiction to man-made objects, i.e. artifacts. We have to evaluate them separately even if they are situated in “mixed” environments. “All that follows from the fact that much of our natural environment displays the influence of humanity and that we are usually confronted by scenes that in various ways involve artifice is that the aesthetic appreciation of nature, if it is to be pure, must abstract from any design imposed on nature, especially a design imposed for artistic or aesthetic effect.”

This dichotomy between natural and artificial is given by the instruments of aesthetic recognition – scientific knowledge, because it defines the set of objects and environments that can be explored. But is this opposition in aesthetic appreciation of art and nature, or artificial and natural acceptable? Does it not bring more negatives than positives?

Let's search in the intersection of these two zones which in my opinion well represents environmentally engaged art. It consists of completely different type of aesthetic experience than Carlson’s object and landscape model. Environmentally engaged art results from the new tendencies in the 20th Century arts that are based on conceptual strategies, transdisciplinary collaboration and moral demands of man and nature relationship. The art purpose is to divert from art objects to natural objects. The process of art’s creation is as important as final art itself. Often, environments harmed by people become natural again, or natural environments remain natural thanks to artist's aim. We have here the environments, where artist enters in and leaves them in a ecologically better condition than they were before.

How shall we aesthetically appreciate those aesthetically changed environments? Are they considered to be human-made or natural? I believe that one of the artist's intention is to dispel the distinction between natural and artistic by unifying art and nature, or dematerializing art to focus on conservation or revitalization projects. To obtain this, environmentally engaged artists use scientific knowledge. They use it for the same purpose as Carlson does – as a basis for ethical judgments of nature, which are both in environmentally engaged art and in cognitive environmental aesthetics tightly connected with aesthetics. See how similarly, but even so from the different perspectives, incorporate

15 Some examples of restoration artists are Rahmani, Simpson or Johanson.
scientific knowledge to their concepts Carlson and one of the environmentally engaged artists, Patricia Johanson. Carlson: “[T]his [scientific] knowledge gives us the appropriate foci of aesthetic significance and the appropriate boundaries of the setting so that our experience becomes one of aesthetic appreciation.”

Johanson describes how she proceeded when she planned her art/restoration project:

“I began to do research on what different animals eat, because I knew that the right plants would attract wildlife. The project evolved from many different perspectives at once. I knew that the structures had to not only solve a host of environmental problems, but also had to be acceptable to scientists, engineers and city planners.”

Both of them use scientific knowledge as a source of correct comprehension of nature, and for both natural or closely natural environment is the most valuable. Carlson and Parsons, as well as environmentally engaged artists or theoreticians, stress the idea that nature is essentially beautiful. For aestheticians, it is important to educate perceiver how to fully comprehend this beauty, and for environmentally engaged artists it is important to point it out.

Through their art projects, environmentally engaged artists also try to show that for aesthetic appreciation of environment not only boundaries between art and nature are very subtle, but that it is also difficult to differentiate between natural and human environments as distinguished by Carlson. Landfill transformed to meadow, cleaned river or more sustainable forest can be result of artistic, activist or natural processes, and environments can metamorphose from one type to another in the course of time. It is rare to find pure natural environments as are described by Carlson or Budd, that is why it is difficult to use the type of aesthetic appreciation of nature that they have developed. From this point of view, reduction of knowledge only on the scientific one can be limiting in what we want to aesthetically judge. This fact noticed also Samantha Clark: „Carlson's highly objective, scientific environmental aesthetic would tend to exclude not only art but the built environment, the managed ‘semi-natural’ environment, and the social environment, which in reality are the environments most of us encounter on a daily basis. It would seem therefore that one set of limitations has been replaced with another.“

In Carlson's eyes, natural environments are those of unspoiled nature, the environment that we rarely come in contact with.

When Carlson talks about aesthetic appreciation of other types of environment, f.e. agricultural or human, he proposes other methods of valuation. Dealing with human environments, Carlson stresses

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the relationships that exist between human environments and people whose environment it is.\textsuperscript{19} When appreciating the agricultural environment, he emphasizes not only its ecological and functional relevance, but also social context of creation of these agricultural areas.\textsuperscript{20} The reason why he leaves those types of appreciation when talking about natural environments might be the reduction of aesthetic appreciation on scientific knowledge. What should be considered here, and, I believe, environmentally engaged art shows, is that no environment should be left without its social and historical context. Most of the natural environments were influenced by the human intervention, we can see social relations or politics behind them. Even if we decide to aesthetically appreciate truly wild and remote areas as natural parks, we should ask why are they left remote, untouched by humans. This can reveal human decisions and preferences hidden behind this remoteness which should not stand aside when considering its aesthetic qualities. Environmentally engaged art that includes public and scientists into its art projects creates social contexts behind the environments they transform, too. We must reveal this context if we want to correctly aesthetically appreciate the output that oscillates somewhere between art and nature, artificial and natural.

The challenges that these new artistic practices bring into cognitive environmental aesthetics call for revision of the separation of the natural environment’s aesthetic valuation from other types of aesthetic experiences. It shows that for aesthetic appreciation of both nature and art, we need to extend our aesthetic attention from scientifically defined categories to more complex ones. An example of such an attitude can be Berleant’s concept of environment as holistic surrounding that beside natural and human-made environments includes also humans, relations and networks. “[Environment] as distant place which we think to contemplate from afar, dissolved into a complex network of relationships, connections, and continuities of those psychological, social, and cultural conditions that describe my actions, my responses, my awareness, and that give shape and content to the very life that is mine...person and environment are continuous.”\textsuperscript{21} People are not separated from Berleant’s environment, but rather remain its integral parts.

It might be argued that this model is too inclusive and therefore benevolent in what to qualify as and object of aesthetic appreciation. But in the postmodern society where it is more and more difficult to designate borders between disciplines, art and everyday life, human-made and natural, an open aesthetic sensibility seems to be the best possibility of dealing with this interconnected universe.

Conclusion

In this paper, I dealt with the question how environmentally engaged art/science collaboration can challenge cognitive concepts of environmental aesthetics. I tried to show that cognitive aestheticians create dichotomy between artificial and natural because of the tools they have chosen for aesthetic appreciation of natural environments – knowledge of natural sciences. The set of information included in this types of knowledge presupposes the aesthetic limitation of objects or environments of natural character, even though our daily experience usually includes mixed environments where the distinction between natural and man-made is hardly noticeable. Through the practice of environmentally engaged art I tried to describe a shift in contemporary art practices that includes cooperation with other platforms, more conceptual art projects focused on art process, not final form, usage of scientific knowledge for obtaining ethically valuable result, and dominance of site's ecological value over the value of art. Artists question the borders between art and nature and propose more complex aesthetic appreciation of natural environments that would go beyond natural sciences comprehension and focus also on social, historical and relational contexts of the environments. This aesthetic experience asks for inclusion of people and their acts into the aesthetic response, and to stop differentiating between various types of environments. Example of such aesthetic concept might be that of Berleant who integrates environmental aesthetics into aesthetics of everyday life.

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