

Interview between Displayer and Armin Linke  
Karlsruhe, Germany, March 2008

D: When visitors to the installation *Phenotypes / Limited Forms* intervene, the photographs on the display are constantly rearranged. That can happen consciously, as, for example, when browsing the archive, when selecting and grouping the images, but also unintentionally when photographs that have been selected earlier are replaced. The actual production thus occurs at the site of presentation, in the process of exhibition: the selection the visitors make determines the images presented on the museum wall. Why is it important to you that the viewers give up their role as receptive consumers and become producers?

AL: The point is to setup a kind of game. In the installation, viewers have freedom in how they approach the images, but I want something more: involvement. I hope that the images will not simply be looked at passively but rather that viewers will ask questions: Why were these images taken and what are the locations? What is the production of an image in the first place? What is photography? They should become conscious of the images and the conditions of their production. I would like to set a process in motion that is not forced and didactic but rather results from a generosity.

D: This invitation to select images intervenes in the usual forms of presentation in a museum and hence with hierarchies within the context of art. What is the goal of revealing the selection processes in the context of a museum?

AL: Visitors generally do make a kind of selection when they go through an exhibition: they stand in front of one photograph for a longer time and just walk past another one. The space moves us. Here it is the other way around. You chose a place to work, a standpoint, and move the images in the space. The form of presentation is an attempt to make viewers experience how they walk through a museum and look at things. In a large museum, you can certainly see more than a thousand pictures. But the crucial thing is the relationship: if you have a thousand pictures in one space, rather than distributed throughout a museum, this spatial condensation makes that dimension tangible in the first place. The viewers can become aware that they are constantly making choices. At that moment, it is not about the pictures but about the entire system of the museum: coming to terms with works, finding your own way through the museum, the individual narration that results, your own collection, mapping, establishing your own mental map. These are all things that you are actually doing constantly,

but it only becomes clear in this condensation of time and space. When the audience curates its own sequence, it is an experiment, of course—not only with the visitors but also with the pictures. *Phenotypes / Limited Forms* frees up the pictures for use and as material. On the one hand, that is a challenge to their potential; on the other hand, it represents a risk when pictures are presented as working material. The crucial thing is really that the material can become a poetic product in the process.

It is important that people can come to terms with the photographs physically, that they can touch them. That is not really supposed to happen in a museum. No insurance company would insure the exhibition. At such times, the rules a museum has to follow can become problematic.

D: To what extent do you see a connection between participation—of the particular sort asserted in your installation—and the democratic potential of the distribution of images and information on the Internet?

AL: For me, *Phenotypes / Limited Forms* is a consequence of the Internet project *A Book on Demand*, which I developed for Utopia Station in Venice five years ago. You can use to compile a catalog from an archive of six thousand images. The digital offset printing technique it uses makes it possible to send it within two to three weeks with a price equal to the production costs. The book is a multiple of all the books in the project but is also a unique piece, since all of the books are distinct.

Over the past five years, thanks to iPhoto and Flickr, *A Book on Demand* has become the norm. My primary goal was to use a commercial Internet system for an artistic process. The distribution of information, images, and products on the Internet cannot be presented as something new, since everything already works that way. Whereas *A Book on Demand* was supposed to transform something physical for the Internet, what I wanted to do in *Phenotypes / Limited Forms* was to present the process sculpturally in the museum, to transform the Internet project into something physical.

D: The result is an artifact that converts the information distribution systems that have become reality on the Internet into a form for the museum.

AL: Perhaps what matters is not so much converting for the museum but rather reestablishing the contact with the analog, physical book, since the quality of the physical interaction is lost on the Internet. At the same time, the physical presentation has to have the open

character of the Internet, the possibilities to deal with abstract information that can be combined freely.

As a model installed physically in the museum, the function of *Phenotypes* corresponds almost exactly to what exists on the Internet. For the installation we tried to combine the interesting aspect of the physical presence and this aura of images with the flexibility and openness of the “digital realm.”

D: How was the installation developed for the physical space?

AL: The spatial installation was developed in collaboration with the group of students, Peter Hanappe, and Alex Rich. The decisions that led to this physical interface were conceived in cooperation and then tested using two prototypes. We tried to transfer the way the Internet functions and behavior patterns on the Web to a physical space in which very similar conditions exist, which are, however, specific to the space of a museum. The space should lead you intuitively to the mechanisms, so that a kind of choreography can result. If the room had been larger, for example, or if a different quantity of images had been used, it would not have worked. In the final draft for the exhibition, the same images were shown on four different levels: the physical image on the wall, the digital image on monitors in the tables, the image in the form of language in the projection of the title, which is kind of summary, and the image as reproduced image in the printed book. The book had to be produced cheaply enough that visitors could take it with them for free. Together with Alex Rich, we looked for a simple, cheap, but at the same time very reliable printing technology, and now we use thermal printers, like those used for admission tickets or plane tickets, so that the printing is completely automatic. Thanks to the simple technology, the catalogs can be produced in large numbers, and the black-and-white printing also makes for an interesting abstraction. We weren't interested in producing an object for consumption but in making it possible to produce a simple poetic object.

D: According to your home page, you are working on an archive that is constantly growing. The installation seems like a tool to get access to the images—that is, to rearrange them constantly and evaluate them yourself. What does the production of images mean to you with respect to the recombination of images? What is the relationship of the specific, selected image to the accessible archive?

AL: With my own archive, I work in a way very similar to the installation. It is a little like doing a book or an exhibition: I make photocopies of the images and

hang them on the wall, move them, take them away, add others, until I get a sequence that works. The installation is also like an editing room in film: you have cut the sequences of reels, hung them up, and then pieced them back together on the editing desk. Not much has changed about the photography itself, the moment when the picture is taken, since the advent of digital images. It is still the principle of the camera obscura. It doesn't matter whether I expose film or store data from a sensor on a chip: I gave the same kind of image that a fifteenth-century painting already had. But in the distribution and storage of the images, something has changed over the past five years: you can distribute images more quickly and access them differently. For that reason, it's not the moment of taking the picture that's important but rather coming to terms with the images and their dissemination. The picture no longer exists by itself but against the backdrop of other pictures, within the framework of their presentation and distribution. If you link individual pictures together, each of them obtains a new quality within its specific context; and then the audience's knowledge and imagination come in. It is interesting how the public puts together images to form cinematographic sequences—not just the way I would do it. What interest me are the connections, the narrations, which go beyond the individual photographs. For me, the result is a kind of fictional diary, and perhaps every visitor can invent his or her own by coming to terms with the images. I find it exciting to see how the identities connect.

D: As you mentioned earlier, you had already done the Internet-based work *A Book on Demand* before producing the *Phenotypes / Limited Forms* installation. What was your motivation to use the principle of *A Book on Demand* again for the latter work? What exactly distinguishes these two works from each other?

AL: On the Internet, you have software instruments whose functionality exceeds the possibilities of physical space, but there is, as we said, no physical engagement with the images like you have in an exhibition. The images can be appreciated in their full quality and color and the tiniest details examined. In the exhibition, the process of selection works differently; people are more intuitive when browsing and faster than in the Internet, since the physical interface is more direct.

The difference between these two works lies on the level of language. In the case of *A Book on Demand*, you have on the first page an alphabetical list of all the words that occur in the titles and descriptions of the words, like an index. You click on a word and

are shown pictures that are linked to these tags or keywords. For me, that is an absurd, poetic game, and you never know what will result. While defining selection criteria using tags works on the Internet, it cannot be reproduced in the physical world. So it was interesting for us to put the tagging at the end of the process. That is, essentially, not so different really, except that you don't search using a keyword but rather give a collection of images its own title. So the textual level is also an experiment. It functions above all on a mental level, on which two sequences produce a third image at the point of intersection.

D: *Phenotypes / Limited Forms* transfers only part of the authorship to the visitors — namely, the selection of images and titles. The artistic labor is not manifested as a finished object but as a site of production. What status does the written level created by the visitors have for you as opposed to your images?

AL: On the textual level, the tags produce a system in which various selections can be juxtaposed. The linking of various titles results in something like a haiku whose words take on a specific meaning because the collection titles shown refer to similar images. When you try to link images and text, something absurd always results, and it can be poetic and banal at the same time.

D: Ranking systems that list the number of page views and seemingly similar produces such as images or Internet pages are some of the basic building blocks of auction sites and search machines on the Web. Are the links between the images that visitors create stored in any way? What is done with the titles?

AL: So far, we have not addressed the topic of how to use the material. The experiment is a poetic experiment, so it does not necessarily have to have a purpose. At the moment, however, we are updating our concept for the Internet site and want to design a new navigation form for the site based on the physical presentation form.

D: If the installation of the image archive is understood as a genotype that represents the potential possibilities, the influence of the public produces a series of phenotypic results. Many visitors will access the thousand images and produce countless combinations over the course of the year that the exhibition *YOU\_ser* is open. Doesn't that make the images, despite the title, unlimited?

AL: The point of the title is seeing the installation as a living body. The sequences of the image on the wall of the exhibition change constantly, and the installation can take very many different forms. The presentation is subject to a constant process of change; it has not fixed form. In that sense, it is indeed unlimited. It mutates and evolves. The biological concept of the phenotype is a metaphor for the installation. If the images are then accepted as the genotype, however, then the results are limited, since the results are formal expressions of a series of possibilities that are determined by the initial material.

[www.displayer-hfg.de](http://www.displayer-hfg.de)

Translated into English by Steven Lindberg, Displayer

Interview between Displayer and Peter Hanappe  
Karlsruhe, Germany, February 2008

D: Could you explain why the project was interesting for you?

PH: There are two reasons why the project is interesting to me: I have always been interested in finding new ways to include the audience in the creative process. As a computer scientist, I am particularly fascinated by conceiving software tools that make this participation possible. I do not want to call this participation interactivity nor do I expect everyone to become creators. It's more about letting people contribute in a small but meaningful way and making the role they play in the evaluation of any work more explicit.

The other aspect concerns language or, more generally, 'meaning making'. It's an interesting research topic: it is about how you make sense of the things you experience and how you communicate this with others, through language, for example. These aspects can be found in the *Phenotypes / Limited Forms* installation on different levels.

D: Could you elaborate on the importance of language in *Phenotypes/Limited Forms*?

PH: First, a visitor flips through the archive, interpreting the photos, and constructing a sequence of photos. Then, she has to enter a title for her selection. This first part concerns a single person in front of the photos, trying to make sense of it, and explicitly labeling her interpretation.

The second aspect is the social element, which is essential for any language system. When you put all these book titles together and show them to everyone, you generate a shared pool of interpretations. In the installation, this shared space becomes apparent when the visitor walks out of the exhibition space and sees the titles of the books that are similar to hers projected on the wall. It introduces a sort of feedback about how other people interpret the photos. It is trying to exhibit the social part of language: the sharing and the negotiated meaning.

And third: In the installation we introduced the language part as a sort of variation on tagging. It is not really tagging as you can find on websites like flickr.com but it has a similar spirit.

D: This question is probably a bit more general about your scientific research. When you introduced Ikoru to us — a website, that you developed as a tool for

collaboratively tagging image collections — you gave us an overview of your research at Sony Computer Science Laboratory (Sony CSL). Could you tell us something about the background of your interest in tagging?

PH: Over the last ten years, Luc Steels (the director of Sony CSL) and his collaborators have been studying language. They consider language as a dynamic, never-ending, evolving process in which agents (that's the term we use) have to conceptualize the world they perceive, find the words to describe what they see, and then communicate that to another agent. This agent in turn has to interpret the description and relate it to the perceived reality. Luc has defined a number of 'language games' in which the agents strive to increase the success of their communication with others.

The nice thing is that it's not just a theoretical framework but that it was verified using software models that run on robots in a real world setting. So Sony CSL has some very strong roots in the study of the evolution of language.

Then tagging became very popular a couple of years ago through Web sites like flickr.com and del.icio.us. Tagging is a very simple technique to annotate resources (photos, music files, ...) on the Web. It simply consists of associating keywords, called tags, with photos on the Web. When a lot of people start sharing their photos and their tags, some interesting phenomenon start to happen: people start to align their descriptions, there's competition between synonyms, ambiguity is resolved by introducing new tags, and so on. What we saw was that tagging was a real world example of Luc's ideas on language. So we started to study tagging because we wanted to know if it has the same dynamics and properties as the 'naming games' that Sony CSL had been working on. In fact, we're doing this work as part of a European research project, called *TAGora*, which focuses on tagging.

When we met with Armin, he had already done *A Book on Demand* as an internet-based project. We started discussing tagging and decided that it could be an interesting additional layer to this project. For us, it was an opportunity to study tagging in a well-defined context, and to work with a semantically very rich photo collection. So, we set up an experiment in Venice, with the students of the Università Iuav di Venezia.

Out of the discussions at the end of the project came the desire to translate the tagging and book-

on-demand concepts to a physical space. For us, it was partly an attempt to extend tagging, take it off the Internet and see if it's a viable technique in the physical world. Another question we were interested in was whether we could observe distinct strategies that people use to make a selection of photos. We have recorded a lot of data from the installation, but we still have to analyze it to see what we can learn from it.

D: A lot of people nowadays take something physical and bring it to the web. Here we took something that was already existing on the web and you had for example your *Ikoru* Software already developed and we tried to transform it to something physical, where somehow all the technical parts and the design had to be invisible so that people forget everything about the complicated procedures, the bureaucracy and all the technology and try to be very intuitive. How was the process for you from the virtual existence of the Internet software to the spatial, physical installation in the museum? Is the software transmuted into a public choreography?

PH: The translation of the installation from the Web to the physical space went easier than I would have expected at the beginning. The resulting physical installation is as interesting, if not more interesting, than the Web based one. Both work very well. My guess is that, vice versa, transferring a physical installation to something on the Web wouldn't work so well.

The translation process progressed very well during the many discussions we had at the HfG. It was not a very conceptual or abstract process. It was really through discussion and by trying things out that the installation found its shape. It is a bit like defining a choreography, or preparing a performance stage. The installation may look fairly obvious, now. However, when we started it wasn't so clear how we would do it.

D: Is it kind of software sculpture?

PH: I like the idea of a software sculpture!

D: In an interview about the role that the museum should play in 21st Century, Peter Weibel talked about the type of artist he wants to work with: 'everybody exchanges ideas that can be very quickly realized through co-operation. I love software specialists, who are neither engineers nor artists. That is the prototype of the new media artist.' (Der Tagesspiegel, 01/12/2000). When such specialists are the artists of the future, the software code will be the auratic object as the sole original core of an artwork.

PH: It sounds very nice! I don't want to start defining categories but there are a lot of software developers who write code as their job and nothing more. (sometimes they're called 'code monkeys'). However, it is also possible to use software programming to explore abstract ideas and concepts. This is a much more passionate activity. In the end, however, software is only a tool that allows us to do this exploration. It is another medium, another language, or another technique, I suppose. The problem with software is that you can't hand out the code to others like you would with a written text. So you have to find some form to show the significance of the code. That's not an easy task.

D: Going back to the language aspect in *Phenotypes / Limited Forms* for a second: Firstly, there was the website; in the exhibition at ZKM we can enter a kind of spatial manifestation of it, thus, there is a transfer of the user mechanics from a virtual space into a museum's space. We can find here different types of collectivity, also regarding the language: there is a projection of the given tags/titles, which you see when you walk out of the installation. You see other people's titles of their selections — this is a linguistic manifestation that again can trigger mental images. How are the layers of text and images connected in the projection?

PH: When you walk out of the installation's room you see this haiku (that is what we called it) projected on the wall. It shows all the titles of the books that are related to the book you just made. 'Related' means that they share common images. So this projection makes the visitor aware that the book she just made is strongly related to what other people before her have made. It's a way to close the feedback loop and to introduce the social aspect of meaning making and interpretation. We had to make a couple of choices when we created the physical installation. We decided to show the related books only when you walk out of the installation and limit the projection to the book titles. As a result, the visitor does not see the connected images. I think this is something we could still work on. It would be nice to introduce the feedback of what you and other people are doing at an earlier stage into the installation, not only when you walk out. And perhaps not only give feedback about the title but also about the images. In the current installation, the language aspect is not apparent when the people are browsing through the images. It's not until they have made their selection and are about to print their book that the language element comes in. I would like to find a simple way to introduce this feedback earlier so that people think more about the selection they're making and how it may relate to

what other people have done before them.

D: What further steps could the installation take?

Armin mentioned that it could develop into an internet based form again. Can you say something about such a retransfer?

PH: Now on the website you have a few more possibilities, because we have more flexibility to present information in different ways on different Web pages. Maybe it would be nice to put more possibilities into the physical installation while keeping the simplicity, of course.

[www.displayer-hfg.de](http://www.displayer-hfg.de)