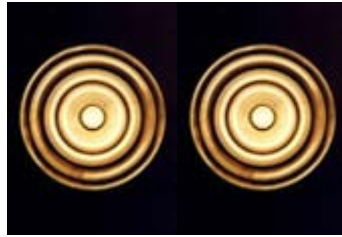


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# Hans Dieter Huber

## About the collection, preservation and presentation of bits and bytes

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First Installation: 30.3.02 Last Update: 30.3.02

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Lecture given at the "under construction: art.net.dortmund.de" conference, 19 May 2001

An entire body of artistic work that was based on Internet technology and its technological conditions and possibilities were created with the development of the WWW at the end of 1993/early 1994. Just as the Internet challenged our society, art that came into being with the Internet and especially the WWW, also presented new challenges to the artists, the critics, art history, aesthetics, museology and restoration. Defined by the conditions on the Internet, a new type of artist came into being. Since the main function of the Internet is enabling local uncommitted and non-hierarchical communication, the artists and artist groups, who were especially interested in non-hierarchical and remote forms of communication in an artistic or activist context, quickly made this medium their own. Artistic mailbox systems such as The Thing, which was founded in 1991 in New York, the digital city of Amsterdam (Jan. 1994), the international city of Berlin, and Ljudmila Lab in Ljubljana were just some of the systems that belong to this early group of artistic/activist activities with the new media. Some of these artists had previously made some videos, but not all of them. For example, Philip Pocock worked together with John Zinsser to found the Journal of Contemporary Art in New York in 1988. For the first time in the long history of art, you no longer had to be in a specific place in order to be able to view original work of art. The original work came to your home on your computer screen. Art lovers could view works from Canada, America, Slovenia, Spain or the Netherlands pretty much for free in the heated comfort of their own home at the click of a mouse. For the first time, the regional and temporal restrictions of exhibitions, in other words their "site specificity," no longer played a role and could thus be questioned. A radical challenge for aesthetics. So, no one was surprised when Vuk Cosic made the following statement: "We don't need any net.art exhibits, because the art is already being exhibited – on the Internet". This created challenging new questions about contextualisation and the integration of works that are location independent, within the locational and time context of an established name. First and foremost, net.art works do not need a gallery owner, an art society, a curator or an art critic to be presented to the public. The

distribution channels ran and run predominantly outside of the traditional, established and institutionally predefined art system.

Nevertheless, the net.art artists are confronted with this highly efficient art system, which they either regarded with a mixture of disinterest, mistrust and desire or - as political activists – completely rejected it, whilst still continuing to woo the system for recognition. Compared to how quickly the Internet developed, it took a very long time for the art system to finally realise that a new medium had been established. This process of realisation has not yet been concluded to date. Art critics adjusted the quickest to these new art forms and undertook the first important anchoring and contextualisation steps through the use of their own specific language. Critics such as Tilmann Baumgärtel, Josephine Bosma or Matthew Mirapaul accompanied the new visual art form from the very beginning with their early interviews, articles and commentaries. It is interesting to note here that, from a historical standpoint, the critics were ahead of the curators. While, in the traditional exhibition situation and context the work of the critic begins once the curators have done their work, the opposite is true in the area of net.art. The critics and media theorists banished the curators from the ancestral pole position to second place. Which changes will take place in the appreciation of art in the future remains to be seen.

Art history did even worse. Except for a few exceptions, hardly any notable contributions, studies or theoretical-methodical discourse exist in the world of art history. One or two young art historians have written their master's theses on the subject, and these are very important and promising works on the early reflection history of net.art, but professional art historians have not acknowledged this area very much.

Even the museums are having a hard time dealing with this new medium. It wasn't until two years ago that the first museums in the U.S. recognised the medium as being trendy and that having a hip net.art extension on their museums' Web server gave them a definitive edge over the competition. It is just like stock options or junk bonds. When you buy them you are merely buying the hope or the option that maybe someday they might be worth something. This trend is similar. Museums are only buying the hope or option that they may one day possess a historical work of art, an electronic epoch or transitional period. Benjamin Weil was one of the first people on the Internet to give artists like Jenny Holzer, Julia Scher, Doug Aitken and many others the opportunity, along with the relevant technological knowledge, to create outstanding Net-specific works on his platform, *ada'web*, back in February 1995. The Walker Art Center in Minneapolis, under the direction of media curator Steve Dietz, has done the most convincing curatorial work in this area so far. Steve Dietz staged the first curated exhibition on net.art in 1998 and his consistent theoretical as well as curatorial accurateness convinces audiences even today. Other museums such as the Guggenheim Museum in New York or San Francisco's MoMa are following his example.

With the exception of Le Fresnois in Lille, France and ZKM in Karlsruhe, Germany (which finally took on the history, theory and aesthetics of telecommunications media under the direction of Peter Weibel), German and European museums have pretty much slept through this medium's development. There are no specialised curators for media art nor has any fundamental research been done on issues regarding the preservation, conservation, or restoration of digital information. The museum as a visual presentation area and catalysing institution of sophisticated leisure activities for a sophisticated audience who feel

traditional theme parks are too primitive has been too blinded by the short-term successes of the media due to its ideology of a spectacle to be able to devote itself in depth to the long-term questions and perspectives.

And likewise, one can hardly speak of an aesthetic theory of net.art. We still don't have a convincing analyses of the aesthetic functions of Web sites that are unequivocally artistic works. A history of Web design does not exist, although the Internet is without a doubt a significant economic product of the New Economy and there is no aesthetic theory of net.art. The first skeins of a discussion have been voiced in timid attempts over the past one or two years like the first tender buds of spring. As an artist, theorist and exhibition organiser, Peter Weibel has for decades been one of the first and foremost people who have pointed out the new and changing dimensions involved in exhibiting under the conditions of the Internet. His distinction between a local society and a remote society already reflects the first consequences of the telecommunication society and the role of local, uncommitted art forms in this globalised form of society.

You can't really talk about art collectors and gallery owners in connection with net.art yet. I know of a couple people who have tried to sell net.art over the Internet, but there really isn't much of a market for this medium to date. A market is the place where supply and demand meets. There has been a good supply of net.art in the past six years, but a demand for it does not exist yet. A market is created when things are collected and sold, and as long as net.art is not collected, there will not be a market for it and consequently there will be no gallery owners to act as agents and set prices for the buyers and the artists.

So, if these achievements reflect the current status, then the question arises of how our society is currently dealing with this art. You can even paraphrase this question by asking how our society would like to deal with it, how they could deal with it or even more directly how should they deal with it.

First of all, net.art must first be collected to be preserved for posterity. When no one collects things, those things will not be saved. But what should people collect, how should it be collected and why? In my opinion, the point is that people should realise that net.art is an artistic medium that has a history like all other artistic mediums. Therefore I suggest that we start seeing net.art in a historical context, because as an art form it has already reached its peak. I am not differentiating here between, for example, an early anonymous 15th century woodcuts, a drawing by Michelangelo, Marcantonio Raimondi's copperplate engravings, the early lithographs by Alois Senefelder, August Stringberg's celestographs, the first videotapes by Nam June Paik and net.art works. You may very well use an historical approach to observe, describe and contextualise works of art that rely on the Internet or the various individual types of media (of which the Internet is comprised) to come up with their form. However, a great deal of historic reconditioning and contextualising has to be done first. We should therefore start historicising net.art, because it is no longer avant-garde, but is instead already part of the past. The net.art artist, Vuk Cosic, once told me one night in a rather melancholic undertone, "I am history - ich bin Geschichte," during a taxi ride at 100 km an hour through the dark streets of Ljubljana, and he is right. We can already regard net.art as a very special, extremely limited, historical artistic movement that took place during the second half of the 1990s.

An exact and sound research of the historic sources is essential for a differentiated understanding of history, creates the foundation of truth or lies upon which we act. You yourself have control as to whether you act on an insecure foundations of false information, poorly researched contexts and

superficial buzzword theory in order to become a virtual star in some sub-cultural sub-scene that burns out as quickly as it began or whether we are finally able to thoroughly and calmly investigate the historical context, despite all the hectic and pressure of deadlines. I beg you to not only think about the cyber-artists and curators who implement artistic or curatorial projects within the boundaries of a time limit, but also to award a research scholarship to a young art historian so that she/he can conduct historical research into specific aspects of net.art. I think that this is even more important than creating a new, subsidised artist-in-residence program. While we are on one hand awaiting a glut of curators, it is becoming more and more clear that we are also facing a dramatic shortage of scientists due to the lack of government funding for the arts and humanities over the last 10 to 15 years. There's a definite lack of well-trained young people in this area.

Like all other mediums that were ever created, net.art also has its medium specific, artistic, and social roots and associations. We need to make these structural inter-linking and operational conclusions in historical research and reconstruction more available to a wider range of people. Precise historical research can be the foundation of a mediation role for net.art. We are preparing the foundations for the historic contextualisation and linguistic mediation of these works by interpreting individual net.artworks in regards to aesthetics as well as the history of art, media and civilisation.

What should we collect, how should we collect it and, above all, why should we collect something? Let's start with the last question. We can go into any local history, art or science museum, and what we admire there are individual peak performances or works such as the creation of the Mona Lisa, Jacquard's automatic loom, the world's first gas-powered carriage or the first satellite that ever circled the earth. It helps us to understand our cultural identity in our social life on this planet and the historical situation in which we live in better. It is obvious to us that every construction in a museum represents an ideological interpretation of history, but the problem is that we can't offer an independent and neutral representation of net.art. Every representation has to be argued from a specific ideological perspective, and this perspective is vulnerable to assault from another ideological perspective. The objects of a materialistic culture are very important for the aesthetic formulation of a cultural identity. Which aspects of cultural identity would and could be formulated from the collection, exhibition and mediation of net.art in Dortmund? I will leave this question unanswered so that everyone here can think about it and try to come up with his or her own answer.

Let us once again consider the curatorial care and preservation of net.art works. John Ippolito outlined four possible steps for the conservation of contemporary art (storage, emulation, migration and re-interpretation) in his lecture at the Variable Media Conference in the Guggenheim Museum in New York on 31 March 2001. The previous concepts used by restaurateurs to preserve digital information only included two methods - migration and emulation.

#### Migration

The traditional approach is to achieve long-term availability of digital information through continuous migration. The goal of migration is to ensure that image or text files (and its contextual and development information) remain available and readable over longer periods of time using contemporary hardware and software. From a technological standpoint, this can be achieved by refreshing the signals and continuously adapting the recording formats as well as

adapting the continually changing software. Thus ensuring that the information and related functions remain accessible.

### Emulation

Jeff Rothenberg suggested the emulation concept of long-term availability of digital data as an alternative to the migration concept (1955), which he felt it was too uncertain. In principle, the concept is to recreate the functionality of the system in which it was conceived, in other words a hardware and operating system that no longer exists should be emulated in such a way that the digital information can be made more accessible and obtained in its original software environment and therefore in its original functionality. In practice, it is necessary to combine digital conversion forms, context information, application software and operating systems with the relevant documentation, regularly update them and stabilise them on conventional information carriers.

You can also approach the question of preservation in a more general and less technical way (for example using an installation by Dan Graham). Is it important that the material carrier of an artistic work remains identical? Can the material carriers also be reproduced from other materials? There are works in which it is very important that the original materials are used, and the original can therefore be differentiated from a reproduction or a copy. But there are also numerous art works from the 20th century in which the material carrier or parts of them can be replaced and it still has the same effect on the viewer as if it were the original work. I feel the installations by Dan Graham or Bruce Nauman are good examples of this. Whether the sound isolating one-way mirror is the exact mirror that Dan Graham chose to use for his work in 1974 or whether it is one whose sound insulation values and reflection values are similar to those of the original mirror is not crucial to the aesthetic experience of this work. What is important is that the aesthetic experience can be conveyed just as the artist intended. This is what Benjamin Weil, Media Curator at San Francisco's MoMa meant when he spoke of the "conservation of artistic intent." Well, how can you conserve intentions? That is an interesting question for an analytically trained philosopher.

Let us focus on the interim result. There are works where the originality of the material carrier is crucial to the aesthetic experience and authenticity of the work. These are works that are based on an ideology of authenticity to the greatest possible extent and urgently need people to believe this ideology for it to function aesthetically. Works that do not operate based on this ideology of authenticity can translate the work from its material carrier to alternative mediums and the aesthetic experience of the work still remains intact. I consider the works at net.art to belong to this group. Moreover, all works that are in some way based on some kind of notes also belong to this group, be it musical compositions, dance choreography, instructions on how to create Sol Lewitt's wall drawings, Felix Gonzalez-Torres' stacks or HTML script. They are based on certain more or less specifically described or syntactically defined notation that can be interpreted through its exhibition, presentation or performance. The browser that displays the HTML script of a net.art work on a computer monitor represents such a presentation or a location- or time-specific interpretation of net.art. The browser is so to speak the conductor of an entire symphony orchestra that more or less brings to life a dead notes. Since net.art changes depending on the browser interface used: the surface and the source code, or to use terms by Jodi between the surface and the underground, the appearance of net.art is interchangeable and varied. The decisive factor is the constant HTML script, which experiences and will experience various, historical and location-specific interpretations and performances.

However, there are two new factors in all of these things: the wide distribution and the conservation of the artistic intent. People need to change their attitude and realise that the best way to preserve Internet-based artworks is to collect them. The decisive parameters of a work must be determined with the help of the artist or artists. The artist (together with the curator, the art historian or the restaurateur) must set down in interviews, texts, sketches and instruction as exact a description of the parameters must be defined to ensure that each work will also function aesthetically in the future, long after all of those involved have left this world. In other words, the artist should give some thought to the manner and methods of the conservation, preservation and reinterpretation of his or her artistic work from the very beginning using documentation or scripts or with exact instructions. He or she should clearly and explicitly vocalise or formulate what the central categories or parameters are that are essential to the preservation of the aesthetic functions of his or her work and which elements, relations and parameters can be variable. The artist needs a partner who can help determine these parameters. The question is who this partner is and what kind of training does he or she need to be able to be this partner?

As a historian, I am used to thinking in large spans of time. Let's use Michelangelo's Delphic Sybille as an example. We are very lucky that the paper has survived over the past 500 years, because it could have just as easily been lost, burned or accidentally thrown away. The paper could have contained acids that could have destroyed the cell structure of the surface fibres. If Michelangelo had worked with ferro-gallic ink like the kind with which Johann Sebastian Bach wrote his scores or worked with cheap Indian ink that was sensitive to light like Vincent van Gogh, then the paper would no longer exist today. Human error is one of the main reasons we have lost so many historic items. The historical relevance of Michelangelo's drawing of the Achilles' heel definitely lies in the fact that only one copy exists in all the world. This is also the case for the works at net.art. They often only available as one file on a server. Sure, there may be backup copies somewhere, either are at home or at the artist's ISP or at Alexa in San Francisco. Each of us knows just how quickly and irrevocably a directory or a file can disappear from our planet forever and ever. You don't even need a wastepaper basket for this.

But let's jump 500 years into the future. What would we like to preserve of our current thoughts, artworks and cultural achievements from the areas of net.art for the year 2501? Which medium is best suited for such a preservation or is most likely to be available and be able to be understood 500 years from now? Digital, computer-based works can be eliminated here completely. If even the Nixdorf Museum in Paderborn has stopped saving software and only displays plastic computer housing in its cabinets as material design objects, then we need to give some critical thought about how we want to preserve net.art for posterity. In the case of digital conservation plus emulation, we are talking about maybe a maximum availability of 10-20 years maximum, but not more than 500.

Thoughts about using open source applications are also just a passing fancy. They do not represent a real solution to the problem. You could be somewhat cool and cynical and argue that, well, some of the artwork of net.art is not really that good anyway, so it doesn't really matter. But as a historian and scientist I have to intervene and say that we could all be wrong, because historical importance is subject to constant revision. This can only happen through contextualisation. The relevancy of a work can inevitably change due to changes and shifts of historic context. Since our society changes so constantly and rapidly, the shift in relevancy is equally constant and rapid. The aesthetic and historic relevancy of a work of art is in no way an absolute. On the contrary, the likelihood that we completely assess and value these works due to our temporal

proximity and personal involvement in net.art is relatively high. A glance at the history of art proves the point.

Let's take a look at the chances different media have of stood the test of time. The odds of an oil painting surviving are small, since only one copy can exist on this earth. The same is true for a stone or wood sculpture. Even a building is not immune to being destroyed or becoming lost: consider the chances of it being torn down or destroyed by an earthquake or bombs. The chances that one copy of a bronze sculpture will survive are higher depending on how many castings were made. A photographic image is in an even better position. Theoretically up to 40 copies of the image could be floating about the globe. You probably have an idea on where I am going with this, namely wide and simultaneous distribution to as many different locations as possible. High scale distribution is the third option for preservation. The medium of a book is the most suitable for this. The oldest printed book is the Gutenberg bible from 1450, of which at least 140 copies were printed on paper and 40 copies were printed on parchment. Forty-nine copies of the paper edition still exist today, after over 550 years, while only 4 parchment copies have been preserved. In other words, if you want to preserve the artistic works at net.art for posterity for a period of 500 years you should think about the reliable documentation methods mentioned above.

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