

THE FUTURE IS NOW!: THEN WHAT?

An exploration of the effects of time on UBERMORGEN's *Chinese Gold*, and some suggestions on how to compose with them by Julie Boschat Thorez

Introduction

In June 2017 I was invited by Gaby Wijers and Sanneke Huisman from LIMA to be in charge of an UBERMORGEN case study in the context of a new series of events called Cultural Matter. The program's focus was on both the art historical/cultural and technical/material importance of a selection of born-digital artworks. Cultural Matter was conceived as a series of six exhibitions in which each time one artist's work would be selected to serve as a starting point for further discussion on the materiality of digital art pieces and their contextualisation within a wider art historical context. My tasks involved the research of strategies for the preservation, re-exhibition and distribution of a work from UBERMORGEN. At the same time, LIMA was in the process of developing the project Arthost, a research into methodologies, requirements and architecture for the preservation of digital art. While my case study research progressed, it also contributed to the elaboration of Arthost.

UBERMORGEN was initiated in 1999 by Livlx and Hans Bernhard. With their projects they create alternative narratives, often using dark humour, reflecting on information consumption and social phenomenons within a networked society. Some famous works include *Google Will Eat Itself* (2005, in collaboration with Alessandro Ludovico and Paolo Cirio), a project in which Google's own advertising revenue were reinvested in shares in the company, and *Vote-Auction* (2000), a media performance initiated through a false website in which Americans could put up their presidential election votes for auction and which led to an interview with CNN.

To determine which piece would constitute the best case study Sanneke Huisman and I reviewed a list of works recently sent into LIMA by UBERMORGEN. Together, we came to the conclusion that *Chinese Gold* (2006-), a partly fictive investigation of the process of generating online currency within the online game *World of Warcraft*, would be the best candidate. The project had had the time to mature enough while still being formally complex and hard to characterise. When we first watched the video, we were unsure if the video itself constituted the work, an excerpt or a document of the piece. After preliminary research, it seemed that what we had been watching was just the video element of a whole cluster of productions showing a player making use of a shortcut for generating extra in-game currency. Overall, the project seemed representative of the kinds of challenges that UBERMORGEN's body of work will face with regards to both its distribution and preservation: it is a dense research project in which several productions had been developed and articulated around a narrative elaborated from facts.

Several aspects of *Chinese Gold* had to be addressed by a preservation strategy to ensure the future distribution and exhibition of the artwork: the conceptual nature of the work required deeper insight into the artists' intentions and process; the online context, crucial to its development, constitutes an ever-growing source of information on the work and its theme; the exhibition history and the artists' decisions reveal a deliberate upkeep of uncertainty with regards to the work's evolution; and lastly, the work is very much subject to the influence of third parties, who have somehow contributed to the creation of core material of the work (found material), or influenced its becoming, through curatorial decisions or commentary.

My background is not in archiving or preservation. I am an artist and researcher with an interest in digital archives, networks, mapping and scientific methodologies that employ digital technologies. My approach is in dialogue with my practice, in which information structuring and relations created across digital media are a core focus. A consequence of this is that I have an interest in databases, documentation, transmission and the materialisation of contingent relations which have influenced a work of art. This is the context of my mindset during my exploration of UBERMORGEN's work. The following text exposes my experience, thoughts and approach to preserving *Chinese Gold* as a stranger from traditional institutional practices.

In what follows I first introduce my research on the artwork itself, by describing my search for information through the online links provided by the artists, the exhibition history of the work, and what the artists' archive revealed about its process and development. In the second part, I discuss preservation experiments and strategies. I depart from this focus on documentation to centre on interviews and information scraping, discuss collaboration and knowledge management through software, and examine

the effects of institutional archival systems architecture on an artwork that may escape traditional categorisations.

Part 1 – Understanding Chinese Gold

Chinese Gold online

- exploring the online presence and context of the work

My first encounter with UBERMORGEN's Chinese Gold was a link to a video called *Chinese Gold(Boom)*, hosted on the online platform Vimeo in 2015, alongside which I found a text, some keywords, a link to the project and an other one to images. The description made clear that the video provided some insight into a practice called “Gold mining”, which appeared to be particularly developed in China, and consists in the production of in-game currency within the video game World of Warcraft (WoW), with the aim of “real-life” financial trade. The video was a screen recording of the game from the perspective of a user in the act of mining. Not following any specific game narrative, the player endlessly teleports their character to the exact same World of Warcraft location which allowed them to keep accumulating in-game money appearing at this spot. The link available in the video description took me to a page made by the artists about the project, that I'm referring to here as the Chinese Gold project page¹, and which became my entry point into the artwork (Fig.1) According to the URL bar the page was first uploaded in 2007. Above a short text about gold mining setting the tone for this project, I found a blue picture depicting two men, of Asian descent, staring at their computer monitors within a space resembling a cyber café. A series of links was listed under the text. The first one led me to a website called Bank of Wow, with the caption “Guarantee: All Gold in our BANK are Made Totally Manually!”. The currency trading website's design was very old fashioned, yet functional. A flickering banner claimed it to be a “WOW Gold Professional Store”.


Back to the project page I then found a link to number of different series of photos by the artists listed as the *Belgrad session*, the *Blue series*, *MTV series 3* and *MTV series 4*. The first series looked a bit blurry and depicted something happening within the game. The *Blue series* showed captures from the game and some moments in the life of the Chinese players working, eating and sleeping in sweatshops. All images were unified with a dark blue overlay. The last two series functioned the same way. However, the lack of unifying overlay for these ones made the separation between what happened in the game and the precarious living conditions in the sweatshop very striking.

UBERMORGEN.COM | CHINESE GOLD - Mozilla Firefox

File Edit View History Bookmarks Tools Help

UBERMORGEN.COM | CH x +

www.ubermorgen.com/2007/projects/China



Untitled 4, 60x40cm, Lambda Print on Dibon in Shadowbox, Edition of 5 + 1 a.p., Courtesy Fabio Paris Art Gallery Brescia, Gallery [DAM] Berlin

In China there are over 2000 Online-Gaming Workshops that hire people (over 500.000) to play online games such as World of Warcraft (WoW) day and night. The gaming workers produce in-game currency, equipments, and whole characters that are sold to American and European Gamers via Ebay. These people are called „Chinese Gold Farmers“ and their practice is building up credits and online value through the monotonous repetition of basic tasks in online games such as World of Warcraft. The trade in virtual assets is very real, and outside the control of the games' makers. Millions of gamers around the world are prepared to pay real money for such online credits, which they can use to progress in the online games. China is the factory of virtual goods. The computers are never turned off. The future is now!

In Warcraft, it's the currency itself that's being overproduced, not just any product. That means it'll take more units of that currency to exchange for any product. Inflation. The price of everything goes up. Everything you worked so hard to save up suddenly becomes worth so much less. The Warcraft economy appears to be on the lip of this plunge and administrators are taking steps to curb inflation. When they find a career farmer, they ban the character. Now the farming company has to re-buy the game and set up a new account. This makes the process of creating these goods overseas more expensive, and functions similar to a tariff (which is a protective tax). There is a balance, which in the real world, the Treasury, and the Federal Reserve, and International Organizations try to maintain. And by maintain, I mean getting as much cheap shit for themselves as possible without throwing the system completely out of whack. (In the finance industry, human rights is a footnote, if anything.) What lies ahead for the Warcraft economy? Let's keep watching it in the future, let's keep watching chinese prisons, let's keep watching the structurally weak areas of the USA.

Keywords: Metallic - Alternative Energy Sources - Trade Agreements - Ghostbuster, Roaming - Steel, sugar and services - Consumer-made content and value - 1500 Gold \$ 131.99 - close Internet cafés in Beijing to prevent the spread of SARS - Modified seeds/crop, hydrogen - The Myspace angle - Media Hacking - prepaid Pass9 - a group of WOW players in China committed mass suicide, virtual die-ins - Taxes, copyright and Freedom of Speech, in game civil rights - Unions fighting Louis Vuitton living oceanfront - Boomtimes in Kuala Lumpur - Kaogma Festival - Megaphone diplomacy - New cartoon uproar

It mixes up the real "virtual" (game) with the virtually "real" (€)

Bank of WoW
<http://www.bankofwow.com>
 Guarantee: All Gold in our BANK are Made Totally Manually!

Photo Series

Belgrad Session 1 - 8 (*)
 Blue Series, Untitled 1 - 7 (*)
 MTV Series 3, No. 35, 45, 51, 52, 53, 55 (*)
 MTV Series 4, No. 33, 34, 41, 47, 48, 54 (*)

Videos

Chinese Gold Farmers Preview (*)
 UBERMORGEN MACHINIMA NO. 0 (* / **)

Text

M. Bittanti, D. Quaranta (editors), GameScenes. Art in the Age of Videogames, Milan, Johan & Levi 2006.
 Hardcover, 454 pages, 25 x 25 cm, 200+ hi-res illustrations, available from October 2006. ([pdf](#) / [html](#))

WMMNA - We-make-money-not-art Interview with Ge Jin
 Home Ludens Ludens - Gold Farmers

Fig. 1.1 - Chinese Gold project webpage

The next links on the *Chinese Gold* project page led me to some videos. The first was a YouTube video uploaded in 2006 by Ge Jin entitled "*Chinese Gold Farmers Preview*". The comments section had become an Internet trolls playground. Wormwood5073 compared their lives to the those of some "*fucking insects*" while an other user wished "*all these yellow men to die in fire*". Other people made observations about the precarious nature of the job: "*must suck to be an mmo gold farmer now, as even that's getting automated nowadays... robots indeed taking all of our jobs lol*" said freecomkcf. On the initial page, under the link to this youtube video, I found two other links presented under the title "UBERMORGEN MACHINIMA NO. 0": first a dead Youtube link, then a functional Vimeo one. The video looked familiar but with a twist: it was the same screen capture of a player's character mining within *World of Warcraft*, however I could recognize the Windows XP launch bar at the bottom. This one was called *Chinese Gold (Focus)* and was uploaded 6 years ago. I went back to the *Chinese Gold (Boom)* video and saw that the "reframed" version was uploaded 2 years ago. The video had the same description text and links, yet it was an older version. (Fig. 1.2)

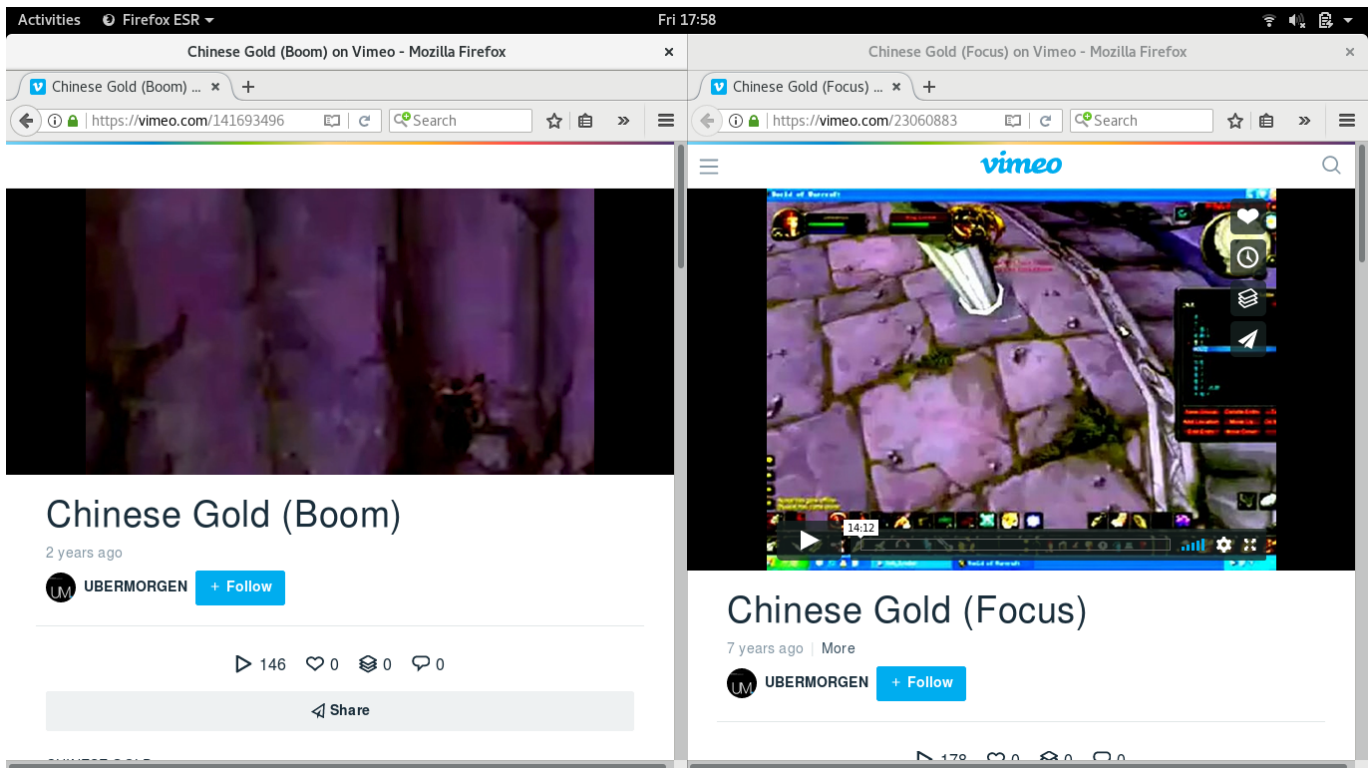


Fig. 1.2 – The two versions of Chinese Gold's Machinima on Vimeo

The section of the *Chinese Gold* project page dedicated to texts contained an essay by curator Domenico Quaranta, published in 2006 in a book called *Art in the Age of Videogames*. Quaranta's essay contextualised the project within the artists' overall practice and explained that the project “documents these videogame sweatshops and the life of these ‘Chinese Gold Farmers’, with the icons of WoW figuring amidst chain-smoking, junk food and doss-house living conditions.” It also clarified what is happening in the blurry turquoise imagery of the *Belgrad* series of photos consisting of screenshots produced over the course of a game session in Serbia, where players from “the other side of the above-described economy”, or potential WoW gold buyers, “waste their day in exhausting game session”. The second link is a 2008 interview of Ge Jin, the man who uploaded the YouTube video watched earlier, published on Régine Debatty's blog *we-make-money-not-art.com*. Under the title “magazine contribution”, I found some sort of PDF ad for the project which was submitted to the performance art publication *Maska*. The document contained an introduction, keywords and technical description of the works and the internet address of the artists' website. All the text was formatted in a bright gothic yellow font with a “0.0.255 blue” background colour.

In the exhibitions section of the project page, the first link led me to a page bearing the message “Stran ne obstaja.”, which is Slovenian for “The page does not exist.” according to Google Translate. The second link took me to an unconventional online documentation of a show called “Beijing, fields of vision”, which took place in 2006 in China. The documentation shows that the presentation included some pictures from the Blue photo series cut out and pasted on a massive wall alongside other artists' artworks selected for the show. The last exhibition mentioned, at REX, a cultural centre in Serbia, had no information available. Following the list of exhibitions a list of partners was offered, but none was really useful. Apart from a link to an article from the German Newspaper *the Spiegel*, all the links at the bottom of the page were dead, which is not surprising considering that the page was last updated in 2011. (Fig. 1.3)

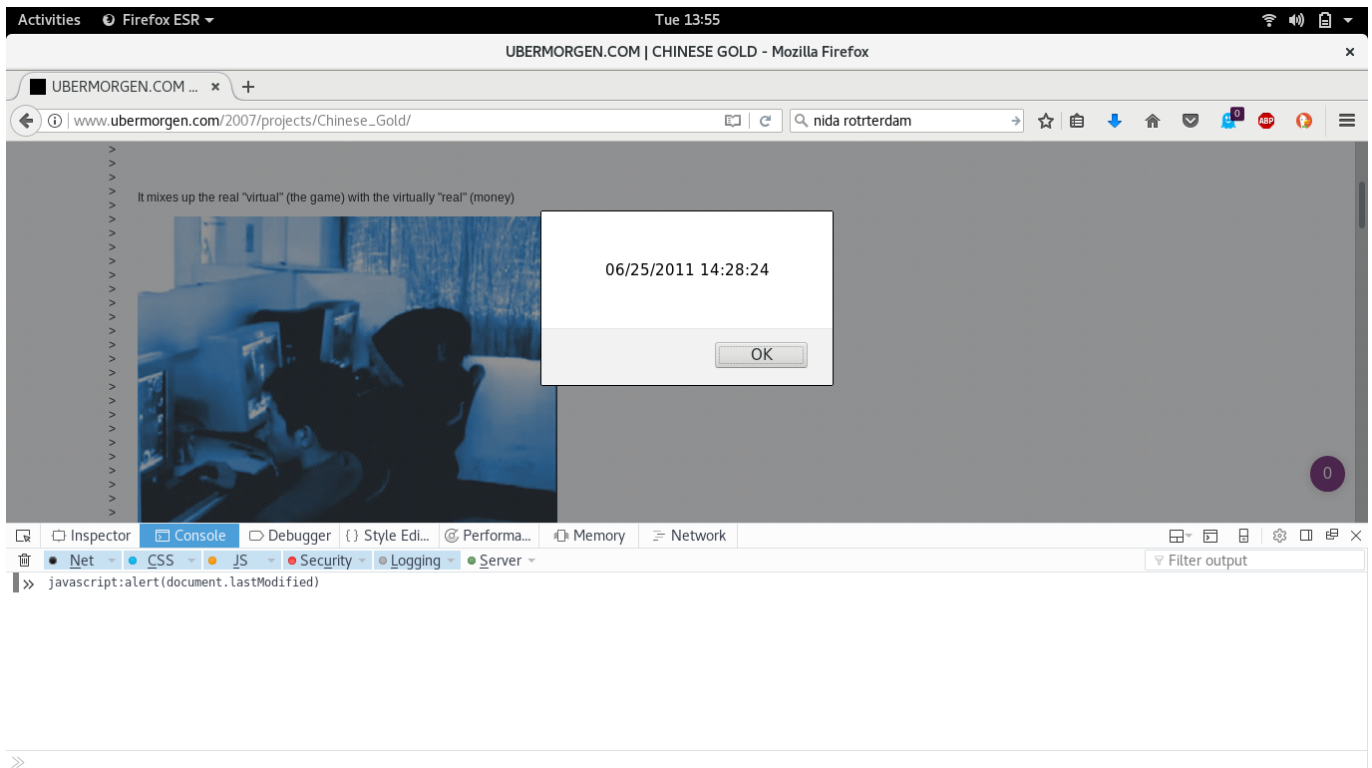


Fig. 1.3 – The Chinese Gold project page last update

Since the page was uploaded more than six years ago, the vast quantity of dead links amongst the list of external resources provided was to be expected. Navigating through them, it became clear that elements of the work can be subject to further modifications, as it has already been the case with the video. In this online presentation of *Chinese Gold*, context, documentation of the work, and the work itself appear almost inseparable and hard to differentiate. Productions by the artists and other parties are tied together through links rather than delineations. The use of video sharing platforms also adds in the possibility for online wanderers to further comment on the material assembled by the artists. This creates a difficulty of entirely circumscribing authorship to the artists' creations and to identifying the work as being reducible to a static set of core components: a tangible and fully identified set of images and videos. Moreover, the online staging of this work appears particularly dense, requiring careful selection and consideration for its translation as a presentation in an exhibition space.

Chinese Gold offline

– reconstructing the exhibition history of *Chinese Gold*

While attempting to retrace the history of presentations of *Chinese Gold* to an audience, it became clear that every exhibition has shown a singular “version” of the work under the same name. In 2006, the work was presented in three locations. Curated by the artists duo the Gao Brothers, the presentation space *Field of Vision* in Beijing presented the *Blue series* as printed images, sort of cut around the edges and glued on a big wide wall alongside the other submissions that had been received for the show (Fig. 1.4). It seemed to me that UBERMORGEN had not been involved with this show, as Hans Bernhard seemed very amused and surprised when I presented him the pictures of the show. Confronted with the impossibility of getting to Beijing at the time, they entrusted the work to the curators.



Fig. 1.4 The Field of vision show, Beijing

In an attempt to gather some lacking information on that year, I emailed the Museum of Modern Art of Ljubljana and the REX centre in Belgrade, with places having exhibited the work in 2006. Bojana Piškur, who works for the Museum of Modern Art of Ljubljana, kindly provided me with pictures from the Arteast exhibition in which the work was included. I received a folder with some highly pixelated images from the *blue series*, not indicating how these were displayed for the show (Fig. 1.5). The show was planned in relation to the Slovenian performance Art publication MASKA and presented a selection of artists it had previously covered. MASKA's project website² mentioned that the work was "paired" with the Slovenian collective IRWIN's *Retroprincip*. All the work shown at the time will have to be re-discussed with the artists in a 2023 follow up (Fig. 1.6). The *Belgrad series* was made during Hans' visit to the REX culture centre in Belgrad; the institution however never responded to my query.

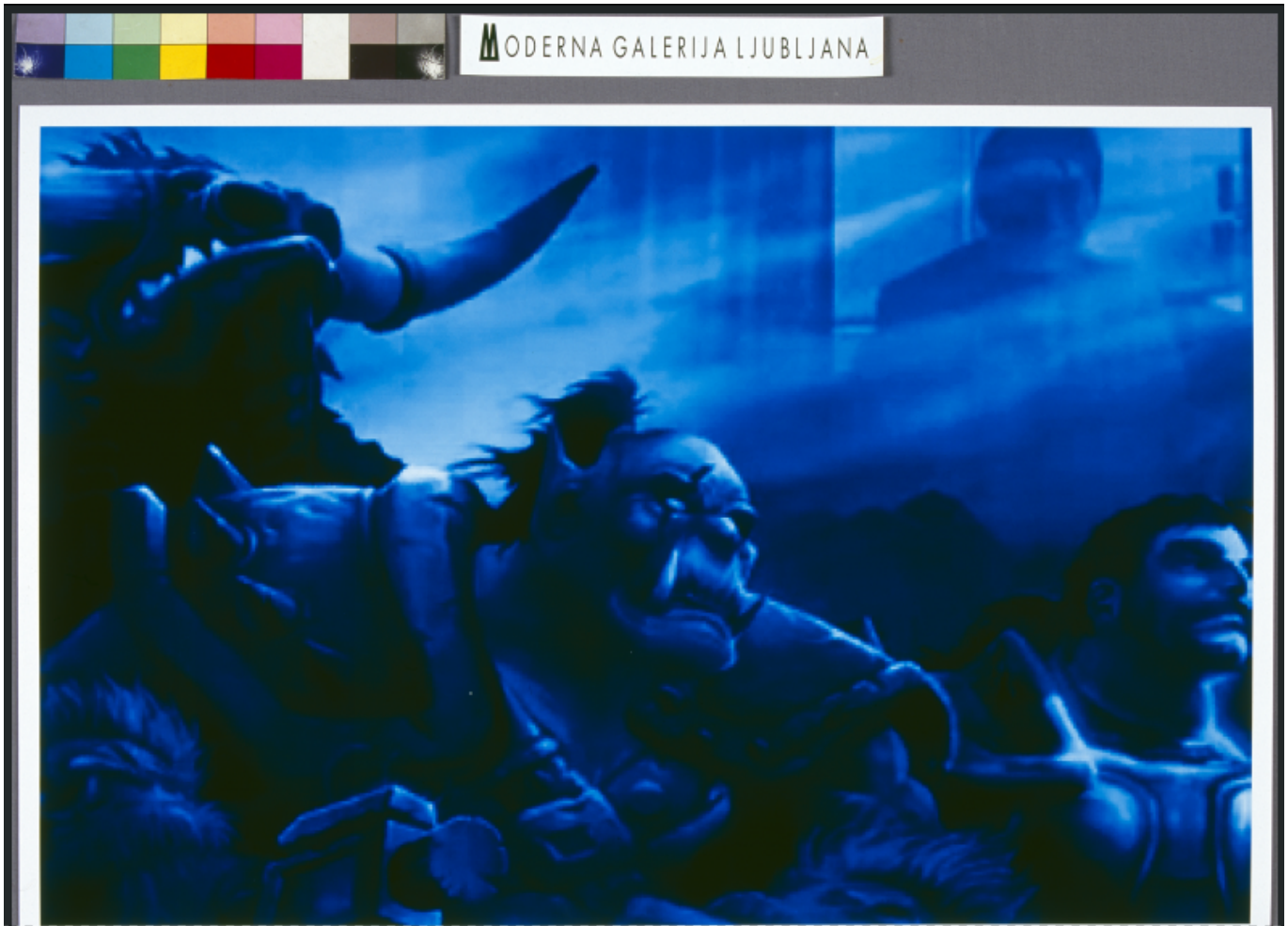


Fig. 1.5 - Chinese Gold prints for the Arteast+23 show, photos by Dejan Habicht, Matija Pavlovec, courtesy of Moderna galerija, Ljubljana

About the project

Along with the 100th issue of Maska, we are preparing the publication of the 200th issue which will, if this pace be kept, come out in 2023. The 200th issue will include contributions from artists who were covered by Maska from 2000 to 2005. The idea of this particular publication is to conceive a reader, a catalogue, a venue, a virtual festival of projects as the artists would imagine them for the year 2023.

Editors and writers from several of the most prominent international magazines from the field of performing arts were invited to reflect on the contributions also from the perspective of the year 2023, which will yield to addressing the future of performing arts and art in general in the most direct of ways.

Fig. 1.6 - The Maska +2023 project website

Searching for images of the exhibited work, I found out about more exhibitions that are not mentioned on the project website page: the show *Space Invaders* at FACT in Liverpool then at NIMk, Amsterdam (2010), and *user unfriendly* at Carroll Fletcher Gallery in London (2013). In London, the *Belgrad series* was framed (Fig. 1.7). In Amsterdam, two pictures of the *MTV series* were shown through light boxes, displayed around a video projection of the oldest Machinima video (Fig. 1.8). The video documentation made by NIMk, visible on the institution's YouTube account³, also shows all the pictures from the series that were not featured in the show, making clear that only a few elements from the work made it into the exhibition through the curatorial process. Other elements related to the exhibition theme, its overall set up and

surrounding events are still available on the institute's website, making it one of the most documented shows for this artwork.



Fig. 1.7 - The Belgrad series on display at Caroll Fletcher gallery, London

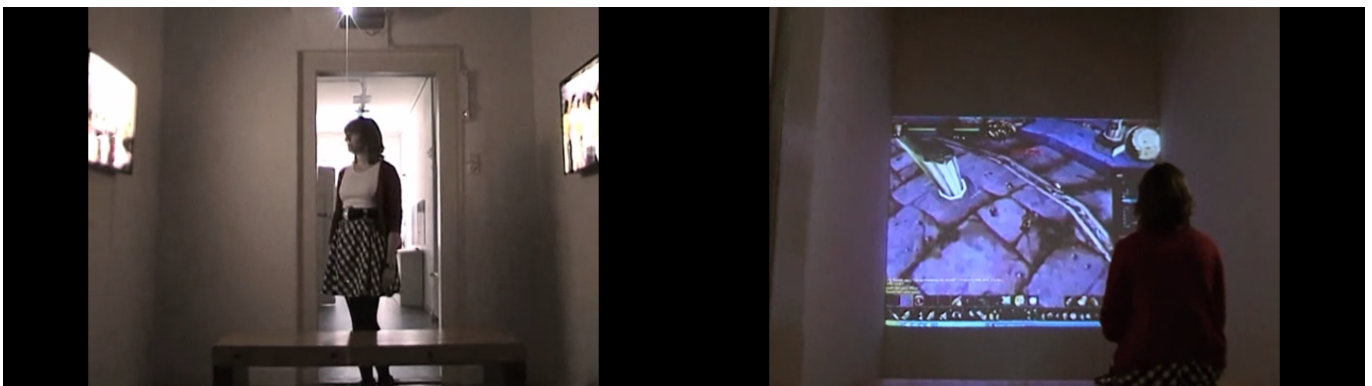


Fig. 1.8 - Youtube documentation of Space Invaders at NIMK

The most recent presentation of the work is the one developed as a collaboration between LIMA and UBERMORGEN for the Cultural Matter project described at the introduction of this work. This time, the latest *Chinese Gold* video, the *Blue series* and the most recently developed video work *Chinese Coin* (2015) were presented together. Sanneke Huisman kindly accepted to write about the development process for the exhibition:

"We selected three works, the works that were from our point of view the most characteristic of the project and together told the - somewhat cryptic - story of UBERMORGEN's research into Bitcoin and in-game mining. The selection consisted on two video works (Chinese Coin (Red Blood) and Chinese Gold (Boom); one more abstract, one more documentary) and the series of blue prints. The Chinese Gold (Boom) video to attract attention, interest and confusion, the blue prints and the red video to give a more precise idea of scope and intention. As a wink, the red video and blue print could be seen as punk modernist monochromes. Liz and Hans directly agreed on this selection." (Huisman - 2017)

Chinese Coin, a most recent piece on Bitcoin mining in China, was added with the aim to shed a different light on *Chinese Gold*. The later project was commissioned by NEoN in Dundee, whose page introduces the work as the last production from *"their long-term research into digital economies in China"*⁴. With regards to the curatorial development of the presentation, the artists became more involved than we had expected from the past trajectory for this work. Working together with the artists, it became clear that the display

of documents extracted from the archive was inconceivable. Instead, we had to find a way to contextualise our selection that would make a clear distinction between “the artwork” and the factual elements that informed its production process and support the project’s understanding. Soon after receiving our proposal, Liz and Hans sent us back their sketches with modifications and we developed the show along these lines. The *Blue series* was printed on aluminium plates, standing in line between the two screens showing the videos. (Fig. 1.9) Hans was present for the arrangement of the works in space. In preparation for the exhibition, I took up the task of producing a small publication containing a map of the exhibition with information on each work and also a preliminary interview with the artists reflecting on the whole project. Elements found in the artists’ research archive were also displayed as a way to provide with accessibility to contextual elements for the viewer.⁵



Fig. 1.9 - Cultural Matter at LIMA, courtesy of José Biscaya

With the work being thought of not as an object but rather as a series of files, its physical shape then is extremely variable. Items have to be selected and produced. Although this isn’t itself a very rare phenomenon, what is especially striking with *Chinese Gold* is that the artists intentionally leave the question of exhibition production open to uncertainty. The process of taking the work to a gallery space has always been developed accordingly with curatorial aims, production capacities, the artists’ involvement and so on. It is obvious that the Carroll Fletcher gallery show was aimed at collectors, that the one at NIMk focused on video games in contemporary culture, and at LIMA the exhibition came to reflect on the current state of the work itself. Although hierarchies between productions and sources seemed inexistant when encountering the work online, the production of the work of a gallery setting establishes more traditional distinctions, as nothing but the pictures and video has ever ended up on the walls. This means that the delivery of contextual elements has to be operated otherwise, may it be through a publication or a presentation. If the artists might have appeared as quite liberal with what they would allow curators to do with their work, the duo is very committed and their level of involvement in the most appropriate way of presenting the work is currently strong. Yet, the artists engage in dialogues with curators and production staff who will impact the presentation of their work.

The making of Chinese Gold

- reverse engineering *Chinese Gold* through archive material

Following a conversation from the summer of 2017, Liz and Hans agreed to send me the full archive for the project and email correspondence about it. The whole archive weighed about 10 Go and was comprised of

three folders corresponding to the three phases for the realisation of the project. I started by making a list of all the files in the folders and made annotations as I went through the items manually.

The first and biggest folder in the whole archive, corresponding to the first phase in the project, was called "CHINESE GOLD 2006" and contained the initial research and elements produced for the project. Inside it, I found a vast quantity of different iterations of the work. The images from the work's series and the video, previously identified as "core components", seemed to have been repeatedly selected and edited for varied purposes, evident in their appearance across folders with explicit names⁶, but also by the various intermediary workfiles amongst them (mainly Photoshop or iMovie files). These images have varied in many ways including colour, size and selection.

Aside from the work files, and the copies of the images and video in various sizes and resolutions, the folders also compiled the research made by the artists for the work. A folder titled "IMAGES" contained one folder called "SCREENSHOTS", filled with image research. In the first folder I found some photographs of the Bank of WoW's website. The next folders' relationship to the project was more difficult to establish: images of encrypted gold bars, golden coins, old golden objects, and wedding rings. All of these objects related to China in one way or another and seemed to be made of gold, the only link I could find between them. Since these images had never been used within the project, I wondered whether this could be envisioned as a "mood board" that echoed the name of the project. To investigate this I used the Google image search engine and typed "Chinese Gold". All of the images found in this folder came back in the very first result pages. Although not really exploited in the work, the idea of contextualising Chinese culture's take on "golden digital currencies" had been envisioned at some point by the artists. Moreover this gave me the hint that the project partly developed in an intuitive dialogue with online search engines. (Fig. 1.10)

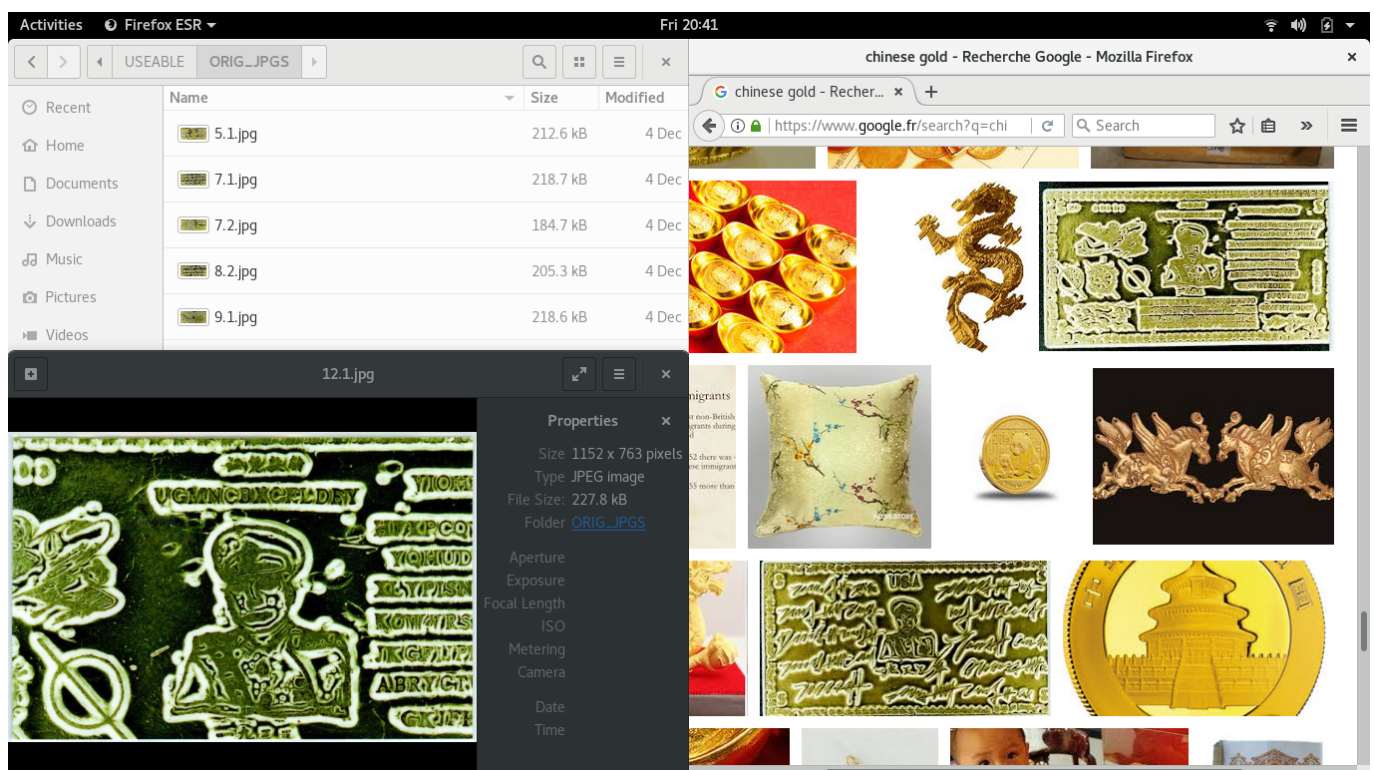


Fig. 1.10 - Items from the archive vs Google search engine results

A folder called "RESEARCH" contained email conversations from 2006. The emails were filled with references and information on the artwork, as exchanged between the artists and friends. The rest was a collection of articles covering topics related to the MMORPG (Massively multiplayer online role-playing game) World of Warcraft's implementation in China, the intervention of local government in regulating access to the game, international regulations on gold trading, and online users comments on the topic of Chinese gold mining in the game.

The next big folder, corresponding to the second period of the project was entitled "CHINESE_GOLD_2013_unreleased". This folder focused on Western users comments on Chinese gold miner's activity and the depiction of sweatshops, where gamers are locked in playing all day. These comments had been carefully selected and combined with pictures of some details in a sweatshop located in Singapore, visited by the artists themselves. Other items related to the exploitation of prisoners in China, such as an article from 2011 published in the Guardian detailing their enslavement into mining

gold in WoW. The "RESEARCH" subfolder for this section contained the picture of a whiteboard which established a chronology of the work starting in 2006, alongside keywords related to the work (Fig. 1.11). On the whiteboard, next to the work's title the artists had written "work in progress". An arrow was showing the project as evolving beyond 2023. A reference to Cory Doctorow's novel "For the win" was also present. The novel was published in 2010, years after the first version of the work. Information revolving around the work's focus of Chinese gold mining within WoW clearly continued to be collected after the first instantiation of *Chinese Gold*, and may have triggered the creation of the 2013 instance of the artwork. However, the artists decided that these instances didn't look good enough to be released, and so they remained locked within the archive.

"CHINESE_GOLD_New_Verwion_2016", or the last folder, didn't contain much but a new version of the initial video, made in 2016.

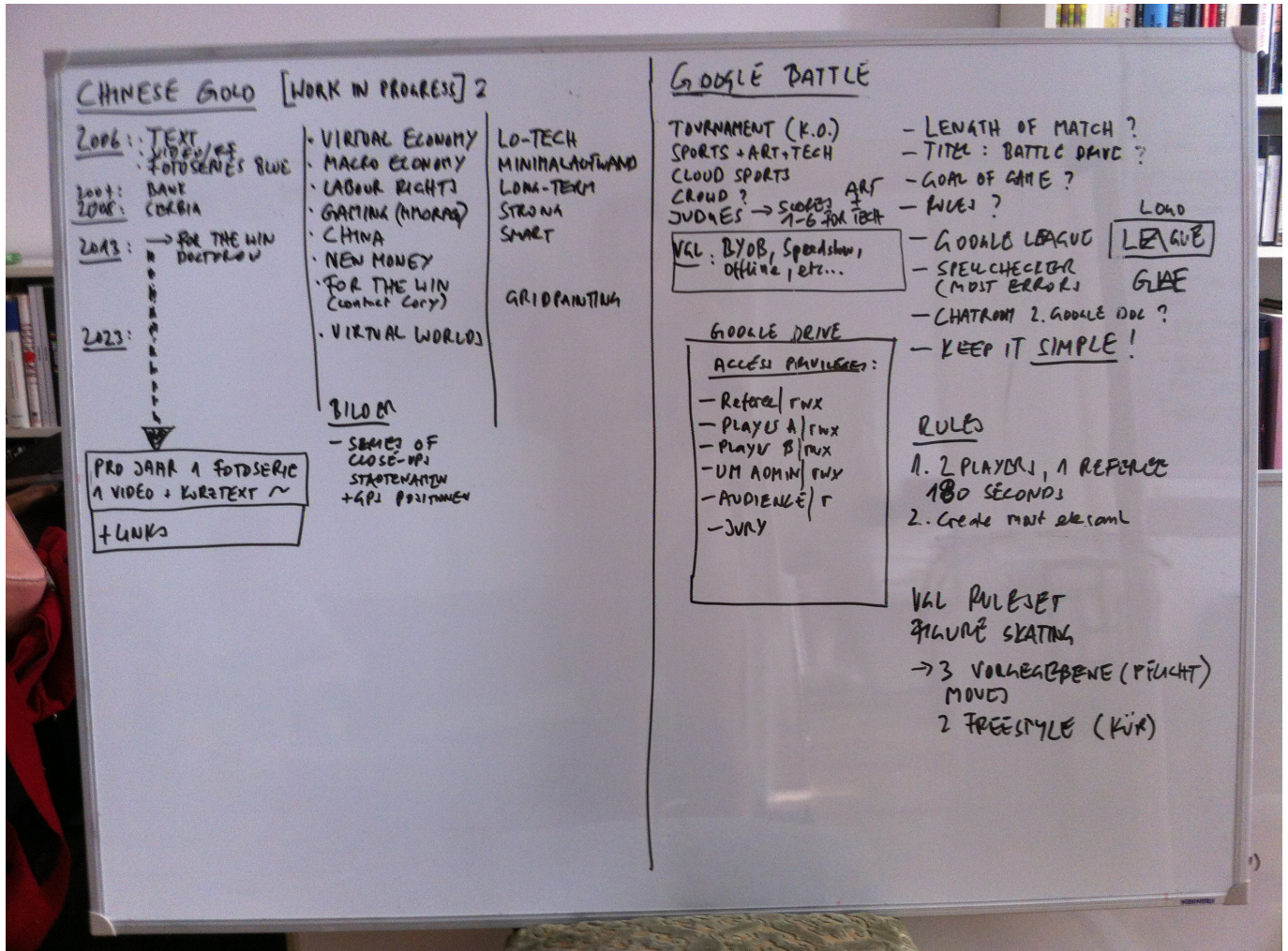


Fig. 1.11 - UBERMORGEN Chinese Gold project white board, courtesy of UBERMORGEN

After careful inspection of these folders, it became clearer that the project wasn't planned with a determined ending, and that it is still open for further modifications by the artists. The project is fed with information gathered from various sources, and as such has required precise contextualisation across a very wide field. What the artists seem to be busy with in the creation of this work is stitching facts and ideas together through a range of material. The work has been developed through a long process of trial and error, collecting and abandoning ideas, encounters and refinement rather than starting with a precise goal in mind.

Part 2: Preserving Chinese Gold

Prelude

While discussing my exploration of both online and offline presentations of the work and its archive, I have tried to underline characteristics of *Chinese Gold* that should inform a strategy for its preservation and future exhibition. At the beginning of this research I aimed to develop a methodology for archiving this artwork that could be replicated for various works. After a few months of studying it became clear that a fixed structure established in the present time might be contradicted by the evolution of the cultural context of the viewer of the work. The uncertainties around the future trajectory of UBERMORGEN's

work make a flexible approach quite desirable. Perhaps in half a century's time it will make no sense to show *Chinese Gold* as such, but rather will be more interesting to show it as a gesture through presenting its process of creation and original context.

While the online presentation of the work provides with a vast quantity of contextual elements, this environment is ever-changing and very precarious, unprotected from link rot and non renewed domain name subscriptions. These risks are enhanced by the reliance over third parties, which behaviour is unpredictable. The archive of the artists also contains copious amounts of research and information about the theme of gold mining in World of Warcraft, and the social effects it induced. However, it would require annotations to become readable by viewers external to the project. As the context surrounding the work, and assembled by the artists, seems to be the most fragile and crucial aspect for this work, its documentation currently appears to be one of the most important step to be undertaken in terms of preservation.

The several materialisations of the work offline have been developed with specific audiences in mind and precise curatorial aims. The variable character of the work is enhanced by the absence of guidelines for curators to reproduce similar versions of the work each time it has to be shown. This means that the presentation context (alongside curators and artists availability) is also an actor in shaping the work's manifestations. As this uncertainty characterises the work, the documentation of the appearance of the work within different exhibition setups is also desirable; it can enable an *à postériori* understanding of how the work has evolved through time, culture and contingencies, but can also inform future decisions made for the display of the work. For instance, the choices made during LIMA's presentation happened in light of prior decisions made, showing that there was no static formula. Organising information about the trajectory of the work and its various manifestations, alongside elements revealing the artists' process, would support decisions for future presentations. Moreover, archivists, curators, documenters, reviewers, and other agents involved in making and channelling the work should be accounted for in this knowledge base as different actors who have influenced the becoming of the work.

While reviewing the list of works submitted by UBERMORGEN to LIMA, the presence of a work titled *Chinese Coin* (2015) alongside *Chinese Gold* made us assume there was an affiliation between the two works.

Although the piece constitutes in itself a different project, it was indeed commissioned as a new development in a long-term research into digital economies in China by the artists. This type of relation between different works that stand individually, while being part of a theme-related production ensemble, is very frequent within UBERMORGEN's practice. Although the pieces aren't items from a series constituting one work, the question of the preservation of this more recently created work also requires thinking more globally about how these productions can be archived as distinct yet related works.

With these thoughts in mind, I have orientated my approach to focus on documentation, collaboration and the potential redefinition of the work's status and relations within the framework of an institutional archive.

Documenting Chinese Gold

1. Interviewing the artists

Early in this research I wanted to create a specific account on *Chinese Gold* that would help establish a picture of where the work was at in the end of 2017, 11 years after its beginnings. In a discussion from August 2017, Hans Bernhard mentioned that conversations were a medium of choice to communicate the processes and content of UBERMORGEN's productions:

"Since I started with artistic production (etoy, then UBERMORGEN) it has always been the more important and interesting thing as to how we produce, who we are and how we interact and work [...] we are and were always most interesting when we talked about our work, because only then you can understand the narrative and processes of a 4 month project like Vote-Auction, or a weird Warholian work like Chinese Gold..."

As preparation for the interview, I consulted *"The Artist Interview - for Conservation and Preservation of Contemporary Art. Guidelines & Practice"*, by Lydia Beerkens (et al). Following an ethnographic approach, the publication takes the process of making an interview for preservation purposes to a very abstract level and gives much formal information. The abundance of advise such as *"Keep things neutral and professional"* or *"Repeat a crucial or meaningful word from the artist's response in a questioning tone of voice"*, as anecdotal as these excerpts may appear, seemed to reveal a vision in which the interviewer is more of an obstacle than a potentially fruitful addition, or even a necessity. Of course, the book acknowledges that in any interviewer-interviewee relationship interviewers cannot be detached nor objective, and that their involvement will affect the interview. Yet, the attempt to minimize the visibility of the interviewers impact

isn't itself quite a neutral position. Acknowledging rather than concealing the external influence could allow the external party's influence to be addressed or even criticized by future readers.

The artist interview also contained questions targeted at media art in the context of preservation, which revolved around the material integrity of the work. These were not extremely relevant to my case. Such an approach seemed to dismiss that, in born-digital art especially, keeping a work materially intact in an ever-evolving technologically networked framework will alter it as much as material intervention would. For example, encountering a work such as *Agatha Appears* by Olia Lialina, which dates back to 1997 (Fig. 2.1), during the 56k dial up modem area, with its original navigation rhythm and the general pre-web 2.0 aesthetic then landscape (Fig. 2.2), was a different experience than encountering it 20 years later at a time where most internet connections are operated from smartphones. When the work was visually more banal, the narrative aspect was perhaps more striking. The late 20th internet's nostalgic look and feel now, which has modified its relationship to its audience but also its status as a cultural object.

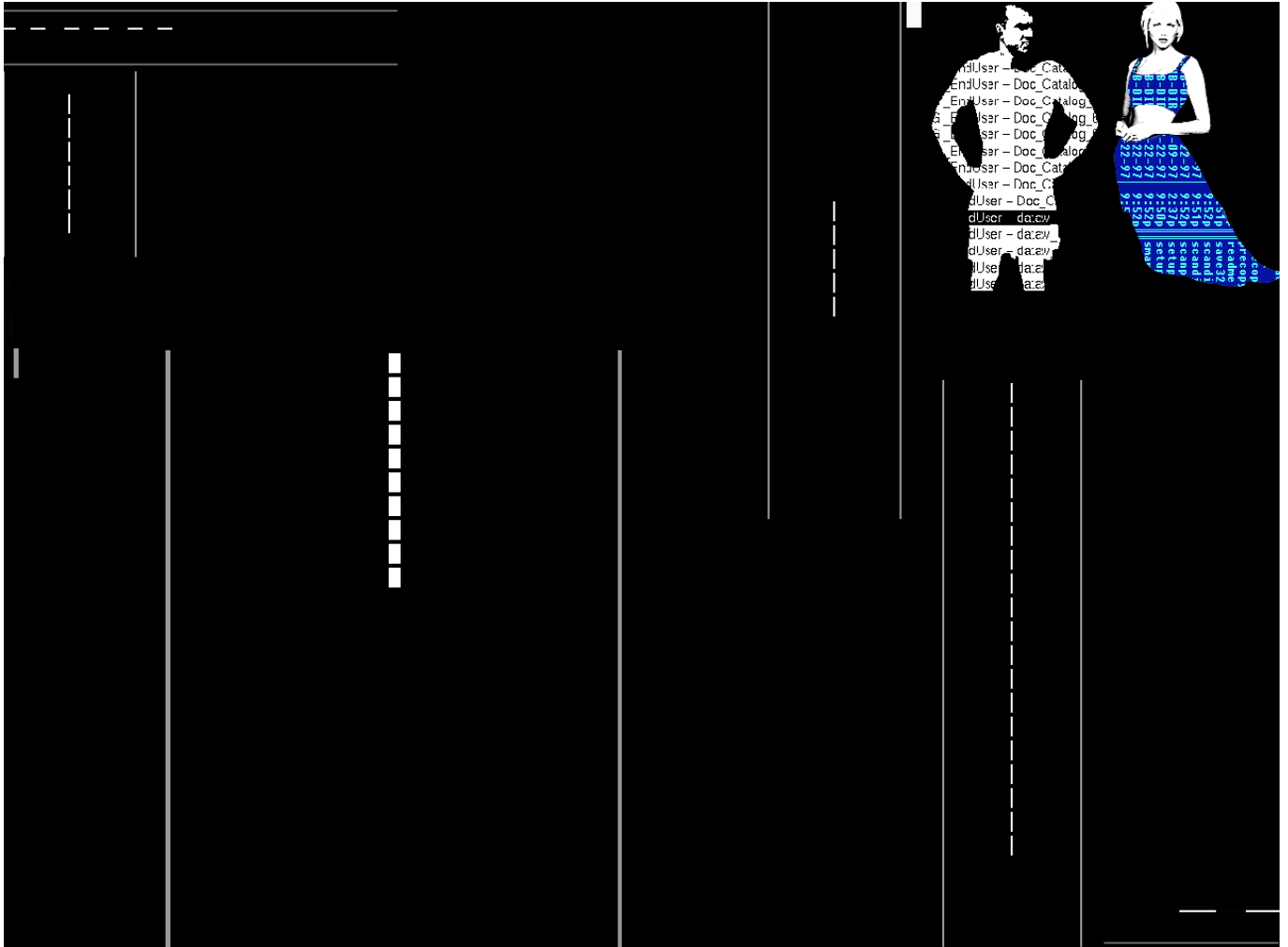


Fig. 2.1 - *Agatha Appears*, Olia Lialina, 1997

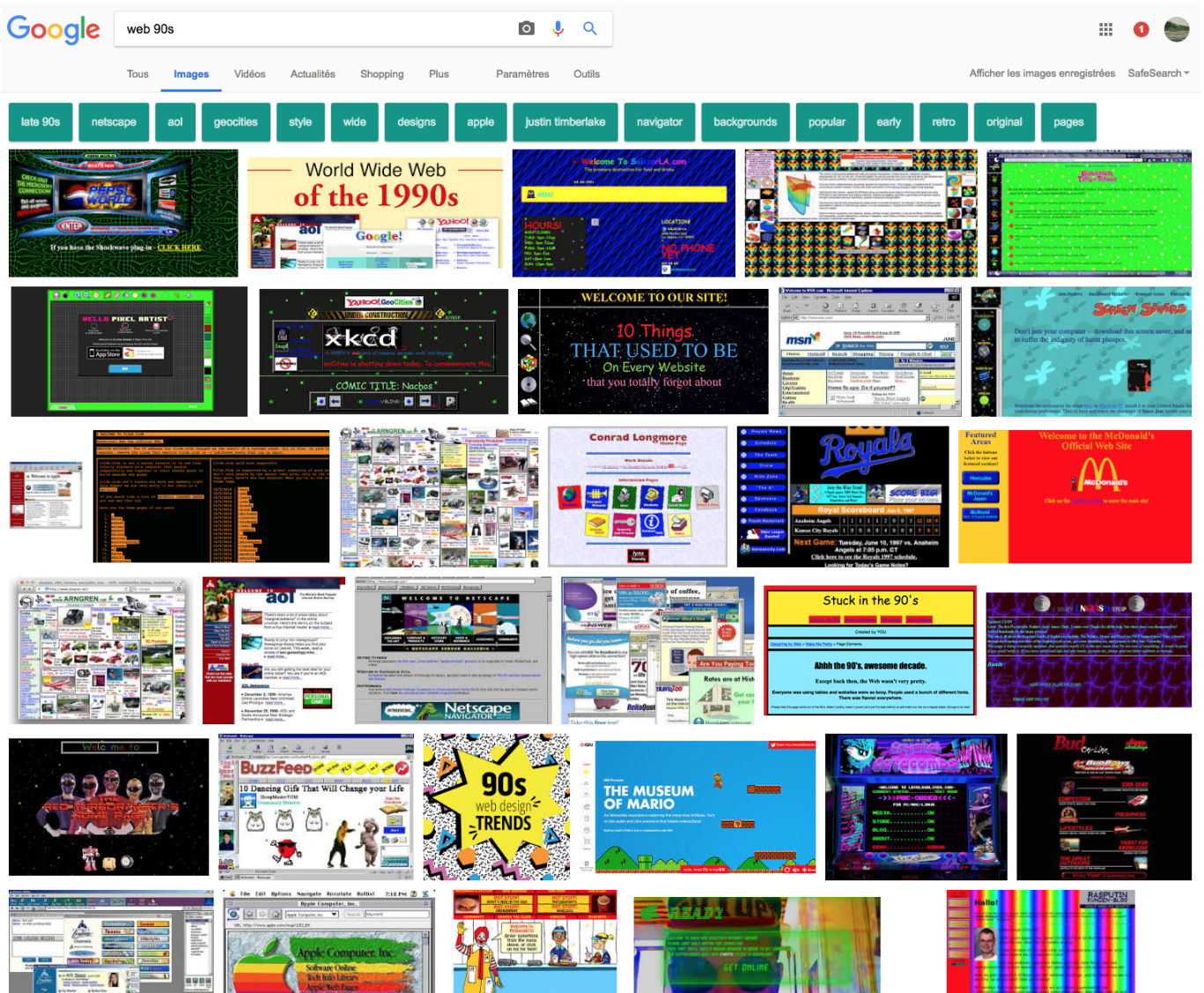


Fig. 2.2 - The 90s webscape

While the detachment of an artwork from its production context this is not necessarily an issue, the performative effect of time can prove to be problematic in the case of works for which context is especially important. As Hans Bernhard mentioned during one of our discussions, UBERMORGEN's primary work is to create context. Thus, the preservation of the work would call for the maintainance of this combination of facts around the work and visual components constitutive of the work, images and video, in order to preserve their relationships for the future audience. Emphasizing the preservation of images and videos from the work as “authentic” objects would miss the point.

Curious to understand the impact of the interviewer/interviewee relationship and its effect on a resulting interview, I contacted curator Michelle Kasprzak, who had produced the very thorough publication⁷, in addition to her curatorial duties, for the *No-Limit* show at the Kasseler Kunstverein in 2015. She kindly wrote down a few words about her work with UBERMORGEN. What came out of it was how involved with the artists she had been during the development phase, but also that her experience and approach to the interview was influenced by her relationship and involvement with the artists, which progressed naturally. They had developed a friendship, which enabled more in-depth discussions and a better understanding of the work for Michelle, who ultimately influenced its development:

“Hans and I met at a conference in Essen and instantly got along, before long we were talking about working together. Shortly after I began a series of Skype calls with him and his partner Iizvix regarding the development of No Limit.”

“So for me as a curator, my job was to help them refine the flow of the exhibition, give feedback on the pieces that were still in production, and to produce the exhibition e-book with them.”

“The whole process involved many hours of discussions and through it I began to really appreciate the fascination that UBERMORGEN has for mental illness.”

As mentioned earlier, UBERMORGEN is very much used to discussing their work, which they regard as an important part of their practice. Willing to depart not from conservation theory but rather from the artists' relationship to the medium, I slotted into the various interviews already made with UBERMORGEN. This

gave me a more tangible sense of what they may be inclined to deliver, how they envision their work, what they feel should be preserved, and how. The most important step for me was the establish a junction between the moment when the work was made and the present moment from which I was looking at it (hoping that these links would facilitate further access).

In preparation, I out my interview with UBERMORGEN and considered the knowledge I had started to develop about the work, my understanding of its topic through the influence of the material I had obtained, and my general appreciation of UBERMORGEN's work. Just like Michelle, my relationship with UBERMORGEN was very good from the beginning and was never complicated by social formalities or rigid roles. Collaborative behaviour, reciprocal appreciation, trust and casual "off the wire" discussions also affected the work we did together. The flexibility of these parameters allowed me to produce the interview. Following the preparation of the written interview, a discussion was also held at LIMA for the opening of the show on the September 27, 2017 which continued on from our previous discussions and explored the processual aspect of their work in greater depth.

2.Capturing online documentation

While researching *Chinese Gold*, I created a wide variety of documents, from spreadsheets to annotated lists of documents, or extensive descriptions just like the one at the very beginning of this paper. A preamble for my work was the gathering of online documents, like the NIMk video documentation of the *Space Invaders* exhibition, web pages made PDFs of exhibitions or Domenico Quaranta's text about the artwork. These documents have helped me understand the work from many angles, and eventually served as a basis to elaborate the work's most recent interaction with an audience. Potentially the material I have produced will also be reused for the creation of new translations of the work.

The documents I have collected and made use of (comment, analysis, description, pictures, videos, interviews, etc.) were found through online research, since the internet is my primary searching apparatus. Having access to a wide variety of documents from different sources supported my capacity to understand the work in 2017. However, not all documentation I searched for was still available at the time of the research, due to link rot for instance. Mentions of the work across time in various documents found are also significant in that they illustrate the work's changing appreciation and transformations. Having a regular check of online information on the work, and capturing the various literature on the topic of the project, could be helpful in the long run. It would not only allow for the preservation of valuable information but also enable viewing moments of renewed interest for the work.

Willing to test the feasibility of this idea I ran a short script which returned the first 100 results for a Google query (which can be modified). The results are of course shaped by the search engine algorithms and keywords input in the script. As my own documentation of the work, the publication produced for the exhibition at LIMA, was eventually referenced by Google's algorithm, it also came up in later script results. A comparison of the different results through time would enable witnessing changes and the ability to archive new content for later reconstruction of the work's timeline. (Fig. 2.3)

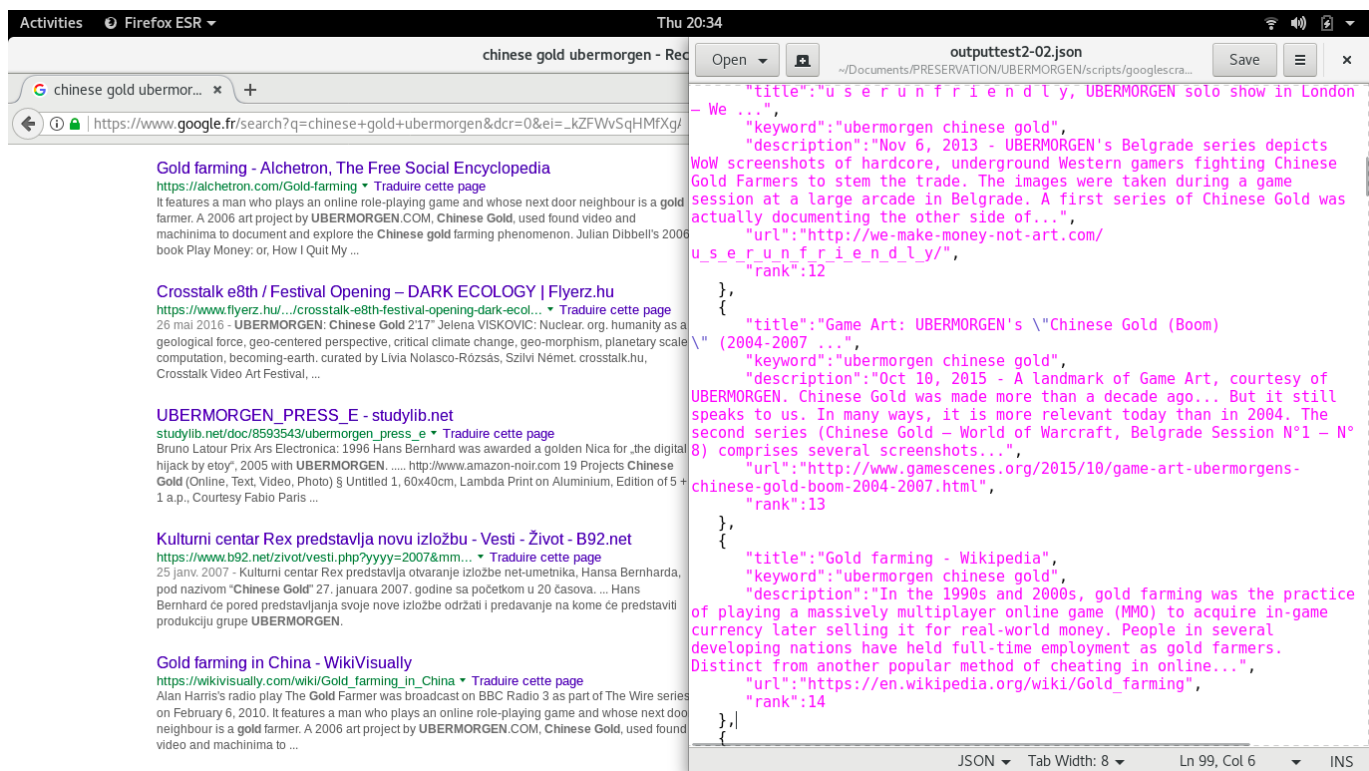


Fig. 2.3 - Google query results retrieved with python as a json file

Monitoring the availability of information on works such as *Chinese Gold* could be useful in a context where knowledge is primarily circulated online. Designers and programmers could be potentially commissioned in developing such tools to retrieve documents with relevant metadata under preferred formats, like a PDF, or even an HTML page added to a web interface for the archive. Such scripts could also be run periodically to add new information on a regular basis and enable in the long-term to identify events of importance in the autonomous life of the artwork.

Establishing a network of carers through digital means

As often mentioned, *Chinese Gold*'s instability is determined by the deliberate absence of specific guidelines for its public presentation, the possibility of artistic intervention and the change of online context. Moreover, different institutions and curators have presented and eventually documented their installation of the work. The collaborative elaboration and transmission of knowledge on the work, enabling to retrace changes through time, would be valuable in the long-term preservation of the artwork's trajectory. In the light of these aspects, *Chinese Gold* seemed to appear as a good candidate for the investigation of the potential of version control systems in a collaborative preservation model of digital art.

Following some conversations with Annet Dekker, Claudia Roeck and Dusan Barok, I joined the coordination team for a work session called "*Collaborative Archiving of Digital Art*"⁸, held at the University of Amsterdam during the Digital Methods Winter School in January 2018. The session's aim was to explore the potential of using version control software for the preservation of complex networked artworks⁹. Version control is a component of software that can keep track of changes in documents alongside metadata such as an author's name, submission date and message. The session's focus was on free and open source softwares Git and MediaWiki. Fortunately, UBERMORGEN was kind enough to allow us to depart from their project's archive for the week's experiments, and so *Chinese Gold* became the artwork around which our collective experiment was centred.

Initially created for source code management in collaborative software development, has Git gained more visibility and popularity outside the software developers' spheres through the growth of Github's popularity. "*The open, collaborative workflow we have created for software development is so appealing that it's gaining traction for non-software projects that require significant collaboration*" said GitHub cofounder and CEO Tom Preston-Werner.¹⁰ Users from various backgrounds, even the ones not experimented with coding, started to try out more experimental uses for the software, for applications in which information has to be collectively shared and improved. Git records the integral content of files as versions (the whole content of the file is stored) and indexes the content of files using cryptographic checksums, which can then be used to re-access these past versions.

MediaWiki is a software which can be deployed on a server and allows for collaborative editing. The software has been popularised by the Wikipedia project and has since been used in many projects such as the platform for collaborative studies of the arts and humanities *Monoskop*.¹¹ MediaWikis embed the Quickdiff function which enables to browse changes on a Wikipedia page for instance, while also displaying metadata such as date, author and the portion of content that was modified. (Fig. 2.4) The wiki software also has a feature that enables document changes operated on media files.

Ubermorgen: Difference between revisions

From Wikipedia, the free encyclopedia

Browse history
▼

Revision as of 11:16, 20 October 2011 (edit)

188.118.227.194 (talk)

(minor editing of galleries, a change of title (highlights to network) and moved exhibitions from life/career up. will soon try to include some images as well)

[← Previous edit](#)

Revision as of 15:56, 20 October 2011 (edit) (undo)

Unicornzombie (talk | contribs)

(added 5 images to contextualize the work and the artists)

[Next edit →](#)

Line 1:

{{Infobox artist

| name = UBERMORGEN.COM

- | image =

- | imagesize = 225

| caption =

| birth_date = Established 1995

Line 1:

{{Infobox artist

| name = UBERMORGEN.COM

+ | image = [[File:UBERMORGEN.COM lizvix & Hans Bernhard with Guantanamo Bay Prison Guard Chris Arendt.png|thumb|frameless|alt=UBERMORGEN.COM lizvix & Hans Bernhard with Guantanamo Bay Prison Guard Chris Arendt|UBERMORGEN.COM lizvix & Hans Bernhard with Guantanamo Bay Prison Guard Chris Arendt]]

| caption =

| birth_date = Established 1995

During the week, the whole team was divided into three subgroups: one focused on Git, another on MediaWiki, and the last with researching and documenting the experiment. A MediaWiki was set up for the project, and some of us started looking into the possible inclusion of an artist's archive in the system, but also exploring ways of collecting and adding information on a project. Through the course of the week, it appeared that the Mediawiki software called for the establishment of a collectively shared workflow for the coordination, and was extremely handy for the documentation of the project. The platform proved to be a great tool for collaborative publishing and editing, encouraging people to create pages, categories and organising content through the use of tags and keywords. Information missing from the archive, on exhibitions for instance, was researched online and included in the wiki. Content was edited, improved and structured. (Fig. 2.5-2.6)

Activities Firefox ESR Wed 18:07 NiMK exhibition - CADA - Mozilla Firefox

https://multiplace.org/cada/index.php/NiMK_exhibition

greve sncf

Create account Log in

Page Discussion Read View source View history Search CADA

NiMK exhibition

Chinese Gold series has been on in [NiMK, Amsterdam](#).

Contents [hide]

- Space Invaders
 - Exhibition Text
 - Background
 - Artists that also appear
- Artwork
- Installation
- Pictures of exhibition
- Audience reception
- Critical reception
- Media publication

Space Invaders

The work was part of the *Space Invaders* group exhibition that explored the increasingly blurred boundaries between video-game space and real space. It was on show from the 28th of August until the 7th of November with the opening night on the 27th of August.

Exhibition Text

Fig. 2.5 - MediaWiki page 1

Activities Firefox ESR Wed 18:07 Revision history of "NiMK exhibition" - CADA - Mozilla Firefox

https://multiplace.org/cada/index.php?title=NiMK_exhibition&action=history

greve sncf

Revision history of "NiMK exhibition"

View logs for this page

Search for revisions

From year (and earlier): 2018 From month (and earlier): all Tag filter:

Show

Diff selection: Mark the radio boxes of the revisions to compare and hit enter or the button at the bottom.
 Legend: **(cur)** = difference with latest revision, **(prev)** = difference with preceding revision, **m** = minor edit.

Compare selected revisions

- (cur | prev) 00:17, 12 January 2018 Larissa-T (talk | contribs) .. (8,399 bytes) (+52) .. (→Audience reception)
- (cur | prev) 16:15, 11 January 2018 Larissa-T (talk | contribs) .. (8,347 bytes) (+5,138) .. (→Space Invaders)
- (cur | prev) 15:56, 11 January 2018 Dusan (talk | contribs) .. (3,209 bytes) (+187)
- (cur | prev) 15:43, 11 January 2018 Dusan (talk | contribs) .. (3,022 bytes) (-12) .. (→Artwork)
- (cur | prev) 15:42, 11 January 2018 Dusan (talk | contribs) .. (3,034 bytes) (-479) .. (→Pictures of exhibition)
- (cur | prev) 15:39, 11 January 2018 Dusan (talk | contribs) .. (3,513 bytes) (-206) .. (→Artwork)
- (cur | prev) 15:32, 11 January 2018 Dusan (talk | contribs) .. (3,719 bytes) (+25)
- (cur | prev) 15:01, 11 January 2018 Larissa-T (talk | contribs) .. (3,694 bytes) (+19)

Fig. 2.6 - MediaWiki page 2

For the purpose of the session Git was used alongside Gitlab, an online repository hosting service with an Open Source underlying software which can be installed to other servers. The first step consisted in the tracking of the archive folder. Created with code development in mind, Git was not made to handle binaries, which can very quickly impair the versioning flow. The software creates snapshots of the folder being tracked, and so would create duplicates of the binary files which would quickly seriously increase the project's size. To circumvent this issue, we added Git LFS¹², a large file storage extension developed with the aim to solve this problem. The extension conveniently points at the binary files locations, yet these documents remained un-tracked. With the increasing interest in having a solution for this issue, a solution might eventually be developed¹³.

Git's minimal interfacing calls for individual experimentation and organisational strategies. A few of us created scripts, or created folders for the addition of complementary information and worked on branches (individual lines of development). The archive grew with the addition of our scripts and their outputs, developed through individual explorations of the work. (Fig. 2.7-2.9) An other advantage to such a system

is that the removal of software doesn't alter content access or readability since the file system determines the structure. In addition, the system is decentralised and each participant has a local copy of the project, ensuring the multiplicity of occurrences. On top of that, each modification to the repository is made through the creation of commit information such as the time of modification, the person who made it, with contact email, and a message on the commit. This system allows retracing the evolution of the modifications performed on the folder, and as such the retracing of actors involved with it. (Fig. 2.10)

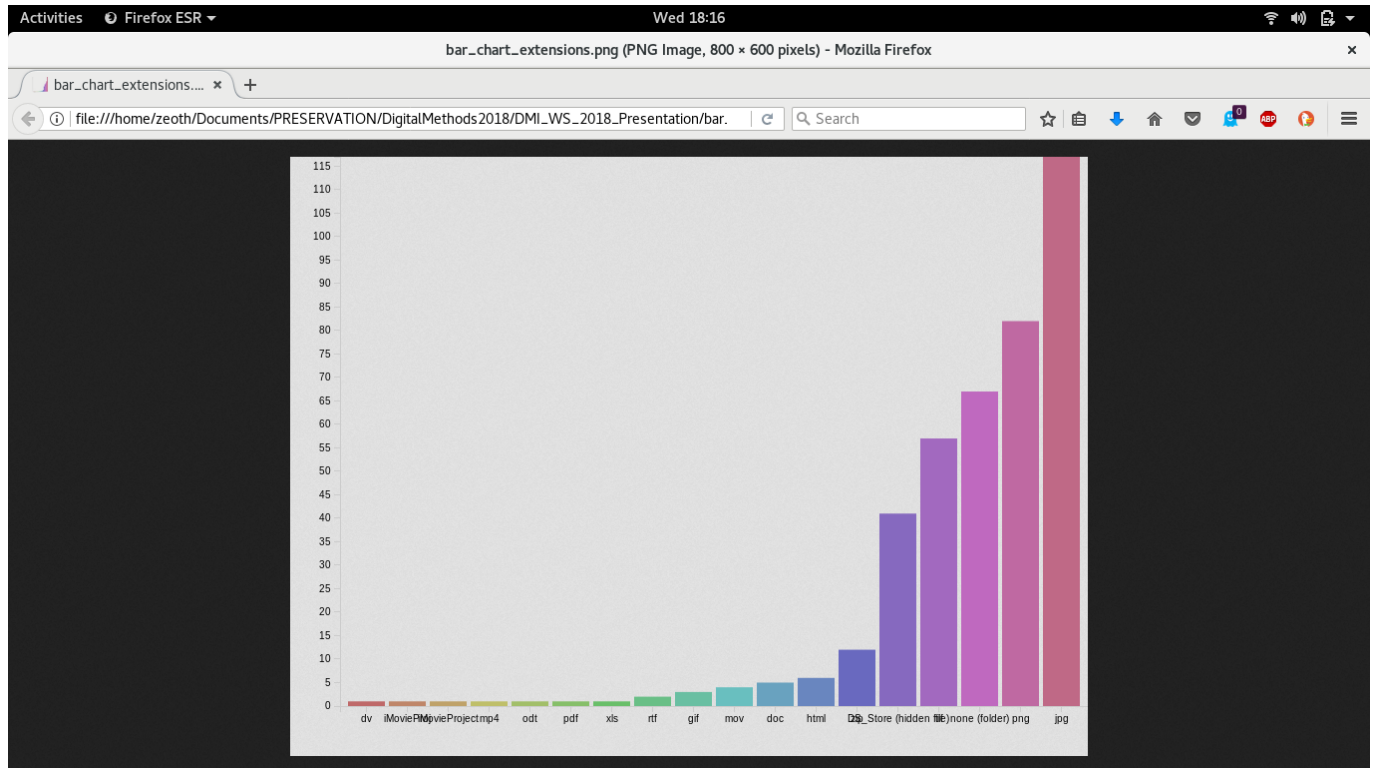


Fig. 2.7 - File types visualisation, contribution by Judith Hartstein

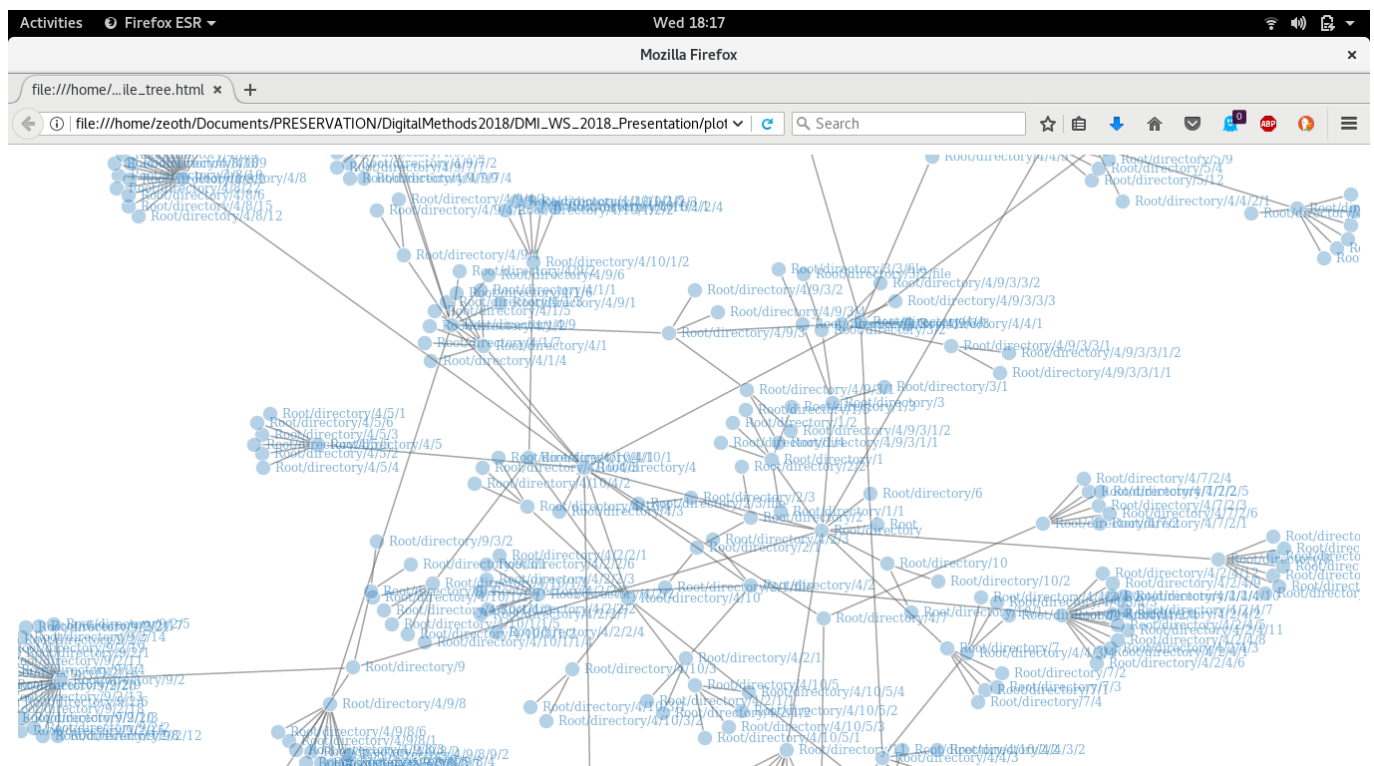


Fig. 2.8 - Folder structure visualisation, contribution by Judith Hartstein

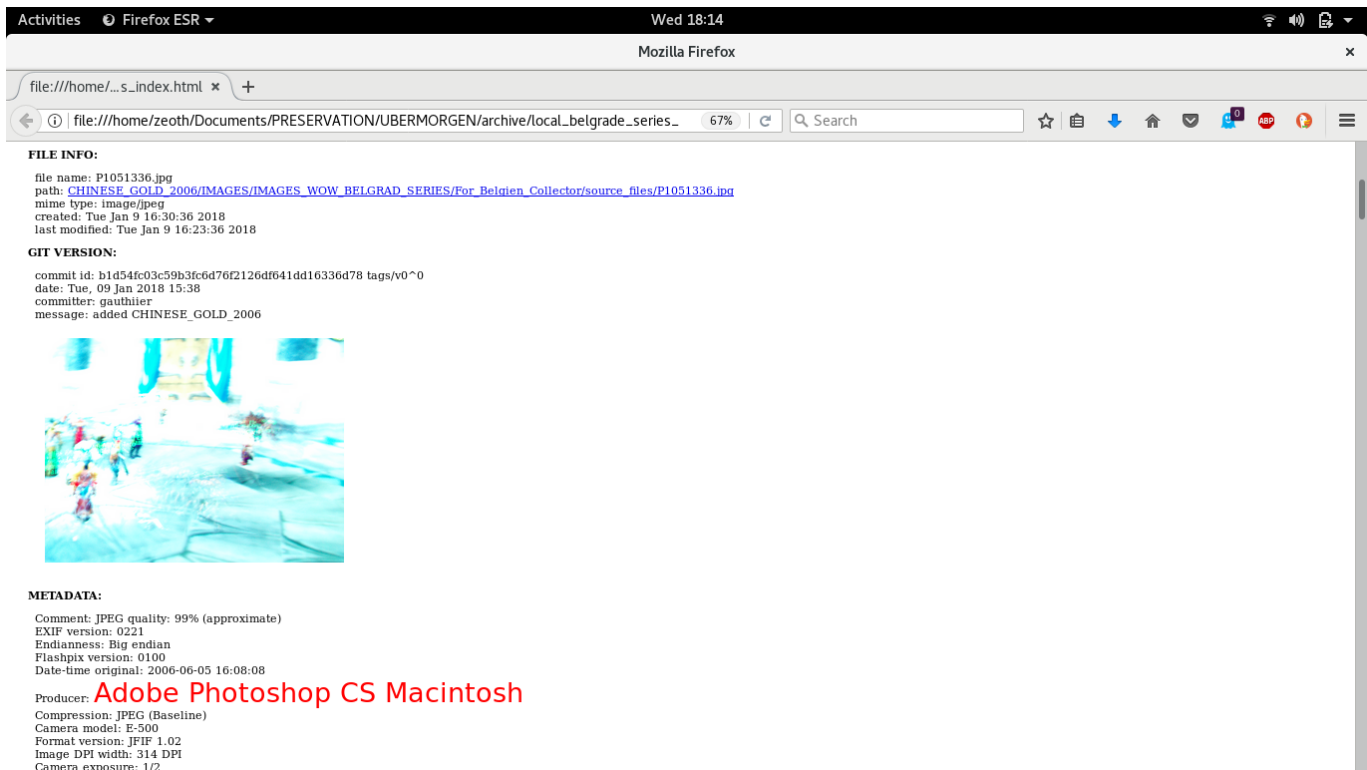


Fig. 2.9 - Files forensic analysis, contribution by David Gauthier

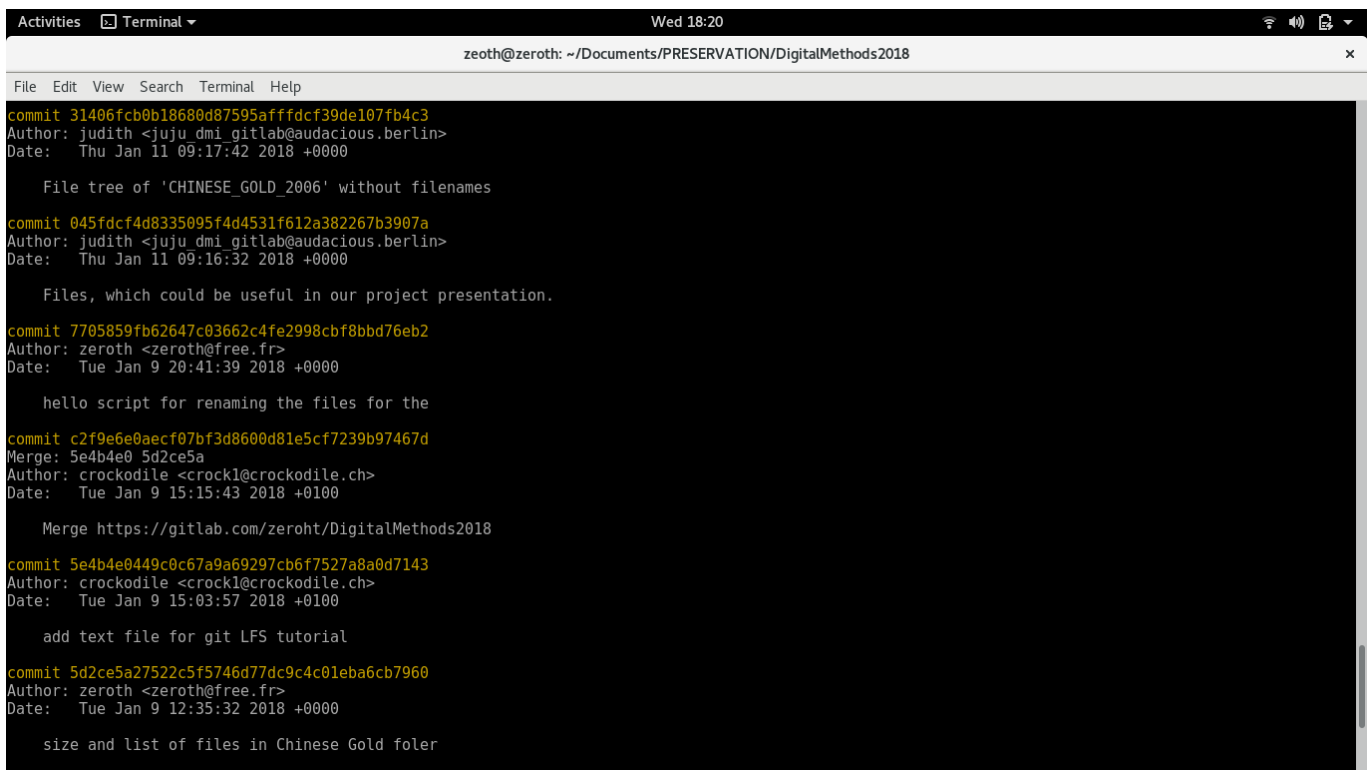


Fig. 2.10 - Git logs

Although Git might look like its use requires huge technical skills, a proactive use of the MediaWiki software also involves a learning curve. MediaWiki is more oriented towards publishing and content improvement. It is also centralised, and a structure has to be determined beforehand. Git on the other hand promotes the multiplication of the repository and allows for various branches to be created. Each software manages collective work for specific tasks and so versioning can be used either to access prior versions of a whole set of files (Git), or to see the changes in information added to a collaboratively edited resource (MediaWiki). Even though there isn't any technical answer to control versioning the whole work at the moment, software gets created through needs so we could speculate that collaboration between institutions, as an attempt to address common needs, could trigger new developments. For now, the design of a strategy using a combination of tools and scripts could allow for an archival practice that would benefit from collaboration, versioning and crawling. This could also potentially ease and support the distribution aspect for the works.

Towards a more flexible archive structure?

A last problem in the case of UBERMORGEN's works was their tendency to escape traditional archival organisation paradigms. The delineations between several works from the artists, and sometimes the works and their documentation, tends to be fluid and renegotiable over time. For instance, at the time of UBERMORGEN's submitting their work to LIMA, it was obvious for Sanneke Huisman and I that *Chinese Coin* and *Chinese Gold* were related. Other works have been submitted by the artists as individual items while being connected by a same research project such is for *Infirmière Visiteuse* and *Nice Vanilla Latte*, two videos part of the *No Limit* series. *Clickistan* or *the Sound of Ebay* are both interactive websites submitted as videos under the label of artworks. Potentially, these documentations could also be seen as substitute for the work, perhaps if the works ever cease to function, or because UBERMORGEN has tends to sell files generated after a work as legitimate pieces¹⁴. This raised some issues with regards to the current software used by LIMA, a collection information system called Watsnext, which was developed when projects boundaries were a lot more clear.

LIMA's software was built with more traditional video artworks in mind. At the time, the vast quantity of works that constituted the collection didn't raise the same questions with regards to materiality and relations. Registering a work in the system offers three options, determined by the state of the archive when the software was conceived. Items can be classified as follow : video, video channel and installation. Aside from an artwork and its description, it is also possible to register the documentation of a work in the software system. This means that every submission of work from UBERMORGEN to LIMA could be registered as either a work in its own rights, disconnected from other related works, or part of an installation and thus not enabling the work to live a life of its own. However, *Chinese Coin* and *Chinese Gold*, although related, have been and might be exhibited independently of one another, and so don't fit neatly into describing each work as independent or connected to each other. The same thing applies to the works from the *No Limit* series, as *Nice Vanilla Latte* was exhibited alone in 2016 at *Avalanche*, a London-based artist-run-space. This problem is not unique to LIMA of course. Vivian Van Saaze discussed a comparable issue in her account of the acquisition of *No Ghost Just a Shell*¹⁵ by the Van Abbemuseum in Eindhoven around 2002.

The *No Ghost Just a Shell* project was initiated in 1999 when Pierre Huygues and Philippe Parreno purchased the copyrights of a virtual character, to which they gave the name "Ann-Lee" and a 3-D modelled appearance. For the 3 subsequent years, they invited other artists to produce artworks using the character. The pieces have been exhibited in many locations over the following years, sometimes singly, sometimes in combination. In 2002, an exhibition gathered all the works featuring Ann-Lee, entitled "*No Ghost just a Shell*", which was initiated by the director of the Kunsthalle Zurich. This exhibition marked the end of the project. Van Saaze explains that at the time, the Van Abbe Museum had already committed to buying the work, which also meant purchasing the many works produced by different artists that all revolved around the exploration of Ann Lee's identity.

The purchase of the work required the necessity of defining what constitutes the artwork, which has come into conflict with the Museum's administrative system. Van Saaze discusses the software used by the Museum, a standardised commercial collection management system called "*The Museum System*" specifying that its very design has consequences on the Museum's activity:

"The system is developed for more traditional, stable works and thus represents the single-artist, single-artwork paradigm."

Just as with most UBERMORGEN's works, *No Ghost Just a Shell* didn't fit well within a more traditional software's checkbox format. Such systems only permit either distinguishing all artworks or registering them all as one. In 2008, the museum registrar explained to Van Saaze that a solution to the problem had been found for the Museum, which involved the creation of "work sets" where relations between the works were recorded. The exhibition in the end was attributed with its own inventory number and the works, recorded as single entities, can still be found by referring to the exhibition entry document.

Despite the development of a solution for the preservation of these relations internally, a quick tour around the website of the institution in 2018 suffices to wonder whether the navigation between the several elements within the database could be enhanced. Typing "*No Ghost Just a Shell*", brings up three works and the catalogue from the show. Typing the name of the two initiating artists returns works they made themselves, and typing Ann Lee returns other works from different authors containing Ann Lee within their names.(Fig 2.11-2.12)

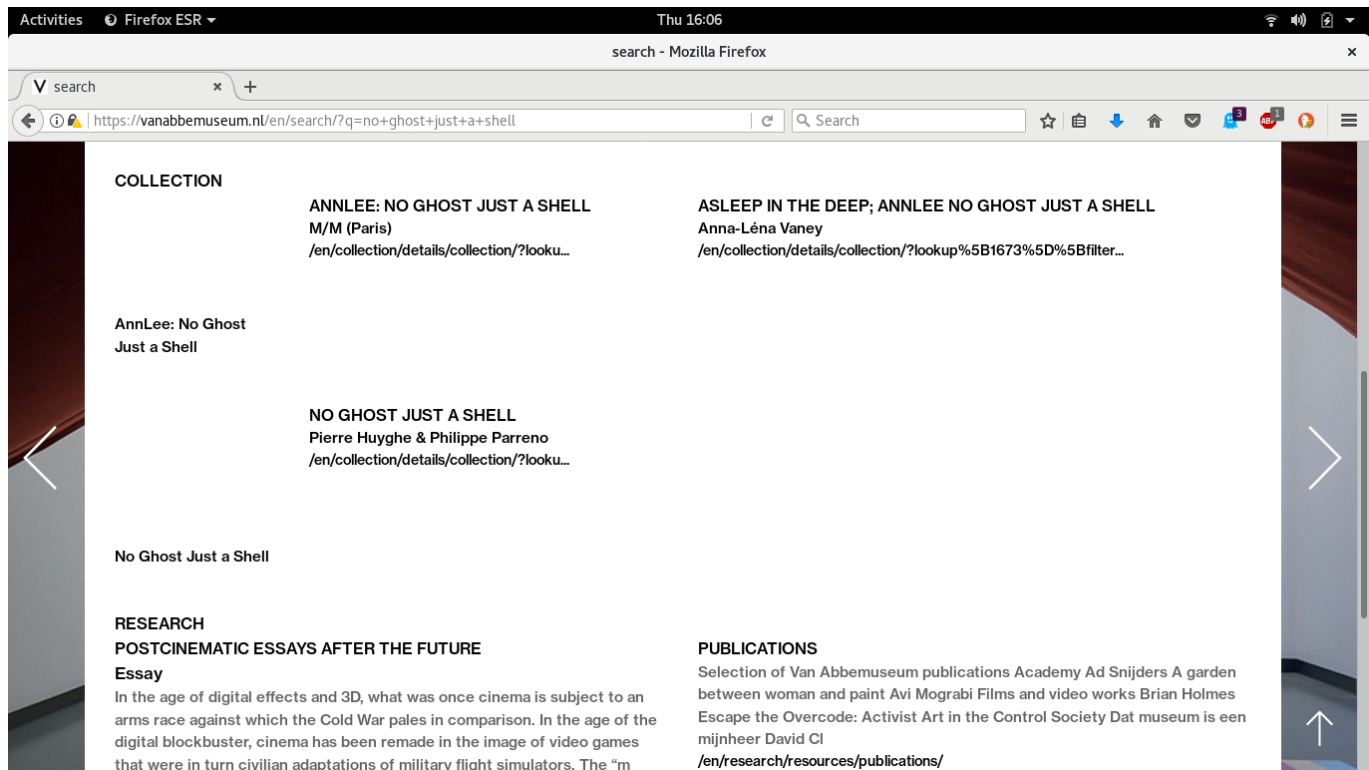


Fig. 2.11 - "No ghost just a shell" query on the Van Abbe Museum's website

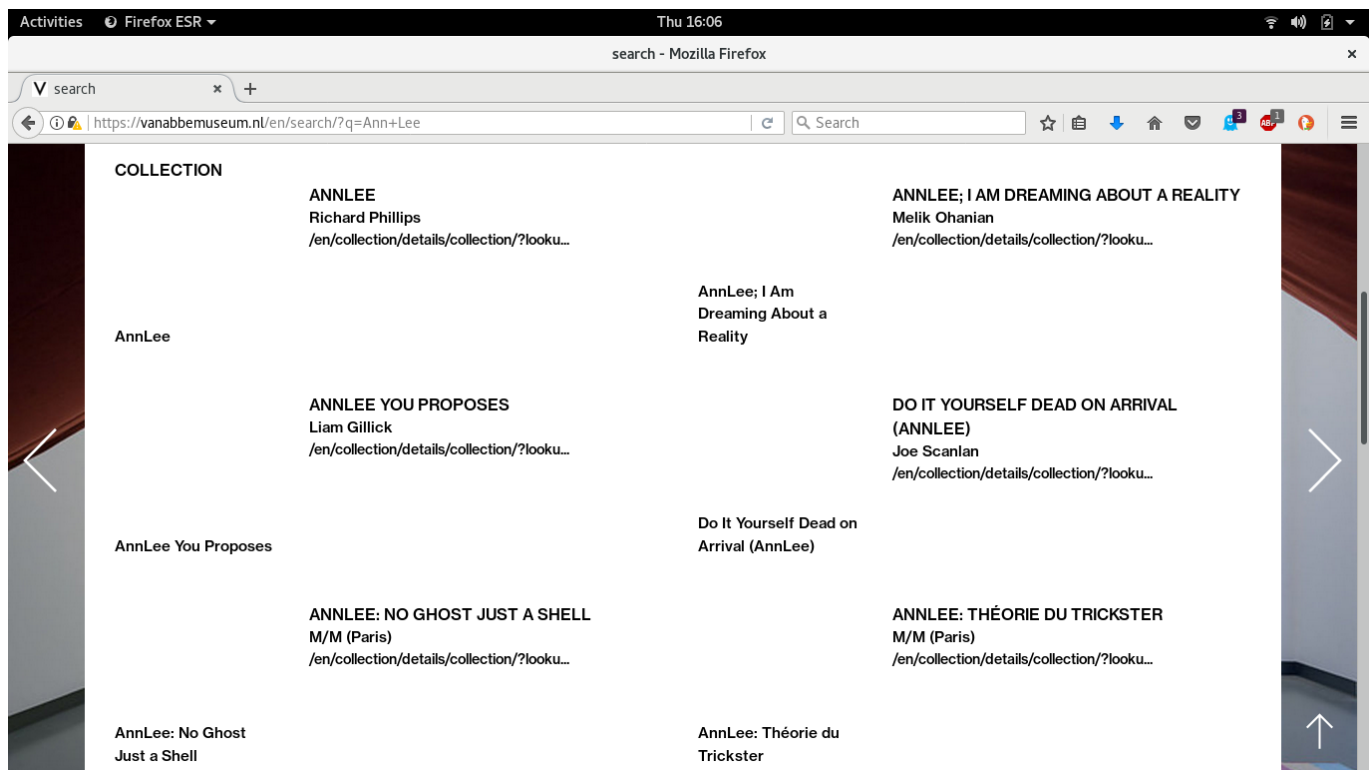


Fig. 2.12 - "Ann Lee" query on the Van Abbe Museum's website

Without prior knowledge of what my initial queries would deliver in terms of the composition and context of *Chinese Gold*, I would not have had the insight to look for all the elements that relate to each other in this work. Or in other words: the relationships or links between the various creations that preexisted their inclusion in the system are not able to be made visible through the system unless the knowledge of these relations is acquired before using the system. This worry was expressed by Van Saaze herself:

"Still, future staff members with less knowledge about the project may be less aware of the relationships among – and the histories of – the Ann-Lee artworks in the collection of the Van Abbemuseum. [...] For now, the curator of collection who is still very much connected to No Ghost Just a Shell fills in the gaps, but what will happen when she is no longer there to clarify, correct or adjust?"

This statement echoes some interrogations I have had myself. Although these software impacts on structuring the collection might not be a problem on the institute's side in the short-term, it might interfere with the work's becoming, as soon as the collection will be in the hands of new caretakers. Also, if the institution ever decides to make their data accessible from the outside, some determinant aspects of

these works might not reflect in the metadata. So the question of system architecture is also a question of transmission of status definition for these works.

In the case of both *Chinese Gold* and *No Ghost Just a Shell* the relations created or to be created, around and within the works, are not a mere detail: they characterise these works. UBERMORGEN themselves make websites on their works which they tend to connect to other works, or around which they add hyperlinks to texts and creations by other parties. It seems that the variability and permeability of these works needs to be addressed by collection management and archival systems. Taking these uncertainties regarding what relationships the artwork has built and may build over time could be accommodated through making metadata easily re-organisable. This would as a consequence, allow for initially “unexpected navigation” between the items to appear over time. By this I mean that navigation between items could evolve as the corpus of works by the artists may grow, a work might not be either a stand alone piece or part of an installation, or even as the status for documentation or works would change. This would mean that software should be developed and adjusted with an acknowledgement of these issues.

Of course this would be a totally different research subject and I have not come up with an answer to it. In the meanwhile, in order to think about what could be done to accommodate the complexities of works such as *Chinese Gold* in archival systems software, I have sketched a (far from complete) document where I compile information gathered on various works by UBERMORGEN in LIMA's archive, under a set of categories where I've tried to make relations apparent (see annexe). In my view, an ideal archive should allow for these categories to evolve and be opened for suggested edits, and perhaps influence navigation between the archive's items.¹⁶

Conclusions

In the beginning of this text I discussed the highly unstable formal shape of *Chinese Gold*, due to its online scattering, its various physical presentation to an audience, and also due to the fact that the work's constituencies, and relations to other pieces made by UBERMORGEN, may evolve over time. The archive provided to me by the artists gave me additional elements to understand that this instability is closely related to the artist's work process, encompassing online exploration, email exchanges and the re-framing information on a topic. Ultimately, what the artists really seem to create is a context, altered by their own subjectivity and curiosity. So in my understanding the several elements that have been exhibited so far could be regarded as an ensemble of “artefacts” (picture series, a video) from the created context, which become an instance of the work once materialised and combined with UBERMORGEN's narrative for an audience.

When LIMA invited me to research the re-exhibition, preservation and distribution of this complex piece, I thought that I would end up with a precise methodology and guidelines that would alleviate an intense workload for the future caretakers of this work. Through my familiarisation with the work it became clear that my quest for a solution had to be reconsidered. There is a lot of uncertainty and third party reliance, online and offline. Looking at the varied assemblages of the work's public presentation made it clear that the work's capacity to adapt to each location, and its requirement for a translation strategy, are characteristic of *Chinese Gold*. The digital context for the work is also unstable, and the amount of content on the work available online also continues to evolve. Thus, I would encourage to not attempt to freeze the work, restore dead links, reproduce past displays, and by doing so envision it as an object. Instead, it feels more appropriate to develop strategies for capturing, documenting and sharing information on its changes over time. This would mean that not only working collaboratively with peers (curators, researchers, institutions) on the production and collection of documents testifying to these changes, but also that the creation of a knowledge base should support and influence the future life of the work.

For the purpose of exploring the feasibility of such an approach to *Chinese Gold*, I have attempted to adapt, create or experiment with interviews, python scripting and version control (using free and open source) software. The regular monitoring of changes and scraping of relevant online content is easily doable¹⁷. Another important step to research the possibilities for collaborative preservation of the work while accounting for its evolution was the use of *Chinese Gold* as a case study for the Collaborative Archiving of Digital Art working group at the Digital Methods winter school. During this session, Free and Open source softwares Git and MediaWiki were used with the aim to experiment with version control and collaboration management. Although both softwares involved a learning curve and had technical limitations (like binary files versioning), the dynamics they created encouraged the collecting of information, experimentation and the production of documents that could be of future interest (such as the forensic analysis of files to extract metadata). The set up of such sessions could be very helpful in

supporting the research and elaboration of preservation strategies. It is also very helpful to get further acquainted with the kind of collective behaviours encouraged by such softwares.

A last point I briefly discussed but didn't fully explore is the question of the archival system. An archival system inherently structures the relations between all the items contained in it but also gets to redefine and materialise the artworks' status for the future archive caretakers or users. With regards to this aspect, I do not know of any system in use that allows for dynamic change in the artworks status over time or with a more flexible division between "document", "artwork", or "event " where an artwork is part of a wider constellation of works while being a piece "in its own right". This problem is not new nor specific to Chinese Gold and might require being given more attention if collaboration has to be enhanced digitally, meaning that data has to be transmitted and thus carefully structured.

Although the case of Chinese Gold, and more globally the work of UBERMORGEN, is quite specific, the many aspects it challenges with regards to its constitution, preservation, presentation and its general status and definition, are transposable to other artworks. Moreover it calls for the development of an adaptability to change, and of a more comfortable attitude towards the performative impact of preservation and curation on the becoming of the work.

Acknowledgements

I would like to thank Gaby Wijers and Sanneke Huisman for their invitation to research the UBERMORGEN case study for LIMA. I would also like to thank Hans Bernhard and Lizvix from UBERMORGEN who kindly provided with the archive from the Chinese Gold project and allowed the researchers team to work from its material during the Digital Methods Winter School at the University of Amsterdam. I am grateful for Annet Dekker's invitation and for the whole Collective Archiving of Digital Art group contribution to the research : Dusan Barok, Judith Harstein, David Gauthier, Megan Phipps, Claudia Röck, Larissa Tijsterman and Jim Wraith. Many thanks to Mila Van Der Weide for the Watnext run through, to Rachel Mills for the editing and Manetta Berends for the py pandoc awesomeness!

1. http://www.ubermorgen.com/2007/projects/Chinese_Gold/ (last accessed 4 November, 2018)↵
2. <http://www.maska2023.org/> (last accessed 4 November, 2018)↵
3. <https://www.youtube.com/watch?v=L2m9LzTkPxg> (last accessed 4 November, 2018)↵
4. <https://northeastofnorth.com/events/chinese-coin/> (last accessed 4 November, 2018)↵
5. <http://www.li-ma.nl/site/sites/default/files/PublicationUbermorgenA3.pdf>↵
6. "2014_CONTEMPORARY_ISTANBUL_HIGH_RES", "IMAGES_FOR_CULTURAS_2008_CATALOGUE" or "NiMK_exhibition"↵
7. http://no-limit.org/pdf/UBERMORGEN_No_Limit_first_Edition_bw.pdf (last accessed 4 November, 2018)↵
8. https://wiki.digitalmethods.net/Dmi/WinterSchool2018CollaborativeArchivingDigitalArt#A_61Networked_47_Processual_art_61 (last accessed 4 November, 2018)↵
9. A paper should be available in the journal of conservation in the beginning of 2019. The paper will expose the details of the experiment and introduce the softwares more thoroughly.↵
10. "From Collaborative Coding to Wedding Invitations: GitHub Is Going Mainstream" : <https://www.wired.com/2013/09/github-for-anything/> (last accessed 4 November, 2018)↵
11. <http://monoskop.org/> (last accessed 4 November, 2018)↵
12. <https://git-lfs.github.com/> (last accessed 4 November, 2018)↵
13. In 2014, the Brussels based graphic design collectif Open Source Publishing made a crowdfunding campaign for the development of an additional tool for Git called "Visual culture", which would have allowed the visualising of differences between versions of files such as images, typefaces and vector drawings. Unfortunately the call didn't attract much attention and the goal money wasn't reached. <https://www.kisskissbankbank.com/en/projects/visual-culture-a-tool-for-design-collaboration-with-git/tabs/description> (last accessed 4 November, 2018)↵
14. In 2012 UBERMORGEN sold a series of 10 mp3s to The House of Electronic Arts under the title "The sound of Ebay", originally a web based work (<http://www.sound-of-ebay.com/>) the sound of Ebay generates MP3 files from eBay user data and presents them as teletext sex adverts. HeK also acquired a licence to show the work including the website, which the artists own and maintain themselves.(last accessed 4 November, 2018)↵
15. <http://krisis.eu/wp-content/uploads/2017/04/2009-1-03-saaze.pdf> (last accessed 4 November, 2018)↵
16. See pdf annexe↵
17. using python and data pulling library Beautiful Soup : <http://www.pythonforbeginners.com/beautifulsoup/> (last accessed 4 November, 2018)↵

ANNEXE DOCUMENTS

Chinese Gold shows

DATE	TITLE & TYPE of SHOW	LOCATION	DESCRIPTION	SELECTION	LINKS	COMMENTS
6 June 2006-?	NA	16 Jevrejska Street, 11000 Belgrade Serbia tel/fax: + 381.11.3284 534; 3284 398; 3284 299	NA	Blue series or MTV series / Maybe Machinima		The Belgrad series was made during Hans' trip for the show. Chinese Gold, Amazon Noir and GWEI were also shown according to artifacts
1 - 16 September 2006	Field of vision : Beijing Collective show	BEIJING NEW ART PROJECTS The Factory 798 Art District, 4 Jiuxianqiao Road, Chaoyang District, Beijing / China	"The Gao Brothers and artists group Digital Art Projects invite you to submit ANY KIND of images and text showing China AS YOU SEE IT, whether you live there or not... All images are printed out postcard size and a selection of about 500 will be assembled on location into a billboard format collage."	Blue series	http://www.field-of-vision.net/Beijing/index_old.htm	Hans and Liz couldn't make the journey, Ge Jing's documentary was shown
21 September 2006- ?	Arteast Collection 2000+23 Collective show	Moderna galerija, Ljubljana (Zdenka Badovinac) Cankarjeva 15, 1000 Ljubljana	"On September the 22th at 20.00 we will open a grand exhibition of project proposals, concepts and ideas for 2023! Next to the proposals we exhibit works from the legendary 2000+ collection. "	Blue series	http://www.maska2023.org/exhibition/moderna_invitation_letter/	Chinese Gold was paired with Irwin retroprincip (2003)

DATE	TITLE & TYPE of SHOW	LOCATION	DESCRIPTION	SELECTION	LINKS	COMMENTS
18 December 2009 - 21 February 2010	Space Invaders Collective show	FACT Gallery 88 Wood Street, Liverpool, L1 4DQ 0151 707 4444	"From minimalist text-based adventure games to the detailed cities of Grand Theft Auto, the computer game environment has progressed towards increasing levels of realism. But what happens when game space and real space are confused? "	Two light box mounted MTV series images + Video projected Machinima (??)	https://www.fact.co.uk/projects/space-invaders.aspx https://www.fact.co.uk/media/5475845/space%20invaders%20gallery%20%20guide.pdf	
28 August - 6 November 2010	Space Invaders Collective show	NIMk / Montevideo Keizersgracht 264 1016 EV Amsterdam Netherlands	"Exploring the increasingly blurred boundaries between video-game space and real space."	Two light box mounted MTV series images + Video projected Machinima	http://www.nimk.nl/eng/space-invaders-text https://www.youtube.com/watch?v=L2m9LzTkPvg	Online video documentation shows items that were not on display during the show
11 October - 16 November 2013	u s e r u n f r i e n d l y Solo show - artists retrospective	Caroll Fletcher 56 - 57 Eastcastle St London W1W 8EQ	"u s e r u n f r i e n d l y is the first solo exhibition in the UK for UBERMORGEN - the Swiss-Austrian-American duo founded in 1999 by lizvlx and Hans Bernhard."	Belgrad series framed	https://www.carrollfletcher.com/exhibitions/19/overview/ https://www.carrollfletcher.com/usr/library/documents/ubermorgencom/um-gallery-guide.pdf	Artists' galerist (at the time)
13-16 November 2014	Contemporary Istanbul Art Fair	?	?	?	?	Found out about this one through the archive

DATE	TITLE & TYPE of SHOW	LOCATION	DESCRIPTION	SELECTION	LINKS	COMMENTS
September 27 - November 8 2017	Cultural Matter presents : UBERMORGEN Solo show - Artwork focus	LIMA Arie Biemondstraat 111 1054 PD Amsterdam The Netherlands +31(0)20 389 20 30 http://www.li-ma.nl	<p>“Within the framework of Cultural Matter, LIMA's new public program, LIMA collaborated with the artist duo UBERMORGEN to research the documentation of complex research-based artworks, their distribution and their (re)presentation to an audience.”</p>	Blue series, most recent Machinima	<p>http://www.li-ma.nl/site/article/cultural-matter-ubermorgen-pt-i http://www.li-ma.nl/site/sites/default/files/PublicationUbermorgenA3.pdf</p>	Chinese Coin was presented alongside

Classification attempt

This is an attempt at gathering data on the different projects and the relations between works, items and context. This try out is not exhaustive nor a thorough experiment, but was rather a way to understand the constellation of works by UBERMORGEN contained within LIMA's archive. I worked around works/projects, and not of the individual objects part of the works (videos, pictures etc) hence the absence of metadata on length, file formats and so on. Such data could be held in other specific files.

```
[
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    "Work": "Red Coin (Chinese Blood)",
    "Date": "2015",
    "Description": "Dystopian depiction of a Chinese Bitcoin Mine",
    "Formats": [
      "video",
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    "Items in archive": [
      "Red Coin (Chinese Blood)"
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    "Urls": [
      "https://vimeo.com/145141943",
      "http://uuuuuuuntitled.com/chinesecoin/ChineseCoin_Text.pdf",
      "http://uuuuuuuntitled.com/chinesecoin/"
    ],
    "Context": [
      "Bitcoin mining",
      "Chinese Bitcoin pools",
      "Tetsuo Iron Man by Shin'ya Tsukamoto",
      "Chinese culture and digital currencies",
      "Vice Chinese Bitcoin Mining Documentary"
    ],
    "Documentation": [],
    "Related to": [
      "Chinese Gold"
    ],
    "Misc": "Commissioned by NEoN (North East of North), 2015",
    "Exhibited at": [
      "ZKM Karlsruhe 2017",
      "Neon Festival 2015",
      "Cultural Matter LIMA Amsterdam 2017"
    ],
    "Locations": [
      "Worked over copy at LIMA",
      "'original' copy at UBERMORGEN Studios",
      "Vimeo"
    ]
  },
  {
    "Work": "Chinese Gold",
    "Date": " 2006 - 2013",
    "Description": "Chinese Gold investigates the phenomenon of Gold mining within World of Warcraft. The project revolves around a partly fictive research into the socio-economic impact of virtual currencies. Chinese Gold spans over a decade and deals with a mix of research, documentation, appropriation, storytelling and remixing. It is constantly evolving, growing and in flux.",
    "Formats": [
      "video",
      "web page",
      "photo series"
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    "Items in archive": [
      "MTV Photo series - 2006",
      "Blue photo series - 2006",
      "Belgrad session - 2006",
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    "Machinima (Bloom)",
    "Machinima (Focus)",
    "UNRELEASED "meme" series 2013"
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  "Urls": "https://vimeo.com/141693496",
  "Context": [
    "Gold mining in MMORPG World of Warcraft in China",
    "Chinese culture and digital currencies"
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  "Documentation": [],
  "Related to": [
    "Chinese Coin"
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  "Misc": "",
  "Exhibited at": [],
  "Locations": []
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{
  "Work": "Infirmière Visiteuse",
  "Date": "2015",
  "Description": "",
  "Formats": [
    "video",
    "story",
    "video transcript"
  ],
  "Items in archive": [],
  "Urls": [
    "https://vimeo.com/137940488",
    "http://no-limit.org/"
  ],
  "Context": [],
  "Documentation": [],
  "Related to": [
    "No-limit series",
    "Glowing dysfunction",
    "Simon",
    "Zoe",
    "Anna",
    "Blütenweisser Raum",
    "Family saga",
    "Andrea and Olivia",
    "Black Ink",
    "Nice Vanilla Latte"
  ],
  "Misc": "",
  "Exhibited at": [
    "Kasseler Kunstverein, Kassel"
  ],
  "Locations": []
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{
  "Work": "Nice Vanilla Latte",
  "Date": "2015",
  "Description": "",
  "Formats": [
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    "story",
    "video transcript"
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  "Items in archive": [],
  "Urls": [
    "https://vimeo.com/137939689",
    "http://no-limit.org/"
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  "Context": [
    "Elliot Rodger Santa Barbara shootings",
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  "Anna",
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  "Family saga",
  "Andrea and Olivia",
  "Black Ink",
  "Infirmière visiteuse"
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  "Avalanche, London"
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  "Date": "2014",
  "Description": "",
  "Formats": [
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    "web page"
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  "Items in archive": [],
  "Urls": [
    "https://vimeo.com/68214349",
    "http://www.ipnic.org/superenhanced/",
    "http://ipnic.org/superenhanced/perpetrator/"
  ],
  "Context": [
    "Guantánamo guards suffer psychological trauma",
    "guantanamo bay murders disguised as suicides"
  ],
  "Documentation": [],
  "Related to": [
    "Superenhanced series",
    "Torture Classics",
    "Superenhanced",
    "Superenhanced generator"
  ],
  "Misc": "",
  "Exhibited at": [],
  "Locations": []
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  "Work": "DOTOILDOT",
  "Date": " 2011",
  "Description": "Intervention in a petrol station and advertising campaign. 'DOTOILDOT pays respect to the dark underground, to luxury and wealth and to the thousands of pure diamonds drilling deep into our mother earth's womb to spill the black blood of organic life populating our planet millions of years ago. A new age of energy will rise from the ashes. The dawn of a new era! Chinese single children will drink oil like vampires drink the blood of their creators. Make each drop count!'",
  "Formats": [
    "website",
    "Manifesto",
    "photo series",
    "gifs",
    "poster series",
    "videos",
    "web animation/game"
  ],
  "Items in archive": [

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    "Dotoildot (Campaign, Korean), 2012",
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    "Dotoildot (Be Soft!), 2012"
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  "Urls": [
    "https://vimeo.com/27434890",
    "https://vimeo.com/14776363",
    "https://vimeo.com/18748573",
    "http://www.dotoildot.com/X/index.html"
  ],
  "Context": [
    "Diesel be bad",
    "Terry Richardson fashion advertising campaigns",
    "rules for successful living campaign"
  ],
  "Documentation": [],
  "Related to": [
    "Kraft series",
    "Deephorizon",
    "School of energy",
    "Let's go"
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  "Misc": "",
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  "Work": "Deephorizon",
  "Date": " 2010-2012",
  "Description": "An oil painting on a 80.000 square miles ocean canvas with 800 million liters of oil - a unique piece of art. These paintings represent the 'Verkuenstlichung' of nature and the \"Vernaturlichung\" of art.",
  "Formats": [
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    "web page",
    "Manifesto",
    "image series"
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    "Deephorizon - 2010",
    "Deephorizon (Variation 2), 2012"
  ],
  "Urls": [
    "https://vimeo.com/19480649",
    "http://www.deeeeeeehorizon.com/"
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  "Context": [
    "Deephorizon oil spill",
    "aerial imagery methods"
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  "Documentation": [],
  "Related to": [
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    "DOTOILDOT",
    "School of energy",
    "Let's go"
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  "Work": "Torture classics",
  "Date": "2011",
  "Description": "",
  "Formats": [
    "website",
    "videos",
    "performance"
  ]
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  "Tortureclassics (Infomercial), 2011",
  "TORTURE CLASSICS - PERFORMANCE SOUTH KOREA(L0-RES 80522f47-6a5f-4d03-85cf-ace7bcbe02c0)",
  "TORTURE CLASSICS (f0999eba-c194-4bd8-aae9-d17e6ebd223b)",
  "TORTURECLASSICS (From Britney to Barney)"
],
"Urls": [
  "https://vimeo.com/22942044",
  "https://vimeo.com/24348109",
  "http://tortureclassics.com/",
  "http://www.ipnic.org/superenhanced/"
],
"Context": [
  "CIA music torture",
  "trendy CD's with "best" "classics" of whatever music genre"
],
"Documentation": [],
"Related to": [
  "Superenhanced series",
  "Perpetrator",
  "Superenhanced",
  "Superenhanced generator"
],
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"Exhibited at": [],
"Locations": []
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  "Work": "Clickistan",
  "Date": " 2010",
  "Description": "",
  "Formats": [
    "website",
    "video documentation"
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  "Items in archive": [
    "Clickistan video game, 2011"
  ],
  "Urls": [
    "https://vimeo.com/21402948",
    "http://whitney.org/www/clickistan/home.html"
  ],
  "Context": [
    "gamification of charity"
  ],
  "Documentation": [],
  "Related to": [],
  "Misc": "Whitney New York Commission",
  "Exhibited at": [],
  "Locations": []
},
{
  "Work": "The sound of Ebay",
  "Date": " 2008",
  "Description": "Personal data from Ebay accounts are turned into music through an online application",
  "Formats": [
    "Website",
    "Video documentation",
    "recorded mp3"
  ],
  "Items in archive": [
    "The Sound of eBay (korte versie)",
    "The Sound of eBay"
  ],
  "Urls": [
    "http://www.sound-of-ebay.com"
  ],

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"Context": [],
"Documentation": [],
"Related to": [
  "GWEI",
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  "Date": "2015",
  "Description": "",
  "Formats": [
    "Advert campaign (video, )",
    "recorded news coverage (RT)",
    "Website"
  ],
  "Items in archive": [
    "Intelexit (D)",
    "Intelexit (E)"
  ],
  "Urls": [
    "https://intelexit.org/"
  ],
  "Context": [
    "Edward Snowden's revelations"
  ],
  "Documentation": [],
  "Related to": [
    "Übermorgen interview with snowden",
    "Do You Think That's Funny? (The Snowden Files)",
    "Sandra Baierl"
  ],
  "Misc": "",
  "Exhibited at": [],
  "Locations": []
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  "Date": " 2000",
  "Description": "(fictional) Web platform capitalising in USA election votes reselling",
  "Formats": [
    "Website",
    "Legal documents",
    "logotype",
    "News coverage (CNN)",
    "legal injunctions"
  ],
  "Items in archive": [
    "[V]ote-Auction's 27 min. on CNN \"Burden of Proof\""
  ],
  "Urls": [
    "https://vimeo.com/19218313 ",
    "http://www.vote-auction.net"
  ],
  "Context": [
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    "United states electoral college system issues"
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  "Documentation": [],
  "Related to": [],
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