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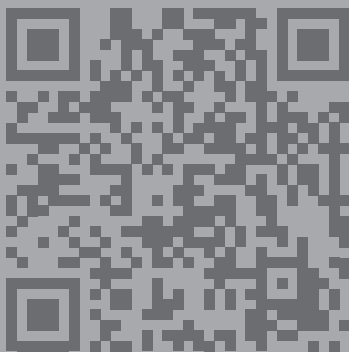ARTS, SCIENCES AND TECHNOLOGY
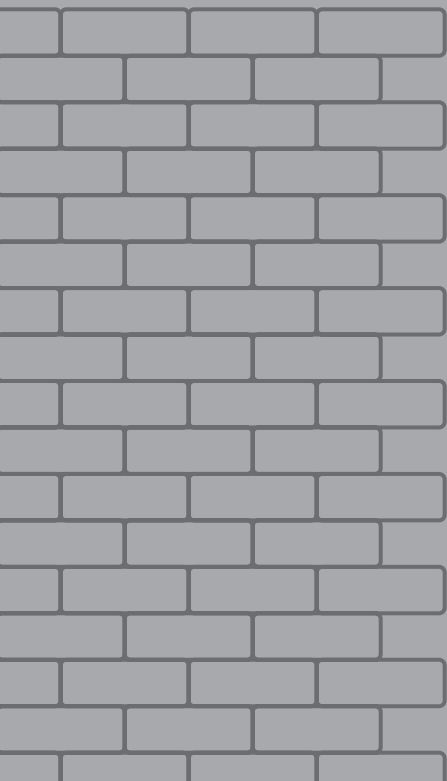
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## LEONARDO ELECTRONIC ALMANAC

**VOL 19 NO 2**  VOLUME EDITORS **LANFRANCO ACETI** AND **RICHARD RINEHART**
EDITORS **ÖZDEN ŞAHİN**, **JONATHAN MUNRO** AND **CATHERINE M. WEIR**
This LEA publication has a simple goal: surveying the current trends in augmented reality artistic interventions. There is no other substantive academic collection currently available, and it is with a certain pride that LEA presents this volume which provides a snapshot of current trends as well as a moment of reflection on the future of AR interventions.
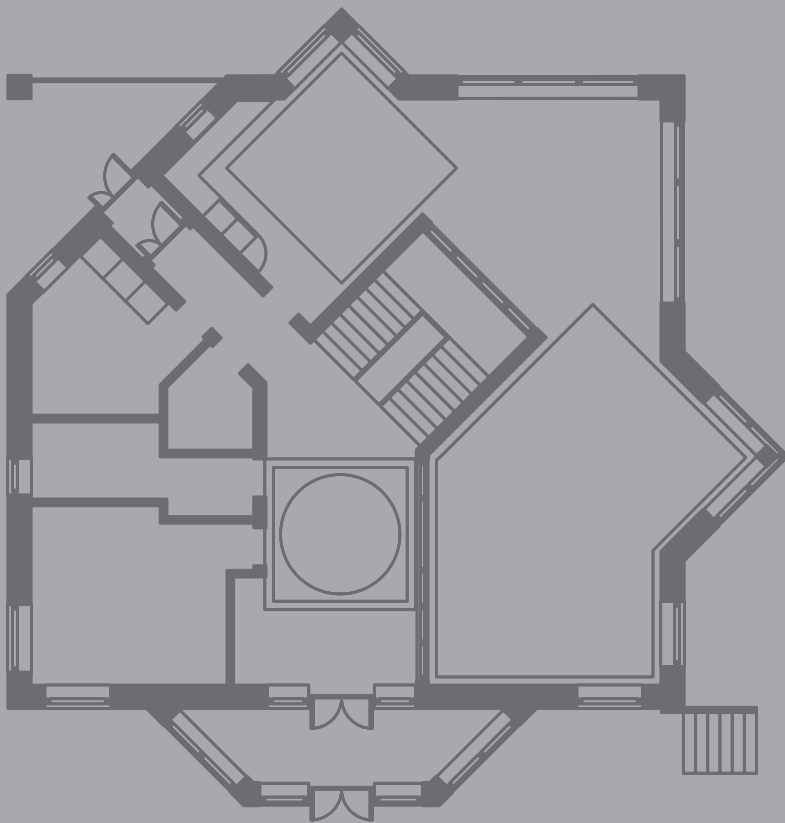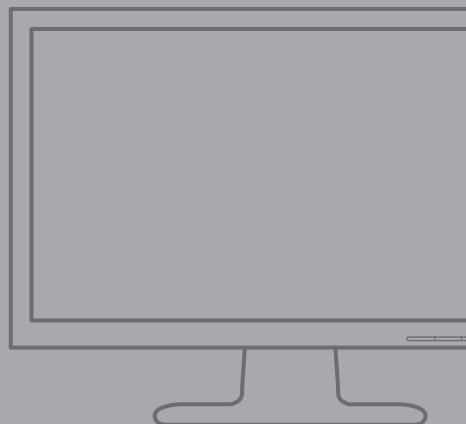
NOT HERE

NOT THERE

LEONARDO ELECTRONIC ALMANAC, VOLUME 19 ISSUE 2

# Not Here Not There

VOLUME EDITORS
**LANFRANCO ACETI AND RICHARD RINEHART**

EDITORS
**ÖZDEN ŞAHİN, JONATHAN MUNRO AND CATHERINE M. WEIR**

# Not Here, Not There: An Analysis Of An International Collaboration To Survey Augmented Reality Art

**Every published volume has a reason, a history, a conceptual underpinning as well as an aim that ultimately the editor or editors wish to achieve.** There is also something else in the creation of a volume; that is the larger goal shared by the community of authors, artists and critics that take part in it.

This volume of LEA titled *Not Here, Not There* had a simple goal: surveying the current trends in augmented reality artistic interventions. There is no other substantive academic collection currently available, and it is with a certain pride that both, Richard Rinehart and myself, look at this endeavor. Collecting papers and images, answers to interviews as well as images and artists' statements and putting it all together is perhaps a small milestone; nevertheless I believe that this will be a seminal collection which will showcase the trends and dangers that augmented reality as an art form faces in the second decade of the XXIst century.

As editor, I did not want to shy away from more critical essays and opinion pieces, in order to create a documentation that reflects the status of the current thinking. That these different tendencies may or may not be proved right in the future is not the reason for the collection, instead what I believe is important and relevant is to create a historical snapshot by focusing on the artists and authors developing artistic practices and writing on augmented reality. For this reason, Richard and I posed to the contributors a series of questions that in the variegated responses of the artists and authors will evidence and stress similari-

ties and differences, contradictions and behavioral approaches. The interviews add a further layer of documentation which, linked to the artists' statements, provides an overall understanding of the hopes for this new artistic playground or new media extension. What I personally wanted to give relevance to in this volume is the artistic creative process. I also wanted to evidence the challenges faced by the artists in creating artworks and attempting to develop new thinking and innovative aesthetic approaches.

The whole volume started from a conversation that I had with Tamiko Thiel – that was recorded in Istanbul at Kasa Gallery and that lead to a curatorial collaboration with Richard. The first exhibition *Not Here* at the Samek Art Gallery, curated by Richard Reinhart, was juxtaposed to a response from Kasa Gallery with the exhibition *Not There*, in Istanbul. The conversations between Richard and myself produced this final volume – *Not Here, Not There* – which we both envisaged as a collection of authored papers, artists' statements, artworks, documentation and answers to some of the questions that we had as curators. This is the reason why we kept the same questions for all of the interviews – in order to create the basis for a comparative analysis of different aesthetics, approaches and processes of the artists that work in augmented reality.

When creating the conceptual structures for this collection my main personal goal was to develop a link – or better to create the basis for a link – between ear-

lier artistic interventions in the 1960s and the current artistic interventions of artists that use augmented reality.

My historical artist of reference was Yayoi Kusama and the piece that she realized for the Venice Biennial in 1966 titled *Narcissus Garden*. The artwork was a happening and intervention at the Venice Biennial; Kusama was obliged to stop selling her work by the biennial's organizers for 'selling art too cheaply.'

"In 1966 [...] she went uninvited to the Venice Biennale. There, dressed in a golden kimono, she filled the lawn outside the Italian pavilion with 1,500 mirrored balls, which she offered for sale for 1,200 lire apiece. The authorities ordered her to stop, deeming it unacceptable to 'sell art like hot dogs or ice cream cones.'" [1]

The conceptualization and interpretation of this gesture by critics and art historians is that of a guerrilla action that challenged the commercialization of the art system and that involved the audience in a process that revealed the complicit nature and behaviors of the viewers as well as use controversy and publicity as an integral part of the artistic practice.

Kusama's artistic legacy can perhaps be resumed in these four aspects: a) engagement with audience's behaviors, b) issues of art economy and commercialization, c) rogue interventions in public spaces and d) publicity and notoriety.

These are four elements that characterize the work practices and artistic approaches – in a variety of combinations and levels of importance – of contem-

porary artists that use augmented reality as a medium. Here, is not perhaps the place to focus on the role of 'publicity' in art history and artistic practices, but a few words have to be spent in order to explain that publicity for AR artworks is not solely a way for the artist to gain notoriety, but an integral part of the artwork, which in order to come into existence and generate interactions and engagements with the public has to be communicated to the largest possible audience.

"By then, Kusama was widely assumed to be a publicity hound, who used performance mainly as a way of gaining media exposure." [2] The publicity obsession, or the accusation of being a 'publicity hound' could be easily moved to the contemporary group of artists that use augmented reality. Their invasions of spaces, juxtapositions, infringements could be defined as nothing more than publicity stunts that have little to do with art. These accusations would not be just irrelevant but biased – since – as in the case of Sander Veenhof's analysis in this collection – the linkage between the existence of the artwork as an invisible presence and its physical manifestation and engagement with the audience can only happen through knowledge, through the audience's awareness of the existence of the art piece itself that in order to achieve its impact as an artwork necessitates to be publicized.

Even if, I do not necessarily agree with the idea of a 'necessary manifestation' and audience's knowledge of the artwork – I believe that an artistic practice that is unknown is equally valid – I can nevertheless understand the process, function and relations that have to be established in order to develop a form of engagement and interaction between the AR artwork and the audience. To condemn the artists who seek publicity

in order to gather audiences to make the artworks come alive is perhaps a shortsighted approach that does not take into consideration the audience's necessity of knowing that interaction is possible in order for that interaction to take place.

What perhaps should be analyzed in different terms is the evolution of art in the second part of the XXth century, as an activity that is no longer and can no longer be rescinded from publicity, since audience engagement requires audience attendance and attendance can be obtained only through communication / publicity. The existence of the artwork – in particular of the successful AR artwork – is strictly measured in numbers: numbers of visitors, numbers of interviews, numbers of news items, numbers of talks, numbers of interactions, numbers of clicks, and, perhaps in a not too distant future, numbers of coins gained. The issue of being a 'publicity hound' is not a problem that applies to artists alone, from Andy Warhol to Damien Hirst from Banksy to Maurizio Cattelan, it is also a method of evaluation that affects art institutions and museums alike. The accusation moved to AR artists of being media whores – is perhaps contradictory when arriving from institutional art forms, as well as galleries and museums that have celebrated publicity as an element of the performative character of both artists and artworks and an essential element instrumental to the institutions' very survival.

The publicity stunts of the augmented reality interventions today are nothing more than an acquired methodology borrowed from the second part of the XXth century. This is a stable methodology that has already been widely implemented by public and private art institutions in order to promote themselves and their artists.

Publicity and community building have become an artistic methodology that AR artists are playing with by

making use of their better knowledge of the AR media. Nevertheless, this is knowledge born out of necessity and scarcity of means, and at times appears to be more effective than the institutional messages arriving from well-established art organizations. I should also add that publicity is functional in AR interventions to the construction of a community – a community of aficionados, similar to the community of 'nudists' that follows Spencer Tunic for his art events / human installation.

I think what is important to remember in the analysis of the effectiveness both in aesthetic and participatory terms of augmented reality artworks – is not their publicity element, not even their sheer numbers (which, by the way, are what has made these artworks successful) but their quality of disruption.

The ability to use – in Marshall McLuhan's terms – the medium as a message in order to impose content bypassing institutional control is the most exciting element of these artworks. It is certainly a victory that a group of artists – by using alternative methodological approaches to what are the structures of the capitalistic system, is able to enter into that very capitalistic system in order to become institutionalized and perhaps – in the near future – be able to make money in order to make art.

Much could be said about the artist's need of fitting within a capitalist system or the artist's moral obligation to reject the basic necessities to ensure an operational professional existence within contemporary capitalistic structures. This becomes, in my opinion, a question of personal ethics, artistic choices and existential social dramas. Let's not forget that the vast majority of artists – and AR artists in particular – do not have large sums and do not impinge upon national budgets as much as banks, financial institutions, militaries and corrupt politicians. They work for years

1. David Pilling, "The World According to Yayoi Kusama," *The Financial Times*, January 20, 2012, http://www.ft.com/cms/s/2/52ab168a-4188-11e1-8c33-00144feab49a.html#axzz1kDck8rzm (accessed March 1, 2013).

2. Isabelle Loring Wallace and Jennie Hirsh, *Contemporary Art & Classical Myth* (Farnham; Burlington, VT: Ashgate, 2011), 94.

with small salaries, holding multiple jobs and making personal sacrifices; and the vast majority of them does not end up with golden parachutes or golden hand-shakes upon retirement nor causes billions of damage to society.

The current success of augmented reality interventions is due in small part to the nature of the medium. Museums and galleries are always on the lookout for 'cheap' and efficient systems that deliver art engagement, numbers to satisfy the donors and the national institutions that support them, artworks that deliver visibility for the gallery and the museum, all of it without requiring large production budgets. Forgetting that art is also about business, that curating is also about managing money, it means to gloss over an important element – if not the major element – that an artist has to face in order to deliver a vision.

Augmented reality artworks bypass these financial challenges, like daguerreotypes did by delivering a cheaper form of portraiture than oil painting in the first part of the XIXth century, or like video did in the 1970s and like digital screens and projectors have done in the 1990s until now, offering cheaper systems to display moving as well as static images. AR in this sense has a further advantage from the point of view of the gallery – the gallery has no longer a need to purchase hardware because audiences bring their own hardware: their mobile phones.

The materiality of the medium, its technological revolutionary value, in the case of early augmented reality artworks plays a pivotal role in order to understand its success. It is ubiquitous, can be replicated everywhere in the world, can be installed with minimal hassle and can exist, independently from the audience, institutions and governmental permissions. Capital costs for AR installations are minimal, in the order of a few

hundred dollars, and they lend themselves to collaborations based on global networks.

Problems though remain for the continued success of augmented reality interventions. Future challenges are in the materialization of the artworks for sale, to name an important one. Unfortunately, unless the relationship between collectors and the 'object' collected changes in favor of immaterial objects, the problem to overcome for artists that use augmented reality intervention is how and in what modalities to link the AR installations with the process of production of an object to be sold.

Personally I believe that there are enough precedents that AR artists could refer to, from Christo to Marina Abramovich, in order develop methods and frameworks to present AR artworks as collectable and sellable material objects. The artists' ability to do so, to move beyond the fractures and barriers of institutional vs. revolutionary, retaining the edge of their aesthetics and artworks, is what will determine their future success.

These are the reasons why I believe that this collection of essays will prove to be a piece, perhaps a small piece, of future art history, and why in the end it was worth the effort.

**Lanfranco Aceti**
*Editor in Chief, Leonardo Electronic Almanac*
*Director, Kasa Gallery*

# Site, Non-site, and Website

In the 1960's, artist Robert Smithson articulated the strategy of representation summarized by "site vs. non-site" whereby certain artworks were simultaneously abstract and representational and could be site-specific without being sited. A pile of rocks in a gallery is an "abstract" way to represent their site of origin. In the 1990's net.art re-de-materialized the art object and found new ways to suspend the artwork online between website and non-site. In the 21st century, new technologies suggest a reconsideration of the relationship between the virtual and the real. "Hardlinks" such as QR codes attempt to bind a virtual link to our physical environment.

Throughout the 1970's, institutional critique brought political awareness and social intervention to the site of the museum. In the 1980's and 90's, street artist such as Banksy went in the opposite direction, critiquing the museum by siting their art beyond its walls.

Sited art and intervention art meet in the art of the trespass. What is our current relationship to the sites we live in? What representational strategies are contemporary artists using to engage sites? How are sites politically activated? And how are new media framing our consideration of these questions? The contemporary art collective ManifestAR offers one answer,

> "Whereas the public square was once the quintessential place to air grievances, display solidarity, express difference, celebrate similarity, remember, mourn, and reinforce shared values of right and wrong, it is no longer the only anchor for interactions in the public realm. That geography has been relocated to a novel terrain, one that encourages exploration of mobile location based monuments,

and virtual memorials. Moreover, public space is now truly open, as artworks can be placed anywhere in the world, without prior permission from government or private authorities – with profound implications for art in the public sphere and the discourse that surrounds it."

ManifestAR develops projects using Augmented Reality (AR), a new technology that – like photography before it – allows artists to consider questions like those above in new ways. Unlike Virtual Reality, Augmented Reality is the art of overlaying virtual content on top of physical reality. Using AR apps on smart phones, iPads, and other devices, viewers look at the real world around them through their phone's camera lens, while the app inserts additional images or 3D objects into the scene. For instance, in the work *Signs over Semiconductors* by Will Pappenheimer, a blue sky above a Silicon Valley company that is "in reality" empty contains messages from viewers in skywriting smoke when viewed through an AR-enabled Smartphone.

AR is being used to activate sites ranging from Occupy Wall Street to the art exhibition ManifestAR @ ZERO1 Biennial 2012 – presented by the Samek Art Gallery simultaneously at Bucknell University in Lewisburg, PA and at Silicon Valley in San Jose, CA. From these contemporary non-sites, and through the papers included in this special issue of LEA, artists ask you to reconsider the implications of the simple question *wayn* (where are you now?)

**Richard Rinehart**
*Director, Samek Art Gallery, Bucknell University*

**Leonardo Electronic Almanac**
**Volume 19 Issue 2**

# Invisible
# In your face

*by*

## SANDER VEENHOF

http://sndrv.nl

**Augmented reality (AR) has unprecedentedly exten-
ded contemporary artist's horizon in multiple ways
enlarging the possibility and opportunity for crea-
tive actions.** AR opened up a new hybrid dimension
to explore, with infinite possibilities in terms of size,
complexity and spatial reach of artists' virtual creati-
ons, but it allows for the crossing of former physical
limitations; such as country borders or museum walls.
With the freedom of not having to alter the physical
space to put up any markers, GPS-based augmented
reality delivers the power to do and make anything
anywhere. However, the impact of such virtual crea-

A  B  S  T  R  A  C  T

*As the practitioners of 'AR interventions' have been exploring different
ways to make their AR experiences impactful without being dependent
on modifications in the physical space,* what are the strategies they use
to overcome the intrinsic invisible nature of GPS-based augmented reality?
Is there a future for the phenomenon of the AR Intervention and if so what
kinds of future interventions are to be expected?



*Virtual traffic light*, 2011, Sander Veenhof.
Medium: Layar augmented reality at
Terschelling, The Netherlands,
(design and photo collage by Sander
Veenhof). © Sander Veenhof, 2011.

tions and additions does not come naturally as GPS-
based AR artworks are simultaneously present and
not present. Since they remain invisible so long as no
device is pointed at them, a smart strategy needs to
be deployed to bring their presence to the attention
of the audience. In order to achieve a crucial level of
(local) awareness and/or publicity, the parallel virtual
reality needs to be relevant to its real world location.
Relevance might lead to publicity, and publicity helps
bring the otherwise invisible phenomena to life, allo-
wing them the possibility of making an impact on the
world in which they appear. This impact then in turn
leads to further publicity, creating a circular cause and
effect loop, which necessitates one of these elements
as a trigger to get the cycle started. This cycle can
be described as follows: Impact-Publicity-Awareness-
Interaction-Visibility-Interference-Publicity.

The augmented reality artwork has to establish a true
impact, one that reaches beyond a virtual addition
layered on top of a live representation of reality on a
smart-phone, is extremely challenging for concepts
that are fully virtual. This is especially true of many so-
called 'virtual interventions' that are not supported or
guided by any adaptations in the physical space.

Proving that it is not impossible to have a virtual ob-
ject exercising direct influence in to the physical world,
was the aim of the worlds' 1st *Virtual traffic light* [1] in-
stalled in the Dutch island of Terschelling in The Net-
herlands. Strategically positioned along a narrow bike
lane, it aimed to cause a small chain reaction whene-
ver one single person would notice the virtual traffic
light, and stop for its red sign. If it succeeded in arou-
sing the curiosity of other passersby, causing them to
stop, meaning the bike lane would quickly be blocked;
and the virtual traffic light would become a functional
one. In becoming a functional traffic light, it operated
for everyone on the bike path; regardless of whether
of not they had access to the light's virtual world.

Since it is difficult for such works to have an imme-
diate impact, the usual approach is to initially gather
publicity. Since augmented reality is a relatively new
domain to be explored there are many opportunities
to do something for the first time, which is advanta-
geous given that, generally, press and bloggers tend
to write about things happening for the first time. For
example, organizing an uninvited, full-scale guerrilla
exhibition within a museum building, as done by San-
der Veenhof and Mark Skwarek in October 2010 in
the MoMA museum, New York. [2]

The placement of additional artworks by thirty fellow artists spread across the museum was a success because of viral publicity beforehand, which took off because of the foreseeable relevance of the planned exhibition and the new insights it would provide on issues related to the use and ownership of space. The exhibition did not only provide these insights, nor did it simply augment reality in a visual way: it actually changed the organizational reality of the (art) world. Even though, autonomous interventions into museums have been an art practice for decades, this intervention marked a new situation. Not only did the show occupy all six floors of the museum, as well as a newly installed virtual seventh floor, but it was new in the sense that the works could not be removed from the museum. Furthermore, the MoMA had no way to prevent the exhibition's unofficial opening, short of prohibiting all iPhone use on that particular day.

The exhibition could have been stopped only if MoMA would have prohibited iPhone usage. But what if the audience would have worn Google Goggles or even unobtrusive AR contact lenses? The organizers of *We AR in MoMA* decided to give the show an indefinite duration, letting it become part of the permanent col-

lection of the museum. This signaled that the control over museum content has shifted. Everybody is in control, as viewer or as creator.

One of the undeniable outcomes of the MoMA show, is that it has led to the formation of an artists collective Manifest.AR, consisting of likeminded artists working within the global virtual domain. Besides this, an unproven effect could be that the show delivered a boost to the phenomenon of virtual interventions. To effectuate their launched manifesto, it seemed obvious to Manifest.AR that the 54th Venice Biennale had to be the next event in line for an AR intervention, extending it with an augmented reality pavilion [3] to mark once more the rise of a new space, one not under the control of any one country. While preparing this follow-up event, it appeared that many groups and individuals were planning similar activities; The Invisible Pavilion, Venice Augmented, The ARsenal are just a few examples of the many other interventions announced. It triggered artist Sander Veenhof to act on this, initiating an intervention within the intervention by spreading flyers calling visitors to "STOP the virtual infiltration of the 54th Biennale." A fully incomprehensible act to people who at the time were not even



*STOP the virtual infiltration of the 54th Biennial*, 2011, Sander Veenhof. Medium: flyers at the 54th Venice Biennale, (design and photo by Sander Veenhof). © Sander Veenhof, 2011.



*We AR in MoMA*, 2010, Sander Veenhof & Mark Skwarek. Format: uninvited exhibition on 6 floors and virtual 7th floor of MoMA NY, (photocollage by Sander Veenhof). © Sander Veenhof, 2010.
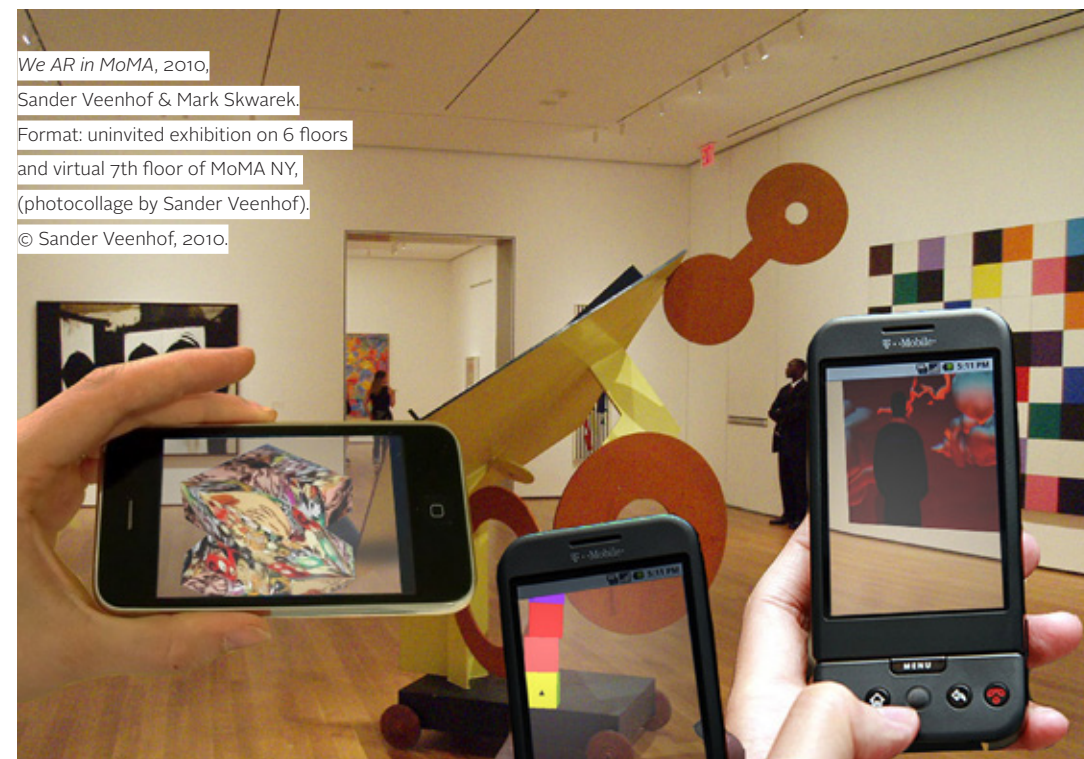
aware of the on going massive virtual intervention, since the act occurred within a visual arts context and not a tech-art context, this level of incomprehensibility was acceptable. The flyer included the sincere sounding statement "Art should be real," to initiate a discussion on that crucial aspect of AR art. In view of the fact that many people tend to confuse the terms 'materiality' and 'real,' the question as to whether virtual art is real is surrounded by controversy. The virtual artworks at the 54th Biennale were really there, not elsewhere. In cooperation with Les Liens Invisible, Manifest.AR was there organising tours along the various artworks existing in numerous parallel virtual universes, available through various apps and platforms.

If something was worth campaigning against, it should have been the unstoppable growth of new platforms and alternate realities. AR is the new 2.0; it is the Second Life of the past. Art institutes have embraced AR and are joining the "first app to do this" quest, while at the same time the commercial world is constantly creating new virtual spaces. A fresh new browser and corresponding augmented world is being launched

almost every month. The rise in popularity of the augmented reality phenomenon goes hand in hand with a decline of its impact. With so many parallel realities, the importance of each individual outing in any of the realities is waning. Besides the many functional uses of AR for small niche groups, what is the future of the medium as a mechanism for activist purposes? It risks losing the capabilities for that. What about virtual interventions into political domains or addressing issues such as workers' rights within a semi-public domain such as Apple's iOS platform, with seemingly endless growth and a closed ecosystem? [4] Can augmented reality interventions of the future still be relevant enough to create a real impact and cause real trouble?

It would be a positive sign for AR in general if a troublemaker were to succeed in provoking some legal action as a result of an AR intervention, but currently that seems highly unlikely. Paradoxically, the same can be said for the chances of the suing party winning such a case. What does a GPS spot actually hold? The spot itself is just a combination of two innocent floating point numbers, while the specific data attached

to it, be it a JPEG image or 3D rendering, can only be experienced with a certain piece of software. How does the suing party begin to construct a case? Can the publishers of AR browsers be held responsible if a company or organization objects to the positioning of certain material in their backyard or within their premises? Can AR platforms be forced to remove content? What if augments and GPS-locations could be offered as separate components, as DIY packages to users? What if augments, created by anonymous creators, reside on unknown servers, accessed through torrent-based peer-to-peer networks? Will individuals be prosecuted for viewing, or placing, anti-commercial, anti-governmental or other sorts of 'inappropriate' content at the 'wrong' location? That in turn then raises the question of what is inappropriate content? An in-depth court case would be a very welcome way to find the answer to all of these questions in an empirical way. The Internet is full of material that is considered to be on the edge, but not illegal or forbidden. What if all that content is taken to the street? Such a move would be significant and perhaps provoke censoring requests if there were only one single shared virtual parallel universe, but at this moment there is not yet one major provider of an ultimately relevant global AR universe.

Google seems to be the best-equipped candidate to be taking up that position as they already know in great detail how our world looks in terms of 3D geometry. The recent announcement of their AR goggles is an indication they are getting ready, but do we want Google to be the sole entity controlling our global hybrid space? Selling advertisements and deciding what content we can see, and what not?

The experience of Facebook shows how we reluctantly had to accept that one commercial company has become the de facto ruler of our online social universe, or should we even skip 'online'? A situation is looming similar to that we can already see with Facebook, where we have come to accept one commercial company as the de facto ruler of our online social universe. It is too late to make any radical changes, but in terms of the global AR space there is still ample time to make radical changes. At the moment, there are too many alternative realities, which is not good. Soon, there might just be one relevant parallel reality, but

this situation is equally undesirable. It is time then for a new intervention from the AR community, and it has to be soon. It is time to intervene on the meta-level, to develop an alternative model as the basis for a crowd driven parallel virtual society; one which could co-exist alongside a commercial giant that will undoubtedly rise to rule over our virtual surroundings. For now the virtual world is an invisible space, but it is undoubtedly a fundamental part of the semi digital world of the future. The virtual space should remain open to creative input by anyone, it should be uncensored, governed democratically and ruled by people's common digital sense. Designed as a world of GPS-encoded augments stored on peer-to-peer networks, it will ensure the alternative virtual universe shall never be bought or integrated into a competing commercial reality, safeguarding the space to keep creating invisible augmented reality interventions – in your face. ∎

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# SANDER VEENHOF

*interviewed by*
*Lanfranco Aceti & Richard Rinehart*

**Is there an 'outside' of the Art World from which to launch critiques and interventions? If so, what is the border that defines outside from inside? If it is not possible to define a border, then what constitutes an intervention and is it possible to be and act as an outsider of the art world? Or are there only different positions within the Art World and a series of positions to take that fulfill ideological parameters and promotional marketing and branding techniques to access the fine art world from an oppositional, and at times confrontational, standpoint?**

For a long time, there has been a thriving art scene beyond the walls of the museum and art institutions. Still, the brick walls of the museum were symbolic in defining what should be considered art: what was worth seeing and what was not. Street art has been taken out of its context and brought into the museum. Uninvited additions of artworks in to the museum have been taking place for a long time but it was the institution and the curator within it to decide what deserved to be preserved. With augmented reality, the situation has radically changed because digital virtual additions cannot be removed from the space. It is up to the artist to decide where to exhibit and it is up to the audience to decide what to view. This is an artistic practice that can be done in groups and independently as much as the engagement of the audience with the artwork can be realized by a single or a group. The usage of a mobile phone to see AR installation is just a prototype, it is my belief that in the very near future we will have more sophisticated ways to experience

the multi-layered world around us with its unlimited amount of AR options. This means there will of course be a strong need of filtering; also the virtual space will need to be curated but the dynamics between artist, audience and curator will not replicate the current hierarchical frameworks. There has been a shift that has brought more power to the artists and the audience; a shift that obviously did not come from the 'inside' of the art institutions. This paradigm shift had to be demonstrated and initiated by outsiders. I believe it took place when Manifest.AR set-up a 6 floor exhibition within the iconic MoMA museum, without invitation, without notice, making their point.

**"In *The Truth in Painting*, Derrida describes the *parergon* (*par-*, around; *ergon*, the work), the boundaries or limits of a work of art. Philosophers from Plato to Hegel, Kant, Husserl, and Heidegger debated the limits of the intrinsic and extrinsic, the inside and outside of the art object." (Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge, MA: MIT Press, 2009), 13.) Where then is the inside and outside of the virtual artwork? Is the artist's 'hand' still inside the artistic process in the production of virtual art or has it become an irrelevant concept abandoned outside the creative process of virtual artworks?**

In terms of the production process, there is no difference between art which consists of physical material and art which consists of virtual phenomena. The same artistic 'hand' is involved in shaping the artwork; originating it from raw materials. Computer code as paint, the keyboard as brush. Even AR art suffers from decay and artistic randomness, just as physical artworks do. The evolving version numbers of AR browsers make sure AR is a phenomenon and process in flux. I wish to state that materiality and virtuality are

often confused. Art that is virtual does not imply that it does not exist. Augmented reality art in particular exists in the 'real' world. It is non-tangible, but so is the experience of a real Picasso, for most of us. AR art has a location and it has dimensions, it can also have unlimited dimensions, a feature formerly only existing in conceptual art.

**Virtual interventions appear to be the contemporary inheritance of Fluxus' artistic practices. Artists like Peter Weibel, Yayoi Kusama and Valie Export subverted traditional concepts of space and media through artistic interventions. What are the sources of inspiration and who are the artistic predecessors that you draw from for the conceptual and aesthetic frameworks of contemporary augmented reality interventions?**

The intervention in the MoMA was obviously inspired by Bansky and his guerrilla placement of carefully contextualised artworks in museums worldwide. There are similarities between AR art and Banksy's art practice. They can both be seen as having an origin in street-art, now having transitioned into the spaces of official institution; first uninvited, then gradually becoming welcomed. As homage to Banksy, I included a 'Banksy re-enactment,' augment in the "We AR in MoMA" show. It was a cut-out version of the famous photo of Banksy putting up his work on a museum wall. During the opening of our show in the MoMA in 2010, he joined us to repeat his action, virtually, and uninvited.

In addition to just copying the practise of guerrilla exhibiting using new means, we did explore the radical new opportunities of AR. Things that were previously not possible. An example is the launch of a virtual 7th floor on top of the MoMA building. This could have, of course, been conceptual piece inspired by George Brecht and written on a small white paper, but nowadays it can be made for 'real,' virtually. AR is causing

a revival of conceptual art. The earth encapsulating virtual artworks, *BiggAR* for example, is on its way to become the biggest artwork in the universe. Within the AR art domain, which is considered by many people to be invisible, *BiggAR* will eventually be the first invisible AR artwork; an artwork in transition to become a conceptual piece.

**In the representation and presentation of your artworks as being 'outside of' and 'extrinsic to' contemporary aesthetics, why is it important that your projects are identified as Art?**

The nature of augmented reality confronts us with a problem when wanting to define the intrinsic and extrinsic properties of an AR artwork as these are non-separable. Augmented reality is by definition a combination of reality and an addition to that reality. If not related to its context or interwoven with its surrounding, a creation is not augmented reality. It might be 3D modelling or graphic design, but only the manifestation of the creation within its intended surrounding makes it an augmented reality artwork. Its intrinsic quality needs to be judged on the extent in which it integrates successfully with its surroundings. Does it provide added value or even have an impact on the newly arisen hybrid situation? The artwork if it does not have intrinsic aesthetic properties on its own cannot be defined as non-art, there are also other criteria that emerge from the integraton of the artwork with the space and the audience. AR artworks cannot be judged according to metrics and definitions that have been in use up untill now. ∎

*Dutch new media artist Sander Veenhof studied computer science at the VU university in Amsterdam and graduated at the Instable Media department of the Rietveld Art Academy.*

Veenhof works at the cross section of computer since and media using his technical knowledge and intuition to explore the impact of emerging technologies on our radically changing reality and current society. In search of new formats unique to our semi-digital world, Veenhof's projects range from technically driven concept art to geo-based participative storytelling experiences. His recent works foremostly exist in the augmented public space worldwide, accessible through a smartphone. To Veenhof, AR provides a perfect environment to work on projects in which virtual elements and physical components truly integrate and mutually empower each other, leading to a result that could not be possible otherwise. Veenhof is one of the founding members of Manifest.AR, a collective of artists creating their works in augmented reality. Best known for their uninvited exhibition in the MoMA NY, the group showcases new opporunities for artists and audiences in a world in which physical borders and limitations are no longer relevant. ∎
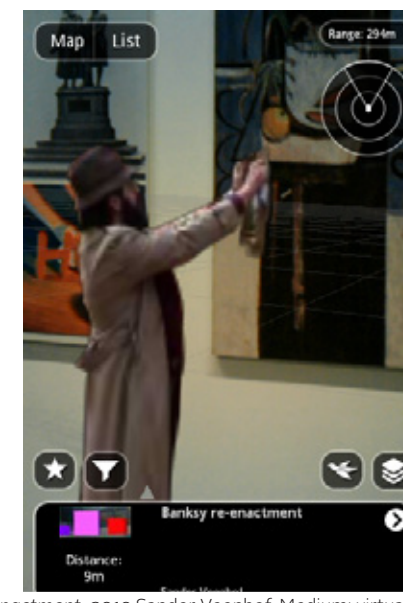


*Banksy re-enactment*, 2010,Sander Veenhof. Medium: virtual appearance of Banksy through Layar augmented reality. (The photo is a screenshot of the Layar created by Sander Veenhof, courtesy of the artist. © Sander Veenhof, 2010.)

*Sports++*, 2011,

Sander Veenhof in cooperation with V2_Lab.

Format: soccer stadium repurposed for virtual massive multi-

player gaming (copyright: photo taken by Sander Veenhof).

© Sander Veenhof, 2011.



*Infiltr.AR*, 2011,

Sander Veenhof & Mark Skwarek.

Format: virtual infiltration into the White House and Pentagon

(copyright: photo taken by Sander Veenhof ).

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# Deadly Cuts To The Arts

A New International Initiative of
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