

# **Critical Interventions into Canonical Spaces: Augmented Reality Interventions at the 2011 Venice and Istanbul Biennials**

**FINAL DRAFT**

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## **Abstract**

This essay describes augmented reality interventions led by the author in 2011 with the artist group Manifest.AR at the Venice Biennale, and in collaboration with the design office PATTU at the Istanbul Biennale. The interventions used the emerging technology of mobile augmented reality to geolocate virtual artworks – visible for viewers in the displays of their smartphones as overlays on the live camera view of their surroundings – inside the normally curatorially closed spaces of the exhibitions via GPS coordinates.

Our interventions used the site specific character of the technology to create works of art that stand in dialogue with the sites and will retain their relevance long after the biennials are over. The site figures as the canvas for the artworks and forms an integral visual and contextual component of each artwork. Unlike physical art interventions, the artworks cannot be removed or blocked by the curators or other authorities, and will remain at those locations as long as the artist desires. The artworks exploit the site-specificity as an integral part of the artwork while simultaneously questioning the value of location to canonize works of art, and the power of the curator as gatekeeper to control access to the spaces that consecrate works of art as part of the high art canon.

## **Introduction**

“In the 21st Century, Screens are no longer Borders. Cameras are no longer Memories. With AR the Virtual augments and enhances the Real, setting the Material World in a dialogue with Space and Time.” (Manifest.AR 2011)

In 2011, using the recently developed mobile technology of geolocated augmented reality (AR), the author was the primary organizer of two interventions into art biennials: in Venice together with Sander Veenhof and Mark Skwarek for our cyberartist group Manifest.AR, (Manifest.AR blog 2013) and in Istanbul in collaboration with the Istanbul design team PATTU (PATTU 2013). With geolocated AR artists can place virtual computer graphic artworks at specific locations via the site’s GPS coordinates. The artwork can then be viewed by anyone on site in the display of a smartphone or mobile enabled tablet as an overlay on the live camera view, merged with the surroundings as if the artwork was there in real life.

Both Venice and Istanbul – bound together through centuries of often contentious history – are spectacular cityscapes and sites of former empire. They continue to fascinate not only for their

spectacular settings and artifacts of their past glory, but also for their cultural presence in the globalized contemporary art world. The Venice Biennale, founded in 1895, is the world's oldest art biennial and arguably the city's main claim to relevance as a contemporary international destination. Istanbul, long in decline after the fall of the Ottoman Empire, has been reinvigorated in the past decades by Turkey's rising political and economic power. Its art biennial, founded in 1987, is a showcase for Istanbul's new position as a dynamic center of contemporary international culture.

In both interventions the curatorial questions were the same: How can we go beyond each city's glorious past to address its contemporary concerns and the reality of life in the city today? What role does the art biennial play in the political and cultural life of each city? Can we use the interventions to question the biennial system itself, and the art world's use of that system to define and establish artistic value?

### ***Challenging and Exploiting the Primacy of Site***

The Manifest.AR artist group originally formed around an intervention into the United States' most iconic contemporary art space: the Museum of Modern Art in New York. Sander Veenhof and Mark Skwarek realized that the institutional walls of the white cube were no longer solid, and organized a guerilla exhibit of augmented reality artworks inside the walls of MoMA.<sup>1</sup>

Since time immemorial location has been used to consecrate objects and people. The religious and power centers of the world maintain sacred spaces where only the chosen elect are allowed to enter. In the art world too, access to a location – a gallery, a museum or other curatorially closed space – is tightly controlled to confer value and thus, via this exclusivity, to canonize the works shown there as “high art.” What does it mean however to control physical space when in geolocated virtual space anyone can place whatever they want? (Aceti 2008) Augmented reality artists require no permission from government or artistic authorities to place their works at a specific site. They merely need know the GPS coordinates of the location – and unlike Street Art or other physical art interventions, the infiltrated institutions cannot remove the works, which remain on site as long as the artist wishes.

Technically, it is a trivial difference in GPS coordinates that moves a virtual object from a public space such as Central Park to the curatorially closed space inside the sacred walls of MoMA. As long as curators are gatekeepers for locations of high art, location still confers value – and placing AR works in such a location, even or especially if put there by the artists themselves in subversion of this control, endows the works with the aura of objects canonized by that location.

The epiphany of augmented reality, however, is that although the artworks are virtual, their presence at the site is “real”: “actually existing as a thing or occurring in fact; not imagined or supposed” (Oxford English Dictionary 2013) – and is reproducible by anyone who views the artwork at that site. In this “consensual hallucination” that was the dream of the early cyberpunk authors and virtual

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<sup>1</sup> In October 2010 Sander Veenhof and Mark Skwarek organized the AR intervention “We AR in MoMA” (Veenhof 2010) for the Conflux Festival of Psychogeography (Conflux Festival 2010). Cyberpunk author Bruce Sterling blogged the intervention on WIRED (Sterling 2010), MoMA tweeted “Nice, looks like we’re havin an ‘uninvited’ AR exhibition tomorrow!” (Museum of Modern Art 2010), and later in an interview with the New York Times the director of digital media welcomed our engagement with her museum (Fidel 2010).

reality evangelists (Gibson 1984), augmented reality is redefining the barriers between what we consider “the real” and “the virtual.”

Human culture has always been fascinated with the invisible, whether these were gods and supernatural spirits that could only be seen via divine grace, or remote galaxies and tiny organisms that could only be seen with scientific instruments. Both individuals and entire societies invest sites with invisible layers of meaning as a part of personal and collective memory. Augmented reality art can now merge these invisible layers of memory and culture with the actual physical location. As with all site-specific artworks, viewers can also record their own personal encounters in screenshots, creating a dialogue between the work, the site and their own particular gaze.

In 2011 when we did these interventions there were still voices that spoke of smartphones as elitist devices for the wealthy. Even then however our social lives had already moved into virtual space: we shared experiences by posting our photographs on the Internet, and the small incidents and passing thoughts of our daily lives on Facebook and Twitter. Now, less than two years later it is clear that soon more people worldwide will be using mobile devices than PCs, and smartphones will become our main access platform to the digital commons. (Standage 2012) What is the likelihood that kids in East Harlem<sup>2</sup> or people of all ages in Kenya (Talbot 2012) will view AR art on smartphones versus viewing art in galleries and museums?

### ***Site as Canvas and Context***

As interventionist art, augmented reality questions the possession and control of a physical space. As site specific art, it also exploits and appropriates the physical space as its canvas and its context, as the virtual artworks are always seen merged with the live camera view of the surroundings. It enters into a dialogue with the location visually to integrate it into the visual composition of the viewed augment, conceptually to trigger associations of memory and culture, but also physically as the viewer interacts bodily with the site. Usually the viewer must search the surroundings to find the augment, like bird watchers scanning with binoculars, or must walk the site dodging real world obstacles in order to experience the artwork in its totality. Thus, though the artwork is virtual, the viewer must engage physically with the site to experience it, an act which engages the kinesthetic sense of the viewer’s body and thus situates the viewer and the act of viewing in the physical experience of that site.

Our interventions into art spaces and events are thus instigated by the visual, cultural and physical facets of experience that the site provides for the artwork as canvas and as context, with an express interest in the dialogues – in the art world and beyond – that engage the site. Many of our works dialogue directly with the other “official” artworks at a venue, and inevitably also with the theme and concept of the exhibition as defined by the curator. Many artists act on and react to contemporary events and discourses, of course, but the ability of augmented reality to geolocate

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<sup>2</sup> In 2012 the author helped the Caribbean Cultural Center and African Diaspora Institute (CCCADI) to bring in a Rockefeller Cultural Innovation Grant to create "Mi Querido Barrio," an augmented reality tour of the history and art of East Harlem. As AR Artistic Director for the project the author is conducting AR workshops for artists in East Harlem. (Rockefeller Foundation 2012, CCCADI 2013)

artworks at the site of those discourses increases the potency of their visual argument.<sup>3</sup> In a time when many question the relevance of galleries, museums and biennials as venues for art, we save the gated communities of the art world from irrelevance by bringing a new form of dialogue into their institutions.

### ***Manifest.AR Venice Biennale Intervention Themes and Concerns***

At the 2011 Venice Biennale we wished to reflect not on Venice's past glory, but on its current situation: wrestling with climate change, overrun by tourists and street vendors, fighting to keep its art biennial relevant in an era in which its national pavilions stand in direct contrast to the globalized, itinerant world of contemporary art, whose artists live and work in multiple systems of cultural reference. The national pavilions that dominate the Venice Biennale are a reflection of its origins at the end of the 19th century and the rise of the nation-state with a presumed monolithic ethnic or cultural identity. At the very latest since the end of the Cold War this concept has seemed antiquated, as Russia and Serbia disinherited their former comrades out of the U.S.S.R. and Yugoslavian pavilions, and non-Western centers of international art such as China and the Middle East rise in prominence. (Madra 2006)

Curator Bice Curiger's opening statement questioned this structure as well: "By adopting the title ILLUMInations the 54th International Art Exhibition of the Venice Biennale also aspires literally to shed light on the institution itself, drawing attention to dormant and unrecognized opportunities, as well as to conventions that need to be challenged ... Far removed from culturally conservative constructs of 'nation,' art offers the potential to explore new forms of 'community' and negotiate differences and affinities that might serve as models for the future." (Curiger 2011) Curiger also posed five questions on identity to each of the artists officially included in the Biennale: "Where do you feel at home? Does the future speak English or another language? Is the artistic community a nation? How many nations do you feel inside yourself? If art was a nation what would be written in its constitution?"<sup>4</sup>

As an international artist collective that coalesced around challenging conventions of inclusion and participation, we saw this as a personal invitation to participate. Sander hijacked Curiger's curatorial statement and the Venice Biennale website to create our Venice Manifesto, in which we proclaimed (Figure 1):

As "one of the world's most important forums for the dissemination and 'illumination' about the current developments in international art" the 54th Biennial of Venice could not justify its reputation without an uninvited Manifest.AR Augmented Reality infiltration. In order to "challenge the conventions through which contemporary art is viewed" we have constructed virtual AR pavilions directly amongst the 30-odd buildings of the lucky few within the Giardini. In accordance with the "ILLUMInations" theme and Bice Curiger's 5 questions our uninvited participation will not be bound by nation-state borders, by physical boundaries or by conventional art world structures. The

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<sup>3</sup> The author's contribution to "We AR in MoMA" was a matrix of screaming faces titled "ARt Critic Face Matrix," a self-referential artwork that critiqued its own validity as an artwork, reflecting on the role of MoMA NY to define what did or did not constitute art. (Thiel October 2010)

<sup>4</sup> Although Curiger refers frequently to the "five questions," they are not to be found on the official Venice Biennale website. See for instance Flash Art: (Flash Art 2011)

AR pavilions at the 54th Biennial reflect on a rapidly expanding and developing new realm of Augmented Reality Art that radically crosses dimensional, physical and hierarchical boundaries. (Manifest.AR Venice Intervention 2011 January)

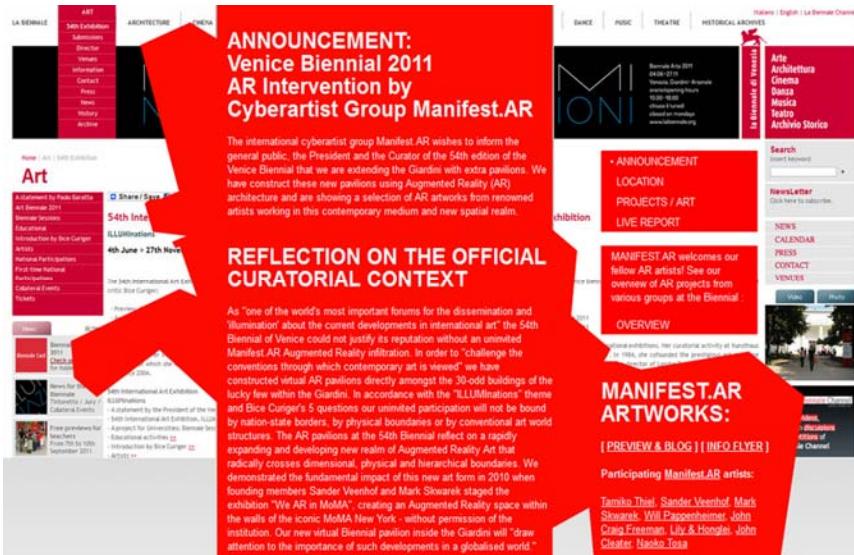


Figure 1. Manifest.AR Venice Biennial Intervention website.

We wanted our intervention however to go beyond merely addressing Curiger's statement, and also reflect on events in the wider world as they related specifically to the realities of Venice as a contemporary city. Questions about control of space went beyond the confines of the Giardini. So-called "public" art has always depended on permissions from the authorities to allow art to be placed in public view, and many a "public" space is actually closely controlled. We therefore placed artworks not only in the controlled curatorial space of the Venice Giardini, but also in the public space of Piazza San Marco, which has itself seen censorship of officially planned artworks. (Magill Jr 2007)

Four of us from Manifest.AR were able to actually go to Venice, and another five provided round-the-clock support from their various locations. Although AR artworks can be created and placed on site from anywhere in the world via the Internet, people are needed on site to document the artworks in screenshots and video recordings, and – important for invisible artworks – to spread information on the intervention to the audience and engage them in viewing the artworks. We collaborated closely with another group intervention, The Invisible Pavilion. Organized by Share Festival director Simona Lodi and the artist group Les Liens Invisibles, represented on site in Venice by Gionatan Quintini, we produced a common flyer and held joint AR tours in the Giardini and Piazza San Marco (Figure 2 and 3). (Manifest.AR Venice Intervention 2011 May)



Figure 2. In the Venice Giardini: John Craig Freeman, Sander Veenhof, Simona Lodi (Share Festival), and Will Pappenheimer and John Cleater in screens.



Figure 3. In Piazza San Marco: John Craig Freeman, Tamiko Thiel, Mark Skwarek, Simona Lodi (Share Festival), Gionatan Quintini (Les Liens Invisible). In screens: Lily and HongLei, Naoko Tosa.

## ***Manifest.AR Artworks in the Venice Biennale Intervention***

The author Tamiko Thiel's work, *Shades of Absence*, is a series of three "virtual pavilions" formed of terms of censorship and containing anonymized golden silhouettes of artists whose works have been censored. It posited a transnational community of censored artists in reply to Bice Curiger's questions: "Is the artistic community a nation? If art was a nation what would be written in its constitution?"

*Shades of Absence: Outside Inside* addressed the precarious status of artists threatened with arrest or physical violence (Figure 4). *Shades of Absence: Schlingensief Gilded* is a memorial to the controversial artist Christoph Schlingensief, and was placed directly in his posthumous exhibit in the German Pavilion (Figure 5). *Shades of Absence: Public Voids* puts silhouettes of artists whose works in public places have been censored – including several by the Venice Biennale itself – in the Piazza San Marco (Figure 6). In all works, touching the screen while viewing one of the artworks brings a link to a website with cases of these particular types of censorship. (Thiel 2011 May)



Figure 4. *Shades of Absence: Outside Inside*, Tamiko Thiel, 2011. Augmented Reality, Venice Giardini. A memorial to artists threatened with arrest or physical violence.



Figure 5. *Shades of Absence: Schlingensief Gilded*, Tamiko Thiel, 2011. Augmented Reality, German Pavilion, Venice Giardini. A memorial to the artist Christoph Schlingensief, placed in his posthumous exhibit in the German Pavilion.



Figure 6. *Shades of Absence: Public Voids*, Tamiko Thiel, 2011. Augmented Reality, Piazza San Marco, Venice. A memorial for artists whose works in public spaces have been censored.

Sander Veenhof's work ***Battling Pavilions*** directly challenged the role of the curator, the exclusive nature of the Giardini and the limited number of national pavilions allowed within its Sacred Grove. Users of this augmented reality app were given different curatorial powers depending on their physical location. If they were outside the Giardini they could create a new virtual pavilion for any nation of their choice and place it in the Giardini (Figure 7). If they were inside the Giardini, they took on the role of Biennale curator Bice Curiger defending her curatorial powers, and could delete any of the upstart intruding pavilions (Figures 8 and 9).

In a classic twist, Sander's intervention also became an official part of the Biennale: hearing of his intervention, dropstuff.nl invited him to show his Battling Pavilions on their large screens in three locations around Venice (Figure 7). (Veenhof 2011)



Figure 7. **Battling Pavilions**, Sander Veenhof, 2011. Augmented Reality Game. Scoreboard on dropstuff.nl screen during the Venice Biennale, displaying scoreboard of unauthorized virtual pavilions in the Giardini.



Figure 8. **Battling Pavilions**, Sander Veenhof, 2011. Augmented Reality Game. Visitor in the Giardini helping curator Bice Curiger delete an unauthorized virtual pavilion.



Figure 9. **Battling Pavilions**, Sander Veenhof, 2011. Augmented Reality Game. The virtual version of curator Bice Curiger checks the Dutch Pavilion to make sure there are no unauthorized pavilions here.

Mark Skwarek's *Island of Hope* addressed the physical situation of the islands of Venice, which since the founding of the city have been under perpetual threat of sinking into the lagoon. Skwarek posited new forces of continental uplift bringing hope of survival to Venice, the tectonic forces erupting out of the ground as fully formed baroque gardens in the Giardini (Figure 10) and in Piazza San Marco (Figure 11). Besides bringing additional landmass, all-powerful goddesses on the islands incorporate objects of hope, and tweets with the hash tag #hope, into the gardens in order to bring peoples' hopes and dreams to life. (Skwarek 2011)



Figure 10. *The Island of Hope*, Mark Skwarek, 2011. Augmented Reality. Seen in the Venice Giardini.



Figure 11. *The Island of Hope*, Mark Skwarek, 2011. Augmented Reality. Seen in the Piazza San Marco.

John Craig Freeman's *Water wARs: Squatters Pavilion* also focuses on the rising water levels in Venice, but with a dramatic difference. Water wARs is a virtual squatter's camp for refugees of water wars, one camp directly inside the protecting walls of the Giardini (Figure 12), and another "public" camp in Piazza San Marco (Figure 13).

In Venice, a city itself founded by refugees and threatened by constant flooding, Water wARs calls attention to the escalating global struggle for this basic human need, made increasingly scarce not only by environmental damage but also through privatization of water supplies by multinational corporations. It questions the ability of sovereign nations to isolate themselves from the rest of the world, as worldwide ecological disasters drive people in desperation to violate the boundaries of the nation-states in pursuit of sheer survival. (Freeman 2011)



Figure 12. **Water wARS, Giardini**, John Craig Freeman, 2011. Location-based Augmented Reality. Pavilion for undocumented artists/squatters and water war refugees in front of the Giardini Central Pavilion.



Figure 13. **Water wARS, Piazza San Marco**, John Craig Freeman, 2011. Augmented Reality. Pavilion for undocumented artists/squatters and water war refugees in Piazza San Marco, Venice.

John Cleater's work **Sky Pavilions** provides help for Venice from an unexpected direction altogether – from above. Alien Sky Pavilions descend from outer space and take over Venice: The mothership hovers over Piazza San Marco emitting a mixture of nonsense and guidance to confuse and help tourists, natives, and art seekers (Figure 14). In the Giardini alien "Floaties" lie in wait, begging to be touched, and when activated by obliging visitors spin upwards, carrying secret messages to the mother ship (Figure 15).

Sky Pavilions goes beyond the concept of the nation-state, beyond the concerns of mere earthbound humanoids and reminds us that the last word in the control of space may not be ours to decide.  
(Cleater 2011)



Figure 14. **Sky Pavilions**, John Cleater, 2011. Augmented Reality and audio. Alien Mothership Sky Pavilion floats over Piazza San Marco.

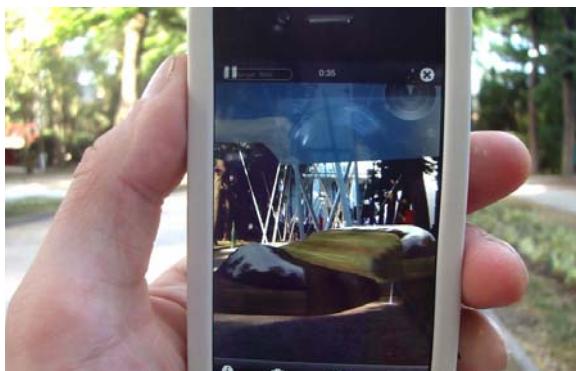


Figure 15. **Sky Pavilions**, John Cleater, 2011. Augmented Reality and audio. Alien Sky Pavilion “floaties” in the Giardini.

Lily and Honglei's work **The Crystal Coffin: Virtual China Pavilion** brings us squarely back to earth and confronts us with the realities of our shifting national structures. It is inspired by China's (current) Holy of Holies: Mao Zedong's crystal coffin, a petrified symbol of eternal Party rule. Placing the crystal coffin into the Giardini, the Sacred Grove of the Venice Biennale, both questions the traditional hierarchy of privilege among national pavilions in the Biennale and thematizes the rise of China as a vital – and financially important – center of contemporary art (Figure 16).

A second pavilion placed in the Piazza San Marco occupies the heart of this emblematic European city, whose native son Marco Polo “discovered” China for the West, and dominates it with this ultimate symbolic source of Chinese Party power (Figure 17). At the same time, however, the reference to Mao's embalmed presence and the Party's current mandate of “traditional styles” for the pavilion building speaks of the ruling system's authoritarian tendencies that still inhibit the development of Chinese artists and intellectuals. (Lily and HongLei 2011)



Figure 16. *The Crystal Coffin, Giardini*, Lily & Honglei, 2011. Augmented Reality. Artwork inspired by the crystal coffin in the Mausoleum of Mao Zedong in Tienanmen Square, seen here in front of the Giardini Central Pavilion.

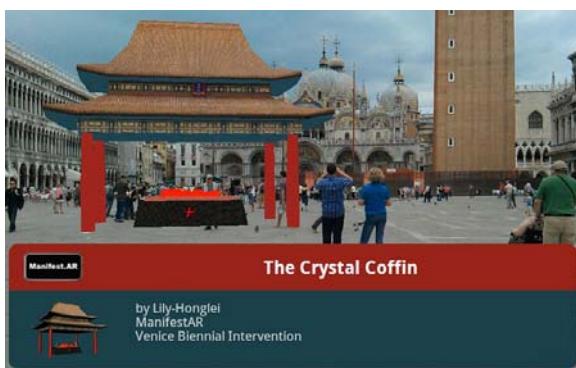


Figure 17. *The Crystal Coffin, Piazza San Marco*, Lily & Honglei, 2011. Augmented Reality. Artwork inspired by the crystal coffin in the Mausoleum of Mao Zedong in Tienanmen Square, seen here in Piazza San Marco.

Will Pappenheimer/Virta-Flaneurazine's *Colony Illuminati* appropriated both the Biennale title "ILLUMInations" and the actual visual imagery of many artworks in the Biennale. This was a secret colony of virtual bufo toads that draws sustenance from high art: as a form of camouflage, their skin appropriates imagery from artworks around them as they multiply amongst the national pavilions in the Giardini (Figure 18) and spread out into the city, seeking the outlying venues of the Venice Biennale (Figure 19).

When touched on the smartphone screen, the toads release psychotropic drugs that trigger hallucinations in the viewer: a swirl of Internet information surrounding the Biennale and waves of Tintorettoesque ecstasy that Bice Curiger proclaimed to be the true essence of ILLUMInations (Figure 20). (Pappenheimer and Virta-Flaneurazine 2011)



Figure 18. *Colony Illuminati*, Will Pappenheimer/Virta-Flaneurazine, 2011. Augmented Reality. Colony group on Giardini main concourse.



Figure 19. *Colony Illuminati*, Will Pappenheimer/Virta-Flaneurazine, 2011. Augmented Reality. Songdongphilic toads in the Arsenale at the Song Dong parapavilion. Video still: Sander Veenhof.

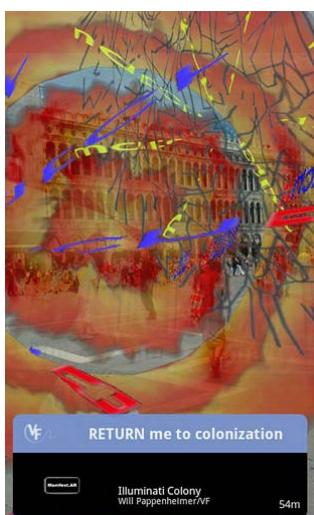


Figure 20. *Colony Illuminati*, Will Pappenheimer/Virta-Flaneurazine, 2011. Augmented Reality. Visionary effects of touching Colony Illuminati toads at Piazza San Marco.

Naoko Tosa's app *Historia* addressed Bice Curiger's question "Does the future speak English or another language?" and her view that "art offers the potential to explore new forms of 'community' and negotiate differences and affinities that might serve as models for the future." *Historia* appropriates iconic images from all nations and world cultures, from times both modern and ancient, and uses them to create a mental pavilion of re-constructed meaning. The interactive artwork allows

visitors to choose icons, arrange them in a sequence – and then assign each icon a new meaning (Figure 21).

Historia playfully examines the process by which artists appropriate and redefine existing cultural symbols to create their own individual language, and distills it into a smartphone app. These messages, with their newly created, completely individual English “translations,” appear as overlays in the Giardini and in Piazza San Marco, an international multi-cultural messaging mash-up for the transnational nation of art and art tourism (Figure 22). (Tosa 2011)

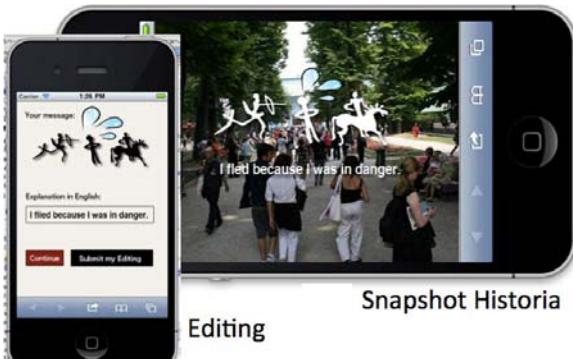


Figure 21. *Historia*, Naoko Tosa, 2011. Augmented Reality. Users compose messages by appropriating historic icons floating in the space and assigning a new meaning to their message. Seen in front of the Giardini Central Pavilion.



Figure 22. *Historia*, Naoko Tosa, 2011. Augmented Reality. Users compose messages by appropriating historic icons floating in the space and assigning a new meaning to their message. Seen in front of Cafe Florian, Piazza San Marco.

The issues addressed by our works will remain relevant long after the 54th Biennale is over. Their virtual presence will remain too: as long as our servers run, the artworks of the Manifest.AR 2011 Venice Biennale Intervention will grace the city and the Giardini and can be seen by whomever looks for them. (Manifest.AR Venice Biennale Intervention launch page 2011)

## **Venice – Lewisburg – Istanbul -- LEA**

Even in the planning stages our Venice Biennale intervention received the enthusiastic support of two curators deeply involved in interventionist art. Lanfranco Aceti, a practiced interventionist himself (Aceti 2008), helped us gain access to the Biennale. Richard Rinehart invited us to intervene in his Samek Gallery in Lewisburg, Pennsylvania on the same day that we opened at the Venice Biennale – and titled the exhibit “Not Here” to celebrate the fact that the artworks were present even though the gallery was closed for the summer. (Rinehart 2011) Later that fall Lanfranco, as director in Istanbul of both ISEA2011 and the Sabanci University Kasa Gallery, invited us to position our Venice artworks in the Kasa Gallery to create the show “Not There” (Aceti 2011, Manifest.AR blog 2011) as part of the ISEA2011 exhibition UNCONTAINABLE, an official parallel program to the Istanbul Biennale. Out of an interview that Lanfranco held with the author in June 2011 in the Kasa Gallery Istanbul arose the idea to create a special issue of the Leonardo Electronic Almanac to address the questions raised by the intervention, with Richard Rinehart as collaborating editor and fittingly titled “Not Here Not There.” (Aceti, Lanfranco et. al. 2013)

For the city-state of Venice, the city of Constantinople/Istanbul was a constant, looming presence both culturally and politically. In the early centuries Venice was part of the Byzantine Empire and owed allegiance – and taxes – to Constantinople, the great capital of eastern Christendom and seat of the Empire. In 1204 Venice’s Doge Enrico Dandolo diverted the Fourth Crusade, bound ostensibly for the Holy Land, to Constantinople to sack the city and break its control over Venice. Weakened, Constantinople never fully recovered and finally fell to the Ottoman invaders in 1453. The lavish booty from Constantinople that adorns the Basilica San Marco in Venice turned however to poisoned fruit, as the renamed city rose to rival Venice in the Mediterranean as Istanbul, the great Muslim capital of the Ottoman Empire.

After World War I the Ottoman Empire fell apart, surviving only as the much reduced country of Turkey, and Istanbul fell into the melancholic slumber poetically described in Orhan Pamuk’s novels. In the 21st century, however, with Turkey’s rising political and economic power Istanbul has once again become a thriving center of contemporary culture, and its former melancholy is not even a childhood memory for the current generation of young artists. Lanfranco’s invitation to ISEA2011 and the Istanbul Biennale was an irresistible opportunity to experience a fascinating city through the concentrating prism of a contemporary art biennial.

### ***“Invisible Istanbul”: Istanbul Biennale 2011 AR Intervention***

Through an artist residency at the Caravansarai artists’ space in Istanbul (Caravansarai 2013) I had met Cem Kozar and Işıl Ünal, Istanbul architects and designers who run the design office PATTU. (PATTU 2013) They were interested in learning to use augmented reality technology and were deeply knowledgeable about the past and future urban development of the city, making for a fruitful collaboration on both sides. Together we created “Invisible Istanbul,” a series of augmented reality works that make visible the unseen tensions within the city and its urban fabric. (PATTU and Thiel 2011) As part of the ISEA2011 exhibition UNCONTAINABLE it was also an official parallel program to the Istanbul Biennale.

The Istanbul Biennale is part and parcel of the urban development plan for the Beyoğlu district of Istanbul, and our artworks reflected on the Biennale both as a site and on its role – and the role of art exhibitions in general – in the official development plans of the city government. Some commented on the Biennale itself, others reflected on the urban space that the Biennale occupies and yet others drew a larger circle to place the Biennale area within the overall context of the Beyoğlu district.

The theme of the 2011 Istanbul Biennale also attracted my attention, as the curators Pedrosa and Hoffmann based their concept around the works of Félix González-Torres and his method of creating politically charged artworks by investing small, banal objects from daily life with very personal conceptual significance. This method, and the curators' emphasis "on works that are both formally innovative and politically outspoken" (Istanbul Biennale 2011), spoke directly to how I want to work with augmented reality and presented an excellent point of departure for my own investigations.

Our intervention "Invisible Istanbul" consists of two parts, both of which used AR to place virtual artworks within the real physical space of Istanbul and the Biennale, creating surrealistic and poetic juxtapositions between real and virtual within the context of the hidden urban dynamics of Istanbul. Both begin with Tophane, the former military barracks and munitions factory where the main Biennale buildings are now located.

### ***Invisible Istanbul: Captured Images***

My works for "Invisible Istanbul," ***Captured Images***, took as a point of departure the displays of military power during the Ottoman Empire on the site where now the Istanbul Biennale celebrates its power in the contemporary art world. This work series was inspired by photographs of Tophane taken at the end of the 19th for the last Sultan, Abdul Hamid II, showing displays of military might: soldiers lined up for drills; rows of cannon captured from enemy armies; shells of different caliber ordered by size; cannonballs stacked into pyramids. (U.S. Library of Congress 2013) In the 1950s the barracks and factories were replaced with faceless warehouses and the rows of ordnance replaced with rows of goods. Today, these warehouses have been turned into exhibition spaces for art and the rows of goods have made way for rows of artworks. My artworks continue this transformation, using objects from daily lives as their munition and appropriating the main Biennale exhibition spaces as their venues, especially the group exhibitions "Untitled (Death by Gun)" and "Untitled (Passport)." (Thiel September 2011)

My works also reflect on tensions in Turkish civil society between tradition and modern, between military, political parties, opposition groups inside and outside of the political system, propaganda from all sides, the power of the journalist's pen(cil) to reveal and protest and uncover, but also of the political bureaucracy to define laws and jail sentences that are powerful weapons of intimidation. The Gezi Park protests of 2013 have only made the works more relevant.

In ***Captured (cannon balls)*** the ever-present Turkish nazar boncuğu glass amulets were stacked in piles inside the Biennale exhibit "Untitled (Death by Gun)." These amulets shatter when they avert the evil eye – what would it mean to use them as cannonballs (Figure 23)?



Figure 23. *Captured (cannon balls)*, Tamiko Thiel, 2011, Augmented Reality. Virtual nazar boncugu glass amulets with animated eyeballs. Seen in the Istanbul Biennale exhibition “Untitled (Death by Gun),” with Kris Martin’s *Obussen II*.

Several works deal with the pencil as a symbolic weapon of rhetoric and propaganda for sides, whether journalist, blogger or bureaucrat. They can be fat as cannon as in *Captured (cannon)*, as stubby as projectiles as in *Captured (shells)*, which I placed in the exhibit “Untitled (Death by Gun),” or surround the viewer completely as in *Captured (stockade)*, placed in the exhibition “Untitled (Passport)” (Figure 24).



Figure 24. *Captured (stockade)*, Tamiko Thiel, 2011, Augmented Reality. Virtual pencils surround the viewer. Seen here in the Istanbul Biennale exhibition “Untitled (Passport).”

Of course the pencil has long been replaced by the digital, so I created *Captured (for RSF\_RWB)* and placed it also in the exhibit “Untitled (Passport).” The name derives from the Twitter hash tag of Reporters Sans Frontières (Reporters Without Borders), and the artwork consists of RSF\_RWB tweets in which I censored the substantive words and animated them to surround the viewer in a constant flashing stream (Figure 25).



Figure 25. *Captured (for RSF\_RWB)*, Tamiko Thiel, 2011, Augmented Reality. The viewer is surrounded by censored tweets from Reporters Sans Frontières – Reporters Without Borders, Seen here in the Istanbul Biennale exhibition “Untitled (Passport).”

Finally, as a memorial to the assassinated Armenian-Turkish journalist Hrant Dink I created *Captured (for Hrant)*. I took the last artifact we saw of him, his worn shoe soles sticking out from under the sheet covering his dead body in the middle of a main street in Istanbul. The shoe soles, in gold, wander around the viewer. This work I put against the stark geometric purity of Biennale architect Ryue Nishizawa’s container walls (Figure 26).



Figure 26. *Captured (for Hrant)*, Tamiko Thiel, 2011, Augmented Reality. The viewer is surrounded by the animated footsteps of murdered Armenian Turkish journalist Hrant Dink. Seen here against the exhibition architecture done by Ryue Nishizawa for the Istanbul Biennale.

## ***Invisible Istanbul: Urban Dynamics***

PATTU (Cem Kozar and Işıl Ünal) created *Invisible Istanbul: Urban Dynamics* as an augmented reality walking tour that departs from the Istanbul Biennale site in the Tophane neighborhood and winds through the nearby neighborhoods of Karaköy and Galata. Using their deep knowledge of both the city’s past and the official development plans for the future, PATTU has used AR as a medium to map and visualize the dynamics of change that shape both the contemporary urban space and the lives of its inhabitants. The smartphone or iPad becomes a viewing instrument to bring into focus forces invisible to the naked or unknowing eye, and make them visible in the public sphere.

For each site or “node” along the route PATTU looked at the past, present and future uses of the area. The AR artworks at each site envelope the viewer in a cloud of artifacts that reference the activities for which each area was, is and will be used. This layer of symbolic information is visible as an overlay on the live camera view of the buildings and busy streets at each site, but is also complemented by links to a website with an historic photo of each location and a textual description of the urban dynamic in play at each site. (PATTU 2011) A small selection of nodes are described below as examples of the rich layers that can be experienced at each site.

***Node 1: The Docks*** is in Tophane by the Antreporots used for the Istanbul Museum of Modern Art and the Biennale. Looking down at the ground one sees cannon and other munitions, symbolizing the area’s previous use as a military barracks and munitions factory. Looking straight ahead, one sees heavy gold painting frames and fragments of well-known modern paintings, symbolizing the area’s current use for exhibitions of modern art. Looking up, one sees logos of multinational

companies – McDonalds, Converse etc. – symbolizing the development plans that call for turning the whole area into a large terminal and shopping mall for cruise ships, where visitors can shop for the usual international brands without having to deal with the city or culture of Istanbul (Figure 27).



Figure 27. *Invisible Istanbul: Urban Dynamics - Node1*, PATTU (Cem Kozar/Işıl Ünal), 2011. Augmented Reality. The Docks: From munitions factory to art exhibitions to shopping mall.

In **Node 4: The Minorities of Istanbul** the past shows a rich diversity of shop signs in what was Istanbul’s most multicultural neighborhood – destroyed by the Pogrom of September 6th/7th 1955, symbolized by the cloths of the textile merchants that littered the streets for days afterwards. Currently slumbering in urban decline, the future is to be dominated by hotels and shopping malls (Figure 28).



Figure 28. *Invisible Istanbul: Urban Dynamics – Node 4* PATTU (Cem Kozar/Işıl Ünal), 2011. Augmented Reality. The Minorities of Istanbul. From cosmopolitan Galata through the Pogrom of Sept. 6<sup>th</sup>/7<sup>th</sup> to hotels and shopping malls.

In **Node 5: Brothels** both the past and the present are dominated by symbols of brothels, the single surviving one being tucked away on the picturesque side street visible in the screenshot. A look skywards shows that this area is slated for development of a park and high-end hotels (Figure 29).

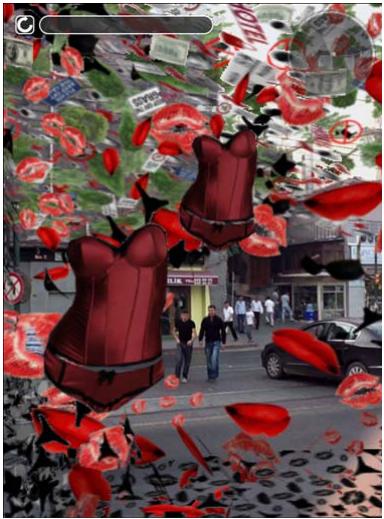


Figure 29. *Invisible Istanbul: Urban Dynamics – Node 5*, PATTU (Cem Kozar/Işıl Ünal), 2011. Augmented Reality. Brothels: From many brothels to one brothel to a park and hotels.

Standing on Voyvoda or Bank Street to view *Node 8: Museum Inflation* one still sees trucks loading and unloading sacks of money at the same banks that dominated this area in the past. The smaller buildings are now dominated by electronic shops selling everything from lamps to satellite dishes, and the banks themselves are being turned into art museums. Looking up one sees symbols for art and for the hotels that are also planned for this area in the future (Figure 30).

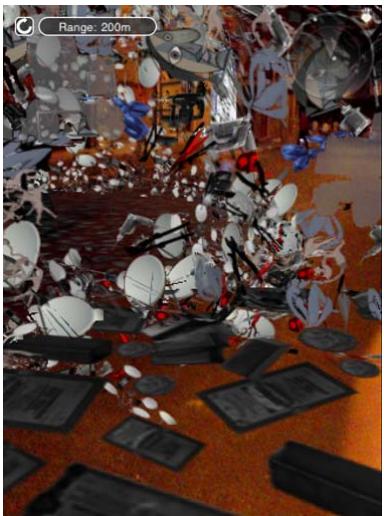


Figure 30. *Invisible Istanbul: Urban Dynamics – Node 8*, PATTU (Cem Kozar/Işıl Ünal), 2011. Augmented Reality. Node 8: Museum Inflation. From banks to electronic shops to art museums and hotels.

This is just a small sample of the sites covered by Invisible Istanbul: Urban Dynamics. As diverse as was the past and present in these neighborhoods, the future repeats itself in alarming monotony: multinational brands, upscale hotels – according to the official development plans for the city of Istanbul. The tour should be a requirement for everybody interested in the fate of this fascinating and dynamic city.

## **Conclusion**

The Venice and Istanbul Biennales of 2011, and the questions raised by their curators, framed questions that we took far beyond the curators' original intent in order to also address issues of curatorial control of selection and space, inclusivity and exclusivity, and the autonomy of the artist in the light of the possibilities of the new medium of geolocation augmented reality.

Our works at the Venice and Istanbul Biennales went however beyond a reflexive focus on art world dilemmas to address contemporary issues in the cities in which the biennials took place. Venice and Istanbul are two of the world's most compelling cities, overlaid with complex and often conflicting webs of history and memory, fantasy and desire. The new technology of mobile augmented reality allowed us to dialogue with these sites in a new manner, transforming specific sites into both the context and the canvas for our works of art.

I end with a quotation from Bice Curiger's curatorial text for the Venice Biennale:

"ILLUMInations presents contemporary art characterized by gestures that explore notions of the collective, yet also speak of fragmentary identity, of temporary alliances, and objects inscribed with transience. If the communicative aspect is crucial to the ideas underlying ILLUMInations, it is demonstrated in art that often declares and seeks closeness to the vibrancy of life. This is more important now than ever before, in an age when our sense of reality is profoundly challenged by virtual and simulated worlds. This Biennale is also about believing in art and its potential." (Curiger 2011)

I could not agree more. Perhaps in ways that Bice Curiger did not anticipate.

## **References**

Aceti L (2008) The Virtual Places We Own: When Communities and Artists Occupy Your Place without Your Consent. *Internet Research 9.0: Rethinking Community, Rethinking Place*: 15–18

Aceti L (July 2011) Not There. Kasa Gallery. <http://kasagaleri.sabanciuniv.edu/not-there>. Accessed 14 March 2013

Aceti L, Rinehart R, Şahin Ö et al (ed) (2013) Not Here Not There. *Leonardo Electronic Almanac* 19(2) <http://www.leoalmanac.org/vol19-no2-not-here-not-there-part-2/>. Accessed 29 November 2013

Caravansarai (2013) <http://www.caravansarai.info>. Accessed 14 March 2013

Caribbean Cultural Center African Diaspora (CCCADI) (2012) Call for Artists | Mi Querido Barrio Augmented Reality Project. <http://cccadi.org/08/991/>. Accessed 12 March 2013

Cleater J (2011) Sky Pavilions. Manifest.AR Venice Biennale 2011 Intervention website. <http://manifestarblog.wordpress.com/cleater-venice-2011/>. Accessed 14 March 2013

Conflux Festival. We AR in MoMA. <http://confluxfestival.org/projects/conflux-festival-2010/we-ar-in-moma/> (2010). Accessed 12 May 2014 via the Internet Archive Wayback Machine capture from June 29 2012:

<https://web.archive.org/web/20120629220542/http://www.confluxfestival.org/projects/conflux-festival-2010/we-ar-in-moma>

Curiger B (2011) Introduction by Bice Curiger. ILLUMInazioni – ILLUMInations. Venice Biennale website. <http://www.labbiennale.org/en/art/archive/54th-exhibition/curiger/>. Accessed 12 March 2013

Fidel A (2010, December 1) Art Gets Unmasked in the Palm of Your Hand. New York Times <http://www.nytimes.com/2010/12/02/arts/02iht-rartsmart.html>. Accessed 30 April 2012

Flash Art (2011) Bice Curiger speaks about the Venice Biennale.

[http://www.flashartonline.com/interno.php?pagina=news\\_det&id=953&det=ok&title=Bice-Curiger-speaks-about-the-Venice-Biennale](http://www.flashartonline.com/interno.php?pagina=news_det&id=953&det=ok&title=Bice-Curiger-speaks-about-the-Venice-Biennale). Accessed 12 March 2013

Freeman JC (2011) Water wARs: Squatters Pavilion. Manifest.AR Venice Biennale 2011 Intervention website. <http://manifestarblog.wordpress.com/freeman-venice-2011/> . Accessed 14 March 2013

Gibson W (1984) Neuromancer. Ace Books, New York.

Istanbul Biennale 2011 (2011) Untitled (12th Istanbul Biennial), 2011 [http://12b.iksv.org/en/son\\_haberler.asp?id=35&c=3](http://12b.iksv.org/en/son_haberler.asp?id=35&c=3). Accessed 14 March 2013

Lily and Honglei (2011) The Crystal Coffin: Virtual China Pavilion. Manifest.AR Venice Biennale 2011 Intervention website. <http://manifestarblog.wordpress.com/lily-honglei-venice-2011/>. Accessed 14 March 2013

Madra Y (2006) From Imperialism to Transnational Capitalism: The Venice Biennial as a ‘Transitional Conjuncture.’ Rethinking Marxism 18(4).

[http://www.academia.edu/2072820/From\\_Imperialism\\_to\\_Transnational\\_Capitalism\\_The\\_Venice\\_Biennial\\_as\\_a\\_Transitional\\_Conjuncture](http://www.academia.edu/2072820/From_Imperialism_to_Transnational_Capitalism_The_Venice_Biennial_as_a_Transitional_Conjuncture) Accessed 14 March 2013

Magill R J Jr (2007, 16 April) For Gregor Schneider's cube, a long pilgrimage. New York Times. <http://www.nytimes.com/2007/04/16/arts/16iht-cube.1.5303319.html>. Accessed 14 March 2013

Manifest.AR blog (2013) About Manifest.AR. <http://manifestarblog.wordpress.com/about/>. Accessed 12 March 2013

Manifest.AR blog (2011, July) “Not There,” Kasa Gallery, Istanbul.

<http://manifestarblog.wordpress.com/not-there-kasa-gallery-istanbul/>. Accessed 14 March 2013

Manifest.AR (2011, 25 January) AR Art Manifesto. Manifest.AR artist group official website. <http://www.manifestar.info/>. Accessed 12 March 2013

Manifest.AR Venice Biennale Intervention launch page (2011). (Viewable only on a mobile device - on a PC this will redirect to the main Manifest.AR Venice Biennale Intervention website.)  
<http://manifestar.info/vb11/>. Accessed 14 March 2013).

Manifest.AR Venice Biennale Intervention (2011, 25 January) Venice Biennial 2011 AR Intervention by Cyberartist Group Manifest.AR, Reflection on the official curatorial context.  
<http://www.manifestar.info/venicebiennial2011/> (accessed March 12, 2013).

Manifest.AR Venice Biennale Intervention (2011, May) Joint Venice Biennale Intervention flyer for Manifest.AR & Invisible Pavilion  
[http://manifestar.info/venicebiennial2011/biennale2011\\_jointPostcard.pdf](http://manifestar.info/venicebiennial2011/biennale2011_jointPostcard.pdf) . Accessed 29 November 2013

Museum of Modern Art NY Twitter site. <https://twitter.com/#!/MuseumModernArt/statuses/26786135774> (2010). Accessed 12 Mar 2013.

Oxford English Dictionary. Definition of “real.”  
[http://oxforddictionaries.com/us/definition/american\\_english/real](http://oxforddictionaries.com/us/definition/american_english/real) . Accessed 12 March 2013

Pappenheimer W, Virta-Flaneurazine (2011) Colony Illuminati. Manifest.AR Venice Biennale 2011 Intervention. <http://manifestarblog.wordpress.com/pappenheimer-venice-2011/>. Accessed 12 March 2013

PATTU (2013) PATTU: Architecture, Research, Design. <http://pattu.net/>. Accessed 12 March 2013

PATTU (2011) Invisible Istanbul: Urban Dynamics. <http://www.invisibleistanbul.org/ud/>. Accessed 12 March 2013

PATTU, Thiel T (2011) Invisible Istanbul. <http://www.invisibleistanbul.org/>. Accessed 12 March 2013

Rinehart R (2011, 4 June) Not Here: An Augmented Reality Project by MANIFEST.AR. Samek Gallery. <http://galleries.blogs.bucknell.edu/2011/07/08/current-exhibitionnot-here/>. Accessed 12 March 2013

Rockefeller Foundation (2012) Caribbean Cultural Center - African Diaspora Institute.  
<http://www.rockefellerfoundation.org/grants/grants-and-grantees/275e7eld-f90b-4f52-aee2-64128bf56f0b>. Accessed 12 March 2013

Skwarek M (2011) Parade to Hope. Manifest.AR Venice Biennale 2011 Intervention.  
<http://manifestarblog.wordpress.com/skwarek-venice-2011/>. Accessed 12 March 2013

Standage T (2012, 21 November) Live and unplugged. The Economist.  
<http://www.economist.com/news/21566417-2013-internet-will-become-mostly-mobile-medium-who-will-be-winners-and-losers-live-and>. Accessed 12 March 2013

Sterling B (2010, 6 October) Augmented Reality: AR uninvited at MOMA NYC. Beyond the Beyond. WIRED. [http://www.wired.com/beyond\\_the\\_beyond/2010/10/augmented-reality-ar-uninvited-at-moma-nyc](http://www.wired.com/beyond_the_beyond/2010/10/augmented-reality-ar-uninvited-at-moma-nyc). Accessed 30 April 2012

Talbot D (2012, March/April) Kenya's Startup Boom. Technology Review. MIT, Cambridge, MA. <http://www.technologyreview.com/communications/39673/>. Accessed 12 March 2013

Thiel T (2011, September) Invisible Istanbul: Captured Images. Tamiko Thiel website. <http://mission-base.com/tamiko/AR/ii/images.html>. Accessed 12 March 2013

Thiel T (2011, May) Shades of Absence. Manifest.AR Venice Biennale 2011 Intervention. [http://manifestarblog.wordpress.com/thiel\\_venice-2011/](http://manifestarblog.wordpress.com/thiel_venice-2011/). Accessed 12 March 2013

Thiel T (2010, October) We AR in MoMA exhibit. Tamiko Thiel website. <http://mission-base.com/tamiko/We-AR-in-MoMA/>. Accessed 12 March 2013

Tosa N (2011) Historia. Manifest.AR Venice Biennale 2011 Intervention. <http://manifestarblog.wordpress.com/naoko-tosa-venice-biennial-2011/>. Accessed 30 April 2012

U.S. Library of Congress (2013) Abdul-Hamid II Collection of photographs of the Ottoman Empire. Search term 'Tophane' <http://www.loc.gov/pictures/search/?q=tophane&sg=true>  
Cannon captured from foreign states <http://www.loc.gov/pictures/resource/cph.3b28721/>  
Cannon shells in various sizes <http://www.loc.gov/pictures/resource/cph.3b28724/>  
Drill of the students of Tophane <http://www.loc.gov/pictures/resource/cph.3b47778/>  
Accessed 14 March 2013

Veenhof S (2010, 9 October) DIY day MoMA Oct 9th 2010 AUGMENTED REALITY art invasion! Sander Veenhof website. <http://www.sndrv.nl/moma/>. Accessed 12 March 2013

Veenhof S (2011) Battling Pavilions. Manifest.AR Venice Biennale 2011 Intervention. <http://manifestarblog.wordpress.com/sander-veenhof-venice-biennial-2011/>. See also: <http://www.sndrv.nl/battle/> Accessed 14 March 2013

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### ***Tamiko Thiel – Biography***

A visual artist exploring the interplay of place, space, the body and cultural memory. Degrees in engineering design from Stanford and MIT; fine arts degree from Academy of Fine Arts Munich. Founding member of Manifest.AR - participated in 2010 pathbreaking augmented reality intervention at MoMA NY; was main curator and organizer of their 2011 AR intervention at the Venice Biennale.

Exhibitions at Istanbul Biennale, Corcoran Gallery of Art, ICP/NY, ZKM/Karlsruhe, LABoral/Spain, and Tokyo Metropolitan Museum of Photography; at the festivals Siggraph, ISEA, DUMBO, Ars Electronica; and art fairs Art Gwangju, Contemporary Istanbul and UNPAINTED. Her works are in collections at Smithsonian Institution, ZKM and San Jose Museum of Art/Silicon Valley, and are featured in references Digital Art (Whitney curator Christiane Paul - Thames and Hudson World of Art), The World of Digital Art (DAM director Wolf Lieser) and "Not Here Not There" AR special issue of Leonardo Electronic Almanac.

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She is augmented reality artistic advisor for the Caribbean Cultural Center and African Diaspora Institute's augmented reality project in Spanish Harlem, NY, for which she helped bring in a Rockefeller Foundation Cultural Innovation Award. Guest professorships at Carnegie-Mellon University, UC/San Diego, Bauhaus-University Weimar, the Berlin University of the Arts and in 2014 at Nanyang Technological University/Singapore.