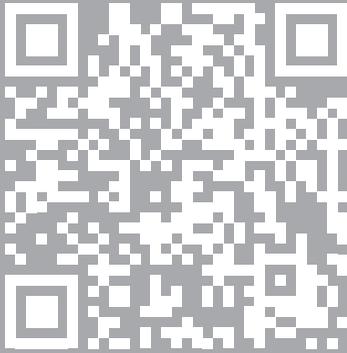
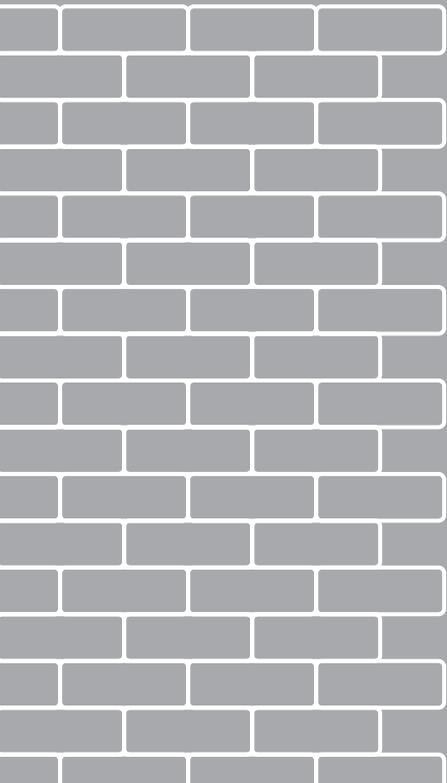




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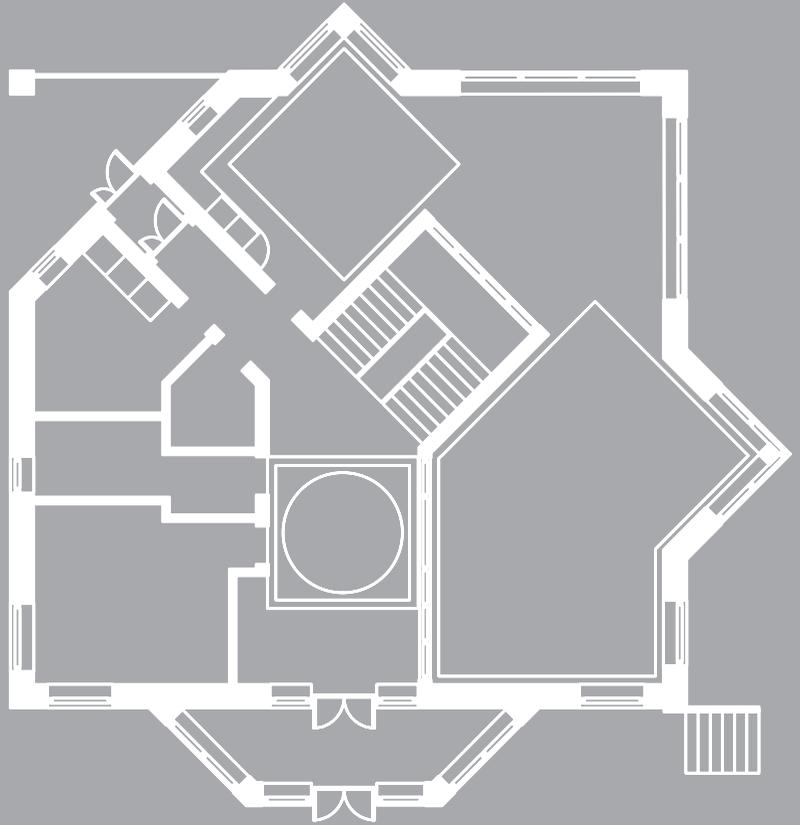
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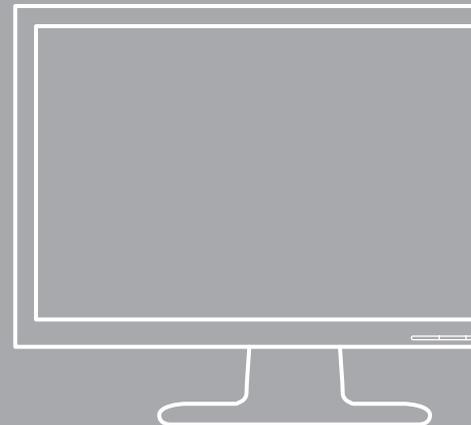
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EDITORS **ÖZDEN ŞAHİN**, **JONATHAN MUNRO** AND **CATHERINE M. WEIR**

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 THERE



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LEONARDO ELECTRONIC ALMANAC, VOLUME 19 ISSUE 1

Not Here Not There

VOLUME EDITORS

LANFRANCO ACETI AND RICHARD RINEHART

EDITORS

ÖZDEN ŞAHİN, JONATHAN MUNRO AND CATHERINE M. WEIR

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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 led 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-

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).

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

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

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 by-passing 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

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 handshakes 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

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Augmented Resistance: the possibilities for AR and data driven art

by

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AUGMENTED REALITY

Augmented Reality (AR) is a problematic term in itself but as with much in the field of 'New Media' it appears that for the moment, we're stuck with it. The term was originally coined by Tom Caudell and David Mizell ¹ in 1992 for applications in aircraft manufacturing at Boeing. It was associated in the 1990s with virtual reality type headsets with prototypes like the *Touring Machine* ² and *Map-in-the-Hat* ³ which were accompanied by weighty backpacks carrying the necessary computing, GPS and communication equipment, which today fits in a cellphone. Even today the HUD (Heads Up Display) paradigm still has traction as demonstrated by Google's recent *Project Glass* ⁴ announcement, however despite Google's intervention, the HUD as a model of AR still exists in the nostalgia of "yesterday's tomorrows." ⁵

This association of AR situated somewhere along the real-virtual continuum, not quite real but not fully virtual either, serves to situate the practice in a scenario which I suggest looks toward the utopian values/ambitions of virtual reality and as such runs the risk of not attending to the real value of AR, which is its ability to contextually situate data. It is necessary to further distinguish the version of Augmented Reality (AR) currently available for mobile devices from the richer conceptualization of augmented space as articulated by Lev Manovich ⁶ which encompasses the gamut of the distributed information resources and is not confined to ubiquitous and pervasive computing and the myriad ways in which computational power is embedded in the fabric of the city.

ABSTRACT

This article discusses the possibilities for Augmented Reality (AR) as a driver of data based art. The combination of AR and Open Data (in the broadest post-Wikileaks sense) is seen to provide a powerful tool-set for the artist/activist to augment specific sites with a critical, context-specific data layer. Such situated interventions offer powerful new methods for the political activation of sites which enhance and strengthen traditional non-virtual approaches and should be thought of as complementary to, rather than replacing, physical intervention.

I offer as a case study this author's "NAMALand" project, a mobile artwork which uses Open Data and Augmented Reality to visualise and critique aspects of the Irish financial collapse. The project, overlaid Dublin with an activist derived data-layer which supported and enabled physical interventions, making visible/concrete abstract financial dealings through situating them in real space, enacting a virtual layer of critique which facilitated and catalysed wider debate.

(AR) in its current popular articulation working on mobile devices through platforms such as Layar, Junao and Wikitude ⁷ is a more prosaic affair, designed as a device led experience offering a limited set of procedures involving the overlaying of dynamic, context specific data over live 'camera-view' of physical space. Typically this information is scraped from a geo-tagged database and serves information such as proximity of train stations, cinemas and nearby tweets. More recent developments include the display of 3D models and the ability to trigger actions, such as playing an advertising video, through image recognition leading a push to monetize the technology through AR advertisers tie-ins.

It is important however to look beyond the limited nature of many of the applications currently available for AR browsers to attend to the affordances of these

platforms. I draw attention to the ability to import and locate geo-tagged databases which offer an unprecedented opportunity for the political activation of sites with large scale data-led critiques working in tandem with physical intervention.

Despite the limitations of AR browsers they point to the convergence of a burgeoning world of open and accessible data, much of it geo-tagged or available for geo-tagging, with the ability to generate location specific overlays. AR is an emergent technology, the application of which is still uncertain. Ben Russell identified a similar openness in earlier locative technologies which he saw as seeking "grassroots and consumer level interpretation of what these devices are," ⁸ in these emergent AR systems there is a similar sense of a technology seeking usages which are meaningful to the broadest constituency. . This presents an oppor-

tunity to artists and activists to set the agenda for this technology, to establish it as a tool for location based annotation and critique for which it is ideally suited.

This opportunity coalesces around two factors. The first is Open Data, the EU recently put a value of €27 billion ⁹ on the market for open data and it is seen as variously democratic, a boon to the smart economy and so forth. Whatever the merits of the Open Data discourse it has incentivized cities and governments resulted in the release of vast swaths of data, representing a significant opportunity. AR platforms represent the second, they offer an ease of use and are available as apps for a range of location aware smart phones. While flawed, overly defined, and with limited opportunities for customization, they represent the first step in AR, and they will improve.

DATA DRIVEN ART

In considering AR art and data it is important to locate the discussion within an artistic tradition of using data (open or otherwise) as a tool of political critique within an art context. I see the potential for the convergence of data space and real space which AR offers as situated within this tradition and will trace this through three artists who have exerted direct influence on the NAMALand project, these are Hans Haacke with his seminal *Shapolsky et al. Manhattan Real Estate Holdings, A Real Time Social System, as of May 1, 1971*, Mark Lombardi's data based drawings and Josh On's *They Rule*.

The case of *Shapolsky et al.* is of particular interest as it was a data rich installation detailing ownership of 142 (mostly tenement) properties and sites in New York City in the ownership or effective control of the Shapolsky Family. The work was based on data derived from publicly available records, assembled and

refined, in the case of obfuscated records designed to conceal effective ownership, by the artist. The work reveals the city as a real estate system, uncovering its complex structure and demonstrating the ways in which the physical fabric of the city, and the arcane financial dealings designed to maximise the value of real estate holdings, are imbricated. It expands the idea of site beyond physical location to include its associated data space. This serves to activate these sites through providing a socio-political narrative, transforming individual buildings through augmenting them with data. Situating them within a complex network of property and financial transactions, with far reaching repercussions of the space of the city and the everyday lives of the people living in these slums. ¹⁰ The piece was to be exhibited in the Guggenheim Museum, but the exhibition was controversially cancelled before its opening in April 1971 with the specificity of the work cited as the principle reason. The museum Director held that social issues should be addressed "artistically only through symbolism, generalization and metaphor." ¹¹ What caused the work to be suppressed was the specificity of the critique, which data supplied, whereas a generalized artistic critique would have been acceptable demonstrating the power of the data-based critique.

The artist Mark Lombardi is known for his large scale data based drawings or "narrative structures" which detail the networks of power and money involved in various political financial scandals such as the collapse of the Bank of Credit and Commerce International detailed in *BCCI-ICIC-FAB, c. 1972-1991, (4th Version), 1996-2000*. For each drawing Mark Lombardi built a custom database culled from published information sources assembled onto cross referenced index cards, according to his gallerist Deven Golden, he had around 14,000 of them, ¹² which were then condensed to create his drawings. Lombardi considered these as a method of "reprocessing and rearranging" freely avail-



NAMALand, 2010, Conor McGarrigle, AR Layar. © Conor McGarrigle.

able information as a way of mapping the political and social terrain. ¹³ The painter Greg Stone recounts the reaction of a friend, a reporter at the Wall St Journal, on seeing Lombardi's "George W. Bush, Harken Energy and Jackson Stephens" drawing, although he was familiar with the characters in the narrative, said he "hadn't fully understood the implications until he saw it all laid out that way." ¹⁴

Josh On's web based work *They Rule* pursues a similar mission of making connections between networks of powerful individuals, this time connected through corporate directorships once again drawing from publicly available databases. *They Rule* provides a front end interface to its underlying databases which allows users to make their own connections and share them with other users. As a work of art, it presents a framework to interface with the data, inviting its users to provide the narrative structure and co-construct the meaning. Originally powered from a custom database of directorships of the top 100 companies in the US, it now employs the database of LittleSis, "a free database of who-knows-who at the heights of business and government." ¹⁵

These projects illustrate that the power of data art lies in its ability to re-present information in ways which make the connections evident, presenting the information as narrative and in ways which reveal the

underlying structures and patterns. How then can ubiquitous networked location-awareness of mobile devices and emergent AR add to this tradition, and in an era where data and its use have assumed a greater importance than ever before, what has art practice to contribute to this burgeoning field? At this point, I will introduce a case study of a recent work which follows in the tradition of data art. It is a work which does not claim any technical innovation, created for an existing platform and built using free and open source software, but it offers a powerful example of the ways in which data can politically activate sites and, I suggest, a model for connecting data and space to create an activist hybrid-space.

NAMALAND

NAMALand is a mobile AR artwork, built on the Layar platform, ¹⁶ which uses Open Data and Augmented Reality to visualise and critique aspects of the Irish financial collapse, through an overlaying of the city of Dublin with a database driven data layer which identifies properties under the control of NAMA (The National Assets Management Agency). NAMA is an Irish Government Agency established in December 2009 to acquire bad property loans from Irish banks with the aim of removing them from the banks' bal-

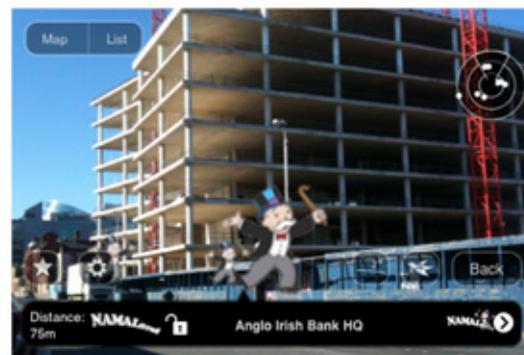
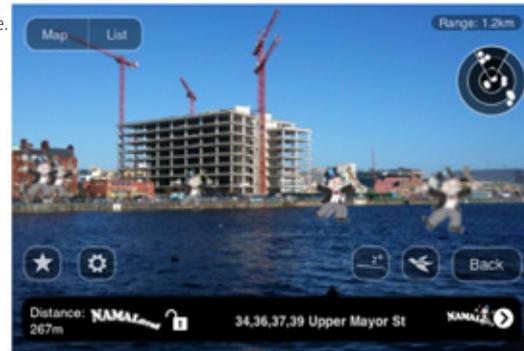
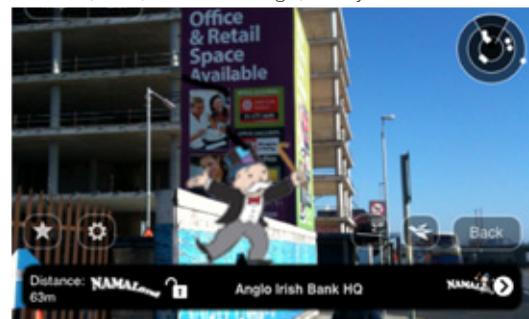
ance sheets as a bailout mechanism. The agency, which was controversial from the start, acquired properties worth €54 billion but failed in its stated aim of bailing out the banks, culminating in Ireland entering an IMF/EU bailout program in November 2010 due to the imminent collapse of the banking system. Despite (or perhaps because of) its central role in the financial collapse NAMA was extremely secretive in its workings. Legally exempted from Freedom of Information requirements, the agency was intent on shielding its property portfolio, individuals and corporations involved, from public scrutiny under the guise of 'commercial sensitivity.' Building on Hans Haacke's treatment of the Shapolsky real estate and New York City, it was obvious that mapping out NAMA's property holdings was essential to gain an understanding of the organisation and events which led to its creation, in order to open it to critique and scrutiny.

After some research, I was able to identify an alternative, activist source of information on NAMA properties on the anonymous website NAMA Wine Lake.¹⁷ Maintained as a Google Docs, the NAMA-bound spreadsheet was compiled from published sources of information connecting property developers known to be in NAMA, their directorships of companies and

properties controlled by these companies. Each entry was well documented with links to the sources, important in a litigious climate. This data was, however, locationally vague, street names were typically included with vague descriptors such as "site on Mayor St" but lacked in sufficient detail to automatically geo-tag. With further research, it was possible to initially manually geo-tag approximately 120 Dublin properties through visually identifying the sites in person and tagging them with a handheld GPS unit. For legal reasons¹⁸ the database had to be confined to properties which could be located with a high degree of certainty for which sufficient documentary evidence of their ownership could be provided. This data was then used to create a geotagged MySQL database to be used as the data source for NAMALand.

The application was built in October 2010 and has been updated on a regular basis since. It employs the Layar platform which provides a development environment and software platform to create AR applications which run on the Layar App for the iPhone and iPad, Android devices and selected Nokia and Blackberry smartphones. Layar provides a standardized user interface, with limited options for modification, and supplies a set of standard AR methods upon

NAMALand, 2010, Conor McGarrigle, AR Layar. © Conor McGarrigle.



RECEPTION AND ACTIVATION

which Layers can be built. It was selected for two reasons; the first was ease of use, it imports a database effectively and is a working reasonably robust AR app which can be used with a minimum of development. Secondly it provided a method of publishing a politically sensitive work on the iPhone (at the time the most popular smartphone platform in Ireland) as layers are submitted to Layar's own approval process and publishing through the Layar iPhone app, effectively evading the app store gatekeeping, essential for a political sensitive app working with grey unofficial data.¹⁹

The NAMALand layer in operation takes the location of the user's phone and compares it to this database of geotagged properties of NAMA properties within certain defined ranges. An overlay of properties within the specified range is then created which can be further interrogated for ownership details (the majority of properties in NAMA are associated with a small number of individuals with vast property holdings and billions in defaulted loans). The location of each response is indicated by an overlay of a cartoon "Monopoly Man" figure over NAMA properties in the camera-view of the user's device. It also generates a real time map of localised NAMA properties along with a list of nearby properties and their locations. NAMALand thus visualizes the extent of NAMA property ownership, allowing users to identify nearby properties and interrogate specific regions of the city for NAMA connections. It was the first mapping of NAMA properties available, and eighteen months after its creation, it is still the only available mapping of NAMA properties available in Dublin.

NAMALand succeeded in capturing the popular imagination in Ireland. It was widely reported in the mainstream media including an interview and report on the Nine O'Clock News on RTE (the Irish national broadcaster), I have been frequently interviewed on radio, and it has featured in the print media on many occasions. I'm regularly contacted by international journalists writing segments on the local reaction to the financial collapse. The title 'NAMALand' has even entered common usage as a descriptor for the post IMF bailout situation. In the midst of my extended 15 minutes, the project has more importantly succeeded in focusing attention on its subject matter where more traditional approaches failed. It overcame official attempts to limit information and discussion on the subject, and has acted as a conduit through which concerns over the lack of transparency inherent in NAMA which focused, and kick-started, the NAMA backlash which has yielded some positive results.

On one level, it operated as a mobile app, a ready to hand source of information locating NAMA properties as a myriad of other apps locate coffee shops and restaurants, gaining 45,000 users in the process. How-

NAMALand Walking Tour, 2011, Conor McGarrigle. Participatory Walk. © Conor McGarrigle.



ever as an intervention, particularly one with political aspirations it was not sufficient to remain as a 'virtual intervention,' and needed to operate in conjunction with physical actions to be effective. In this respect, it was vital that the project was expanded to include real world events such as walking tours, situated public discussion forums, public speaking engagements, media coverage and individual interventions with the work itself being an amalgam of all its constituent components. These were all supported and enabled through the data layer made visible through the application of AR technology, offering multiple points of entry and modes of engagement with the project which were not technologically dependent and open to as broad a constituency as possible.

Indeed as the project disseminated it became clear that many of the people who spoke to me, of the project, were not actually users, as they did not have a phone capable of running the application. Their experience of the project was second hand, passed to them as a story which resonated as a tale of resistance. Somebody had used mobile technology to reveal a list of NAMA properties despite efforts to keep this information secret from the public. It was not even necessary to see it in operation, it seemed to be enough to know that it had been done. The walking artist Francis Alÿs speaks of his work as myth making, he sets out to "keep the plot of a project as simple as possible so that it can be told as a story, an anecdote, something that can be transmitted orally without the need to have access to images."²⁰ *NAMALand* similarly has a clear narrative that can be told as a story, which means that even without access to the requisite technology the project still succeeds at some level. Not only does *NAMALand* recount a story about NAMA and its consequences, but from the point of view of AR it speaks of the technology and its uses. For this emergent technology, this is significant for it is through practices that functions and usage modes of technologies come to light, and their relative value and importance is revealed.

At another level, it acted as a catalyst, facilitating a range of conversations, debates and activities as part of a wide ranging critique of NAMA and the sequence of events which led to it. The project crossed boundaries from art to geography, urbanism, activism, open

data, economics and politics as one would expect from work which engages critically with the space of the city and international finance. As the project became known through publicity and word of mouth another side of the project was revealed from the diversity of the discussions. From the Occupy Dublin camp one day to city-sponsored seminars on Open Data and the smart economy the next, this was its ability to function as a conduit which reconnected NAMA with the space of the city, a connection which had been deliberately severed, to preserve the idea of the agency as a by-product of obscure international financial dealings. What *NAMALand* contributed was an opening up of previously unavailable data and a re-connecting of this data with the fabric of the city itself. This served to add specificity in place of generalization, fuelling debate through the provision of an infrastructure on which specific spatial critiques could be structured, supplying a point of entry hitherto unavailable.

PERIPATETIC ACTIVISM

The project was accompanied by a series of walks informed by the mobile application which took place in Dublin City Centre and in Tallaght two areas characterised by a high concentration of NAMA properties. These were public, as with the *NAMA-Rama* walk in conjunction with Market Studios, the *In These Troubled Times* walk with RuaRed Arts Centre and *Ireland after NAMA* with The Exchange Arts Centre, and private walks, such as the guided walks for RTE News and Channel Four News TV crews. In this way, the project bridged the gap between the abstract dataset hosted in an online database and the real space of the city. *NAMALand* is essentially a walking project, it is necessary to deploy it on the street for it to operate at all. The guided walks, through careful selection of routes, were able to maximise this impact by proceeding through areas of the highest concentration of land-



NAMALand Walking Tour, 2011, Conor McGarrigle. Participatory Walk. © Conor McGarrigle

mark buildings and, as participatory events, functioned as walking forums facilitating participants in discussing the issues represented by NAMA and its property portfolio. NAMA represents a complex system of abstract financial dealings, transactions which have become disconnected from everyday understanding but yet have significant and very real consequences. The project and its walks attempt to counter this growing abstraction of space, they operate in hybrid space,²¹ that is "a convergence of geographic space and data space"²² where the distinctions between Castell's²³ space of place (physical space) and the space of flows (informational space) collapses with the overlaying of context sensitive data. Whereas the narrative of NAMA was the narrative of the (now defunct) property market, international finance and IMF bailouts, *NAMALand* reconnects this to real spaces in order to expose their interconnectedness and real consequences.

In my presentation of *NAMALand*, in every interview and talk, there was always included two direct prac-

tical demands, especially in conversation with City officials, the release of more information on NAMA properties and the making available of vacant properties for community use. These became part of the general conversation on NAMA and have achieved results, both through foregrounding the issues of NAMA properties and their usage and in opening access to properties. *NAMALand* has informed and influenced groups which have taken direct action through occupying NAMA properties, acting as a resource on which further actions can be built. Dublin City opened direct negotiations with NAMA to access vacant properties under their control for social and cultural use. This has resulted in a city program which allocates vacant buildings for cultural uses with substantial premises being made available. This has been accompanied by the release of more information on NAMA property which, while not nearly complete, has fed the growing demand that vacant properties be opened for community use.

NAMALand Walking Tour, 2011, Conor McGarrigle. Participatory Walk. © Conor McGarrigle



THE FUTURE OF AR ART

If we step back from the particularities of the platform and the case study to consider the implications of this project and similar practices on our understanding of the practice of AR.

I argue elsewhere²⁴ that artistic practices which engage with emergent technologies are involving in a process of shifting the understanding of these technologies. As Richard Coyne puts it “technologies do not conform politely to predetermined or intended functions,”²⁵ rather it is through the use that functions and usage modes come to light and their relative value and importance is revealed. AR as it stands is being promoted as a marketing technology, with the principle AR browsers developing corporate tie-ins using image recognition to replace QR codes in conjunction with location based AR applications. The technology is being thus presented and developed as a method of connecting companies with their customers in real space. While these applications will be a feature of the mature practice of AR, they are, to invoke the developers of the Urban Tapestries public authoring project, “unnecessarily impoverished.”²⁶



NAMALand Walking Tour, 2011, Conor McGarrigle. Participatory Walk. © Conor McGarrigle.

I argue for the role of art practices in broadening the understanding of the technologies' application through expanding their range of application and permitted usages. *NAMALand* demonstrates one such application, but the potential for these tools is only limited by the data-sets which can be accessed and the desire by artists and activists to engage with them as part of their practice. At an everyday level this might be the difference between AR enabling a retailer to deliver location-aware special offers and deals to a customer's phone alongside the ability of the user to interrogate the retailer's history on a range of issues from health and safety to their environmental record or simply customer satisfaction. This is not necessarily to privilege one over the other. Both have their place but what is of the prime importance is that multiple options co-exist as aids to informed decision making, where the user can offset say a welcome 30% reduction in the price of a cup of coffee earned by checking-in against the companies anti-union policies.

NAMALand is an application of AR technology which has reached a wide audience through usage, mainstream media accounts and word of mouth, as a result of addressing specific local issues (with arguably a wider import). This success establishes AR as a tool of political critique which can reveal and situate information and data of political significance. This assumes a greater importance when connected to the burgeoning Open Data movement. Open Data seeks to make freely available data collected by government and city authorities both in the interests of transparent government and as an impetus to the smart economy. As new sources of data become available there are opportunities for artists and activists to go beyond the rhetoric of the smart economy and develop critical narratives based on this newly liberated data. If AR art practices are to shape the technology, expand the range of practices and establish the technology as a tool for enhancing and critiquing everyday life, then these practices must resonate with their audience and assimilate themselves into the technology through establishing meaningful connections to the every day. This is the challenge for AR art. ■

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CONOR MCGARRIGLE

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?

I'm not sure it is that productive to think of an inside or outside of the art world. Certainly we can speak of an art world, or more accurately an art market, orientated around the gallery system, art fairs, museums and so forth. If we're speaking about making art in all its forms I think the boundaries are very porous with artists operating successfully within that narrow art world ecosystem while still retaining a wider relevance.

I'm not especially interested in critiques or interventions which only refer to art world concerns unless there is a broader context, they have their place, but it's not part of my practice. An important lesson of conceptual art is that the art world can recuperate any art movement if it so desires, so certainly assuming positions which are self-consciously 'outside' or constructed as oppositional in relation to the art world can be seen as operating tactically within the logic of the art world.

I'm interested in interventions which serve a purpose, any intervention must draw its validity from the co-gency and strength of the critique rather from the operation of critique as an end in itself. Interventions which have a wider relevance typically operate across any number of interrelated fields with commensurate differences in the ways they are interpreted and understood. For example, I've presented my NAMALand project in the context of art, geography, urbanism, politics, technology, activism and even the smart economy and in each situation there are subtle differences in its reception.

"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?**

I have to admit I'm deeply uneasy with the concept of the virtual artwork with its connotations of virtuality, which seems to point to a previous era. I prefer to think about works which operate in hybrid space where the delineation between online and offline, real space and virtual space is blurred. This for me is where AR art becomes interesting, when it can over-layer space with a context specific data layer. In the Headmap Manifesto, Ben Russell speaks of every place having invisible notes attached, I like to think of every place being augmented with its own invisible database driven critique which can be interrogated with that most ubiquitous of devices, the mobile

phone. I think the question of the boundaries of the artwork is particularly interesting when considering work which must operate within the confines of tightly constrained platforms. Much AR work, for example, is produced for platforms such as Layar which open augmented reality to a wider constituency, but at the cost of leaving little room for the artist's 'hand' in the coding and production process. This does beg the question that if the work is built on a platform the artist has not produced, with limited scope for transformative appropriation, where does the artist's 'hand' so to speak, lie? How does the artist evade the levels of scripting which are inevitably embedded in the platforms employed? I see the 'work' in this context moving from the object and its reception to the practice of the work; that is the way in which the artist interprets the technology and devises new usage modes for it. In my work, this entails leaving the work sufficiently open so that participants can engage with the work, build on it and make it their own, hopefully expanding the work beyond my intentions. In connecting data with site through the application of AR the work doesn't function as an object, but rather as an enabling act which sets in place the conditions necessary for further actions. I see Virno's notion of the virtuosic performance as "an activity without an end product" as significant in this respect.

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?

I see the potential for data driven art being enhanced tremendously with ubiquitous location-awareness and network access, so I draw inspiration both from data

driven art and art involving spatial interventions. In terms of data driven art Hans Haacke's seminal 1971 work "Shapolsky et al.," detailing the ownership of tenement buildings in New York City is a touchstone. Its Guggenheim exhibition was infamously cancelled, but one can imagine it working very effectively as an AR piece to counter its censoring. The drawings of Mark Lombardi and Josh On's *They Rule* are similarly illustrative of the ways in which data driven art can visually and forcefully make the connections between data and issues, transforming the abstractness of databases into hard critique. As the Open Data movement gathers pace we're seeing more and more data made available and the challenge is to interpret and transform these data sources in meaningful ways. Works like these show what's possible.

If augmented reality interventions are to be successful it's important that they operate as spatial interventions first and avoid becoming overly technology focused. Work that is enacted in space needs to be effective at this level, with the technology augmenting the primary spatial experience. In this I draw inspiration from the long tradition of artistic spatial interventions and walking art which demonstrate the power of small interventions to re-think and re-imagine space. The influence of Fluxus is certainly central to this as is the Situationist *dérive*. I return to works like Vito Acconci's *Following Piece*, Adrian Piper's *Catalysis* series, and Robert Smithson's *Tour of the Monuments of Pas-saic* for inspiration. The contemporary urban interventions of Francis Alys are an influence as are the Stalker Group's "Transurbances" of the mid 1990s, with their focus on the liminal spaces of the city. I look to the critical spatial practice of this type work and question the ways in which location-aware technologies can expand and build on these traditions.

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?

I don't think they necessarily are, but while I declare the work to be art, I'm also content for it to be interpreted differently. I recognise and appreciate that they operate at a number of levels. Recent works such as NAMAland which used Open Data and Augmented Reality to visualise and critique aspects of the Irish financial collapse have reached a wide audience through engaging with issues of broad concern. My concern with this work was to address specific issues for which discussion had been stalled due to deliberate withholding of information. By making available this augmented layer of critical, activist derived data the objective was to seed this across as many forums and interest groups as possible. The project crossed boundaries from art to geography, urbanism, open data, economics and politics, as one would expect from work which engages critically with the space of the city and international finance. So for me its position vis-à-vis contemporary aesthetics is a moot point.

What has most surprised you about your recent artworks? What has occurred in your work that was outside of your intent, yet has since become an intrinsic part of the work?

What always surprises me is the way that individual works are received, taking on a life of their own beyond, perhaps, what I originally intended. The reaction to my NAMAland project was typical of this, but the scale of the reaction was quite unexpected. It was quickly taken up by the mainstream media with interviews on the main evening TV news, radio, newspapers and magazines reaching a large audience in a short space of time. While it obviously dealt with an issue of broad appeal, I was surprised by the extent of the response as it became, in effect, part of a wider discussion on the IMF bailout. Even its title, NAMAland,

has entered into general usage as a descriptor for the post-bailout situation.

Initially I had planned the work as a short term project; make the AR app, release it and move on, however the level of interest in the work was so great that I felt it necessary to broaden the project which I did with NAMAland walking tours. These expanded the work, beyond being purely device led, into a richer on-going engagement with the space of the city and, most importantly, developed into mobile walk-and-talk forums to engage with the issues addressed in the work. This audience led aspect transformed the project into a deeper more sustained engagement. In hindsight I could say that the project's audience saw its potential more clearly than I did. ■

CONOR MCGARRIGLE

statement & artwork

As an artist working with 'new' and locative media my practice engages with digital media technologies,

not as autonomous devices or technology but as social actors which impact, mould and tune our everyday experience. My recent work has focused on place and spatial practice(s) mediated through ubiquitous and pervasive digital technologies. My current practice is thus a hybrid one which acknowledges the collapsing of distinction between the networked and physical worlds, operating in the resulting 'hybrid space,' where the interplay between the digital and the physical produces new spaces and new social practices.

Much of my recent work is enacted at street level, typically as generative walks or tours mediated through location-aware digital technologies and mobile applications, which over-layer real space with conceptual re-mappings. These works function both as novel methods of engaging with technology with their subtle shifts of usage modes, and as approaches toward providing frameworks and structures to engage with the city as a space of encounter. 1 Rather than producing works which are complete and finite, I am more interested in providing artistic tools and procedures which can be adopted, renegotiated and expanded on by their participants. In this way, the work involves a shifting of authorship with participants granted

NAMAland Walking Tour, 2011, Conor McGarrigle. Participatory Walk. © Conor McGarrigle.





Mad Men: the Bittorrent Edition, 2011, Conor McGarrigle, video.
© Conor McGarrigle.

agency to infuse the work with their own concerns and incorporate it into their own practice.

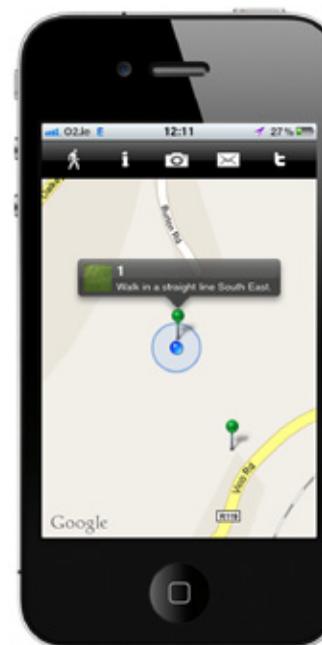
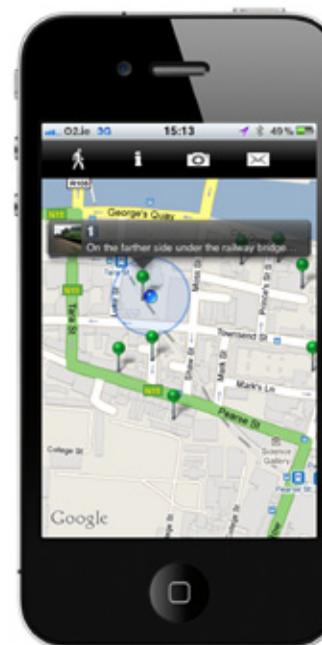
My work follows in the tradition of the walking artists; drawing inspiration from the spatial practices of the Situationists (and offering a contemporary take on the *dérive*), Robert Smithson, Richard Long and Hamish Fulton, Fluxus interventions and the contemporary interventions of the Italian Stalker Group and Francis Alÿs. The work is also indebted to the pioneers of locative media whose influence is to be seen in the form that location-aware technologies are taking as they become part of the everyday.

Katherine Hayles sees the information intensive environments of ubiquitous and pervasive computing as challenging us to use them in “constructive and life-enhancing ways without capitulating to [their]

coercive and exploitive aspects.”² I respond to this challenge and see it as central in new media art’s engagement with new and emergent technologies, which has agency in their reframing, in shifting our understanding of them so that they are available to a broader constituency of users to enhance the everyday. My work strives to maintain a critical relationship with its technology. To keep “thinking of technology as a question, and therefore to keep it *in* question.”³

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WalkSpace, 2011, Conor McGarrigle, iPhone App. © Conor McGarrigle.

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