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Graffiti-media: How graffiti functions as a model for new media futures
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This paper begins from the observation that forms of new media have regularly appropriated graffiti as a model for their operation, either as an aesthetic device for the design and marketing of commercial new media hardware and software or as a conceptual tool for understanding, producing and interfacing with users and the urban environment. I use the term ‘appropriation’ here not to suggest that this use of graffiti is inappropriate or inauthentic but to draw attention to the fact that it is a particular version of graffiti that appears in the world of new media. That is, specific aspects of the diverse practices of contemporary graffiti appear useful to new media practice.

For instance, the tradition of graffiti that begins in New York in the late 1960s and evolves into a highly stylised visual language of tagging and complex murals is common in new media work. In contrast, European traditions of political graffiti from the 1960s or figurative spray can stencilling are more marginal. Appropriation itself is central to the both these traditions – in New York, early graffiti on subway carriages quoted images from cartoons and advertising, while stencilling also borrowed heavily from art history and popular culture. So, rather than demand that new media engage only with ‘authentic’ graffiti forms, this paper asks what kinds of things does graffiti provide new media, and how can thinking about the relationship between graffiti and emerging technology inform new media futures.

Graffiti provides both content and concept for new media work. On the one hand, it provides a visual style and a certain sub-cultural cachet, that gives emerging technology an illicit, anti-authoritarian resonance. For example, the *Escape From Woamera* website notes, “the videogame is the most rapidly evolving, exciting, subversive and feared cultural medium in the world today. It’s akin to graffiti on the cultural landscape.”¹ Graffiti also makes available models for thinking about writing, textual interfaces, visual literacies and forms of navigation, sociability and broadcasting in contemporary city spaces. Much graffiti, particularly the tradition of tagging originating from New York, also provides a model for an individualised, highly mobile, geographically engaged subject that is not dissimilar from an ideal, late-capitalist consumer. As Iain Sinclair notes in his analysis of London graffiti, “the [graffiti] tag is everything, as jealously defended as the Coke or Disney decals. Tags are the marginalia of corporate tribalism. Their offence is to parody the most visible aspect of high capitalist black magic.”¹

As Sinclair suggests, graffiti does not provide an escape from the conditions of late capitalism, for not only are graffiti forms highly commodified and visible in commercial art, design and advertising, the cleaning and prevention of graffiti is itself a growth industry, which has itself harnessed new media technology. While it is tempting to group the work of new media artists and oppose this to the ways in which

¹ Iain Sinclair, *Lights Out for the Territory* (Granta: London, 1998)

new media technology has been used in anti-graffiti initiatives, what is immediately striking are the similarities between these two categories.

In surveying key new media works involving graffiti, this paper examines projects under the categories of archiving, textual interfacing, tagging, mapping urban space and security. In particular, it looks at how new media's appropriation of graffiti functions: which particular styles or traditions of graffiti are used, how the two formations are combined and what this has to say about the possible future of creative practice in new media. Also, as someone interested in the recent global history of graffiti, this is an opportunity to think about how new digital versions of graffiti can retell the history of graffiti as a popular medium itself, and the role of diverse media forms – photography, film, video, magazines, the Internet – in producing graffiti as a globalised cultural practice.

Archiving

The sheer number of examples of graffiti in cities such as Melbourne, their geographic spread and ephemeral character make any comprehensive archiving a near impossibility. Although no single store of images exists, graffiti practitioners, researchers and police have been selectively photographing graffiti in Australia since the 1950s, each with their own set of criteria. For example, graffiti practitioners routinely record their own work, or other graffiti considered to have aesthetic value, while police photographers in Victoria record examples of graffiti as evidence of offences committed under the Summary Offences Act (1966), the Transport Act (1983) or the Transport (Infringements) Regulations (1999).

This uneven archiving of graffiti has been transformed by digital technology and the Internet. For example, one of the first graffiti websites and now a major hub for graffiti on the Internet is the *Art Crimes* site, begun in 1994 by Susan Farrell with a few photos of graffiti in Atlanta and Prague. The site now contains thousands of images from 445 cities and attracts 30,000 hits per day.² *Art Crimes* archives a particular type of graffiti deemed to have aesthetic value, with the site's authors claiming that they want to “spread the truth that this kind of graffiti, called ‘writing’ is being done by *artists* who call themselves ‘writers,’ not by gangs” (original emphasis).³

However, the web has also been used to archive information for the purpose of reducing graffiti. Apart from private law enforcement data-bases, there is also a burgeoning network of anti-graffiti groups, such as *GriT*, the *Graffiti Response and Information Team*, a community initiative developed in Alberta, Canada to store and share intelligence, statistics and photographs of graffiti with the aim of apprehending graffiti practitioners.⁴

More broadly, electronic databases such as *The Graffiti Solution* program provided by KAM Konsult are used to record graffiti damage and calculate the cost of cleaning. Graffiti cleaning industries also make use of new media technology to archive the successful cleaning of graffiti. Workers at Melbourne company Glad Cleaning use a

² <http://www.artcrimes.com/index/story.html>

³ <http://www.artcrimes.com/index/story.html>

⁴ Draper, Rick, “From Global to Local: Technology Joins the Battle to Eliminate Graffiti Vandalism” GRiT folded in May, 2004 due to a lack of resources and success.

smart phone that includes web access and a digital camera: “When we see graffiti we can write down a description of it and take a picture. So if another graffito is done we can prove it’s been cleaned up.”⁵ In the UK, Lewisham council are encouraging residents to report incidents of graffiti and other anti-social behaviour by sending picture evidence via their camera phone.⁵

In all of these archives, the representation of graffiti remains problematic, as photography, far from resulting in a transparent system of representation, typically results in a generic series of images divorced from location or context, a pattern that is only enhanced with the prevalence of digital images.

A number of new media projects have combined an archiving system with a geographic mapping of the location and context of graffiti. Researchers from the Australian National University have used Geographic Information Systems (GIS) technology to map instances of graffiti in Wollongong, as part of a study investigating the spatio-temporal links between physical disorder and fear of crime in urban spaces.⁶ The structure of this investigation is very similar to a website designed by Cassidy Curtis that chronicles the evolution of graffiti in key sites around San Francisco. The Graffiti Archaeology Project overlays photographs of graffiti from the mid-1980s to the present, allowing the view to navigate through the visual evolution of the site, and presenting a “timelapse collage, made of photos of graffiti taken at the same location by many different photographers over a span of several years.”⁷

Textual interfacing

The term ‘graffiti’ has been used to describe textual interfacing systems, such as that pioneered by the Palm Pilot Personal Digital Assistant (PDA) device. The Palm Pilot’s Graffiti system allowed users to draw a series of stylised letter-forms using a stylus on the Palm Pilot screen, in place of a key board. The Palm Pilot’s Graffiti Alphabet pared down the process of drawing letters, with recognition based on the topological structure of the letter rather than the end result.

This digital analysis of graffiti forms is also present in anti-graffiti technology, such databases that scan graffiti tags, completing the task formally performed by hand-writing experts in proving a suspect is responsible for several different graffiti scrawls. Like Palm Pilot Graffiti, these systems, which are to be trialled by several local councils in Australia, attempt to simplify the complexities of the material, bodily and psychological aspects of writing using digital technology.⁸

On the same track is New York art student “Fi5e,” whose *Graffiti Taxonomy* project “digitally captures the motions used to make a tag. One recorded, the data is analysed

⁵ “Londoners encouraged to report graffiti by camera phone,” New Statesman New Media Art Awards 2005 Weblog, March 10, 2005, <http://www.newstatesman.co.uk/nma/nma2005/dispatches/archive/2005/03/10/camera-phone-clean-up/>, accessed March 12, 2005

⁶ Doran, Bruce J. and Brian G. Lees, “Using GIS to Investigate Spatio-Temporal Links Between Disorder, Crime and the Fear of Crime,” paper presented at the Graffiti and Disorder Conference, Brisbane, August 18-19, 2003, <http://www.aic.gov.au/conferences/2003-graffiti/doran.html>, accessed August 5, 2005

⁷ <http://www.otherthings.com/grafarc/about.html>, accessed August 4, 2005

⁸ see http://www.parklane.com.au/scripts/citynet/aw_get.oci?code=7585, accessed August 5, 2005

and used to create visualisations based on the speed and direction of the original movements.”⁹ *Graffiti Taxonomy* used the structure of existing graffiti tags in New York City as source material to further extend graffiti’s aestheticization of letter-forms. While the project followed the anti-graffiti recognition systems in simplifying the visual elements of the tag, this was then used to proliferate letter designs based on this formula, rather than compare single examples. “Fi5e’s”*Graffiti Taxonomy* was then fed back into the spaces of graffiti through a series of posters on hoardings.

Tagging

Digital graffiti, defined as “public annotation of multimedia content” or a system supporting “contextual asynchronous discourse,” has been another common appropriation of graffiti in the realm of new media.¹⁰ Typically using a combination of mobile and web-based technology, users can attach text or image to a particular geographic location, marked with a sticker and code (in the case of *Yellow Arrow* art project, Fig. 1) or with a handwritten email address, as in John Geraci’s *Grafedia* project.¹¹

⁹ The Graffiti Analysis project “makes visible the unseen movements of graffiti writers in the creation of a tag. Motion tracking, computer vision technology and a custom C++ application are used to record and analyze a graffiti writer’s pen movement over time. These gestures are processed and used to produce algorithmically generated digital projections which appear at night in motion on the surfaces of buildings in New York City. Relationships are created between analogue and digital graffiti styles, forming a link between traditional graffiti, experimental street art and new media. Graffiti is re-presented in the language of information analysis, offering a system for greater understanding of a highly coded form of creative expression.” http://www.ni9e.com/graffiti_analysis/ga_about.html, accessed August 2, 2005

¹⁰ Carter, Scott et al, “Digital Graffiti: Public Annotation of Multimedia Content,” www.fxpal.com/publications/XPAL-PR-03-263.pdf, accessed May 13, 2005. See also William G. Griswold et al, “Using Mobile Technology to Create Opportunistic Interactions on a University Campus,”

www-cse.ucsd.edu/~wgg/Abstracts/ubi-spont02.pdf, access May 13, 2005

¹¹ *Yellow Arrow* - www.yellowarrow.net, *Grafedia* - <http://www.grafedia.net/index.php>



Fig. 1: Yellow Arrow sticker, Centre Place, Melbourne (Photo: Lachlan MacDowall)

Digital graffiti systems such as *Graffiti* or *Yellow Arrow* draw on the concept of a graffiti tag as an intuitive and individual marker of place and emphasize the role of communities of users in adding content though many of the examples, like much street graffiti, are highly personalised or idiosyncratic responses to place, more an archive of private memorials than a new form of public discourse.

In contrast, Jeff Rice has argued in a recent article titled “Detroit Tagging,” that the spray-painted graffiti of Detroit signify a familiar modernity of urban decay, appearing on “the remnants of the industrial age: trains, factory walls, abandoned buildings, highway bypasses, and street signs.”¹² Grippled by another round of urban renewal, with campaigns like “Digital Detroit” which placed new media at the centre, Rice argues for the potential of the graffiti tags to act as a model for re-imagining the urban:

¹² Rice, Jeff, “Detroit Tagging” in *CTheory: Theory, Technology and Culture*, Vol 28, Nos 1-2, article 156, <http://www.ctheory.net>

Whereas the industrial city was marked by graffiti tags, the information city is marked by the less familiar, XML driven tag...the meta-level mark-up used to categorise information in both referential and non-referential ways. Popularised on websites like the image sharing site Flickr, the social bookmarking system Del.icio.us, and the link hub Metafilter, tags allow writers to designate their own names and attributes to information (as opposed to relying on previous categorical systems in circulation).¹³

For Rice, the meta-tag generates assemblages, rewriting the spaces of the city and generating digital networks. However, in contrast to the democratic, self-organising potential of these participatory digital tagging systems, more official, centralised version of the system have been instituted, such as the *E-graffiti* application trialled at Cornell University, in which users are offered a list of text notes based on their location on the campus wireless networks. Based on “location-aware tour guide systems which use the GPS coordinates, infrared transceivers or object detection to determine the user’s location,”¹⁴ *E-graffiti* checks the wireless network access points to work out which building users are in. Rice argues that, in contrast to centralised systems such as *E-graffiti*, new formulations of Detroit emerge out of collective discursive constructions that are in opposition to the government rebranding of the city in public relations exercises such as “Digital Detroit.”

In Rice’s nexus of new media and graffiti, graffiti is relegated to a disappearing industrial age from where it is unable to usefully remap the spaces of the city, signifying only in familiar ways. However, in new media works such as an animation piece by Latvian artist Kriss Salmanis, graffiti functions as an innovative method for mapping the city.¹⁵ Salmanis’ 2003 piece *Un ar reizi nāks tas brīdis (And that time will come)* compiles stills of stencilled robotic figure spray painted across a city into an animated sequence, in which the figure marches towards the viewer.

And that time will come points to the problems with Rice’s model, in which new media supersedes and inhabits the supposedly outdated graffiti forms. Rice cites Jean-François Lyotard’s contention that a new form of narrative do consist simply of “additional information” but instead “comes from arranging data in a new ay...This new arrangement is usually achieved by connecting together series of data that were previously held to be independent.”¹⁶ By linking the disparate sites in a new structure, *And that time will come* rewrites and reforms city spaces (presumably in the Latvian city of Riga) into a new assemblage through a combination of new media and graffiti forms.

Urban space

¹³ Rice, Jeff, “Detroit Tagging”

¹⁴ Doran, Bruce J. and Brian G. Lees, “Using GIS to Investigate Spatio-Temporal Links Between Disorder, Crime and the Fear of Crime”

¹⁵ <http://www.vkn.lv/index.php?parent=525>, accessed August 1, 2005. The title of the piece is a line from the epic hero poem by Andrejs Pumpurs. My thanks to Ally Warren and Elina Poikane for the translation.

¹⁶ Lyotard, Jean-François, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Minneapolis: University of Minnesota Press, 1997), pp. 51-52 cited in Rice, Jeff, *Detroit Tagging*

Graffiti is a distinctively urban phenomenon, and in the case of the New York, one that is seen as arising as a response to the bleak spaces of the ‘concrete jungle.’ While local councils and government implement graffiti cleaning programs, new media artists have used large-scale projectors to extend the reach of graffiti in new, but non-permanent ways. The results of “Fi5e’s” *Graffiti Analysis* project – digital images showing the process of tags being drawn – were projected on the sides of buildings around New York.¹⁷ In a similar project titled *Playground ZEDZbeton 3.0* an outdoor projection by Maurer United Architects projects graffiti images of local graffiti artist ZEDZ, images chosen because his monolithic letters “emanat[e] architectural power,” producing urban space “as a variable, treacherous terrain.”¹⁸ Both *Graffiti Analysis* and *Playground ZEDZbeton* make use of graffiti in ways that are sensitive to its ability to interpret urban space, rather than recycling graffiti imagery as a signifier of the decay or industrial modernity.

At the same time, graffiti appears in the more formal virtual mapping of city spaces used by urban planners and developers. In Melbourne, companies use data from the Geographic Information System, combined with digital elevation data and stereoscopic aerial photographs to produce highly detailed simulations. Globally, these simulations are still in the development phase, though they are in use in London and in LA, where “designers even have a database of graffiti from which to choose.” Here, graffiti functions as a form of decoration guaranteeing the authenticity of the simulations, a set of signifiers easily incorporated into the commercial re-imaginings of city spaces.

Security

Finally, emerging technologies have been designed to enhance existing security on train networks and specifically address the spray-painting of trains in train yards. In the UK, Central Trains have introduced motion-sensitive cameras called “Flash Cams” that take high resolution photographs of intruders and issue audible warnings.¹⁹ These automated security systems are designed to operate on largely privatised public transport networks with low staffing levels and in environments already awash with CCTV surveillance. New media artists have responded to increased security and surveillance by designing machines to undertake the task of graffiti. Of particular note are the *Hector* project, in which a modified spray can is directed by a computer or the Institute for Applied Autonomy’s *GraffitiWriter*: “a tele-operated field programmable robot which employs a custom-built array of spray cans to write linear text messages on the ground at a rate of 15 kilometres per hour.”²⁰ These automated graffiti machines counter the use of emerging technology for security and surveillance in what the Institute for Applied Autonomy call “dynamic adversarial urban environments.”²¹

¹⁷ *Graffiti Analysis* – <http://www.ni9e.com>

¹⁸ Van Weelden, Dirk, *Playground ZEDZbeton 3.0: Maurer United Architects*,” Mediamatic website, <http://www.mediamatic.net>, accessed May 12, 2005

¹⁹ “Cameras to prevent rail graffiti,” BBC News UK edition, Monday 26 January, 2004, http://news.bbc.co.uk/1/hi/england/west_midlands/3429243.htm, accessed May 12, 2005

²⁰ Hector Project, <http://www.hektor.ch/>, accessed August 8, 2005, Institute for Applied Autonomy website, <http://www.appliedautonomy.com/gw.html>, accessed July 25, 2005

²¹ Institute for Applied Autonomy website, <http://www.appliedautonomy.com/gw.html>, accessed July 25, 2005

Conclusion

The immediate similarities between the combination of graffiti and emerging technology in creative new media practice and their use in anti-graffiti initiatives suggest that, far from taking place in an autonomous sphere, new media practice is by necessity engaged with the material conditions of state and corporate power. For instance, in some cases it appears that the same impulses to mimic, document, archive or codify graffiti by new media artists may also be driving anti-graffiti uses of technology. In other cases, new media projects mix graffiti and emerging technology in ways that are oppositional to dominant constructions of citizens and city spaces.

New media's appropriation also makes evident the distinct traditions of graffiti, some of which have proven more interesting or useful for new media, partly because they accord with the logic of an individualised, mobile, late-capitalist consumer. Graffiti's appearance in new media makes evident graffiti's own status as a form of popular media. Though it offers a compelling and highly commercial visual style, in much new media work, graffiti is concept, not just content.

In any case, an awareness of how the conditions of late capitalism drive and shape cultural production and the slippages between marginal artistic practice and governmental and corporate applications remains essential for the future of new media practice and its interventions in the world of truly flexible technologies, whose democratic potential is neither self-evident, guaranteed or fully realised.

Websites

Art Crimes – <http://www.graffiti.org>

Escapism – <http://www.graffiti.org/escapism>

Escape from Woomera – <http://www.escapefromwoomera.org>

Grafedia - <http://www.grafedia.net/index.php>

Yellow Arrow – <http://www.yellowarrow.net>

Graffiti Analysis – <http://www.ni9e.com>

Graffiti Taxonomy - <http://www.ni9e.com>

Graffiti Archaeology - <http://www.otherthings.com/grafarc/>

The Graffiti Solution -

http://www.parklane.com.au/scripts/citynet/aw_get.oci?code=7585

Kriss Salmanis - <http://www.vkn.lv/index.php?parent=525>

ⁱ www.escapefromwoomera.org, accessed Thursday July 7, 2005. "Why *Escape From Woomera*? The videogame is the most rapidly evolving, exciting, subversive and feared cultural medium in the world today. It's akin to graffiti on the cultural landscape. As such it is ripe for an injection of interesting and progressive ideas that can effect social change. We are a team of game developers, digital artists and media professionals, committed to the videogame medium - not merely as a vehicle for conceptual new media art or profit-driven entertainment - but as a free, independent art form in its own right. The creation of *Escape From Woomera* is part of a larger goal: the rise of a counter-culture of developers and gamers who create and engage with game art outside the mainstream corporate industry."

ⁱⁱ O'Neill, Rob, "Local product is cleaning up" in *The Age*, May 24, 2005, <http://www.theage.com>, accessed May 27, 2005



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