Practising Place with Locative Mobile Technology

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Article

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by **Maggie Buxton**

Abstract

Places are gathering points for a diverse range of realities: physical, spiritual, cultural, and digital. In the twenty-first century, the boundaries between these ways of knowing and being in the world are increasingly blurred. In this environment, rather than making places, one practises place. This article describes a place practice that brings together ubiquitous technologies, indigenous and speculative ontologies, and integral research methodologies. It presents three case studies focussed around three spiritually significant sites in South Auckland, New Zealand: a cemetery, a marae and a park. Locative mobile technologies augment physical spaces with digital content and can act as mediators between the self, the physical world, digital worlds and other worlds beyond. Technology is not usually associated with spirit. However, in these case studies, technology paradoxically plays a role in supporting the spirit of these places. This work raises legal, moral, cultural, and political issues in the use of mobile technologies in indigenous and/or sensitive contexts. It also presents opportunities for how mobile technologies can shift perceptions of self and place, make institutional knowledge more accessible, and build connections in the spaces where cultures, histories, peoples and realities meet. In these ways, when embedded within a principled practice, these technologies can support the spirit of place.

Introduction

Sensors, signals and computing are now as intrinsic to landscapes as cars, concrete, flora and fauna. Places have become the gathering points for a multiplicity of physical, spiritual, cultural and digital realities. In this environment, rather than 'making' places, one practises place.

This paper discusses place practises situated in and around a South Auckland town. It outlines three case studies of community practice in which I have used locative (also known as geolocation, geolocative or georeality) mobile technologies. These technologies *locate* or *attach* digital media in or to specific spaces and places to be retrieved via smart mobile devices. I discuss the issues and opportunities generated in this process. My work is situated within a principled practice devoted to supporting the spirit, the wairua, of place as it is understood by a wide range of cultures.

I have been practising place for almost all of my forty-something years. As an only and lonely child, I grew up playing with the spirits of my place. Later in my life, I travelled to a number of sacred sites around the world, and lived near spiritual places such as Findhorn in Scotland. I have spent the last twenty-five years working internationally as a systemic consultant, creative practitioner, educator and strategist with organisations and communities (including indigenous peoples in developing nations). Much of this work has been cross-cultural, cross-disciplinary and intrinsically place-focussed. In recent years, I moved permanently back to my home community of Papakura, New Zealand. This paper demonstrates some of my most recent

work, which creatively weaves together art, spirituality, technology, science and culture. It emerges from my recently submitted PhD thesis, which explores these ideas, tools, and practices in more detail.

Smartphones in Smart Cities

The development of the World Wide Web catalysed changes through the links it created between 'various networks, autonomous programs, and genres of expression' (Davis, 1998, p. 387). Smart mobile devices brought the internet into the streets, creating media-rich, networked landscapes.

The worldwide uptake of smartphones is exponential. Statistics NZ has reported that more than half of New Zealanders are now accessing the Internet via a mobile phone, and the total number of Internet connections via smartphones increased by a third to more than 2.5 million in 2012 (Hill, 2012). In 2013, it has been reported that over 60% of New Zealanders have smartphones, and 19% have tablets (TNS, 2013).

Smart mobile devices have been described as 'partly technological, partly psychological and partly cultural' with multiple modes of usage (Huhtamo, 2004, p. 36). Users can take pictures, make movies, create music, play games, shop, network, monitor their health, organise their lives and keep track of others' movements via apps – software applications which are downloaded onto the devices. These devices are simultaneously telephones, radios, televisions, navigation systems, cameras, remote controls, game consoles, spirit levels, wallets, departure cards, medical monitors and portals to an invisible world of visual and auditory material floating around us.

After 2008, developments in mobile technology and GPS made it possible to locate digital media at particular sites using a combination of GPS signals and/or the unique address of person's phone. This meant that people could use their smartphones to see and hear stories and information at particular points of interest. Around this time, the terms *locative mobile*, and *LBS* (location-based services) were coined (de Souza e Silva and Firth, 2010, p. 486).

Today, locative mobile is part of a computing revolution that is reshaping, reforming and disrupting the way that lives are led, communities are built, and places are understood. Squire (2009) views individuals as now being 'neither entirely here nor there but in multiple, occasionally hybrid, places of their own choosing' (p. 78). He describes how online and offline activity is reshaping how place is experienced, creating a multiplicity of place. He argues that there is an inability to unplug or get away as we now have the ability to be in multiple places at once.

Graham, Zook, and Boulton (2012) have emphasised the 'the potent ways in which virtual information – in particular, geographically referenced content – intersects and helps shape the relationships that undergird our lived geographies' (p. 465). They argue that a variety of technologies (including code embedded in everyday objects) are creating profoundly new ways of engaging with place. It is argued that 'invisible' technologies (such as Wi-Fi and GPS) are shifting people's relationship with spaces and places (Rieser, 2004). Society is moving from a view of space as static and dead, to one where it is fluid, dynamic and inherently interactive (Haque, 2004, p. 245), and where technology has disappeared into the background as media become infused with the environment (Deuze, 2012).

My own work is now a rich interplay between people, signals, things, information, ideas, code, memories and interactions. I foresee locative mobile technology having an increasingly visible impact on places and communities (and the people who support them) for, as Davis (1998) argues, 'when a culture's technical structure of communication mutates quickly and significantly, both social and individual 'reality' is in for a bit of a ride' (p. 310).

Practice and Place

The concept of practice has become increasingly popular among scholars from a number of disciplines. This includes (but is not limited to) organisational development and management (Nicolini, 2012); sociology (MacIntyre, 1981; Schatzki, 2001); media and computing philosophy (Brewer and Dourish, 2008; Thrift and French, 2002); visual arts (Frayling, 1993; Sullivan, 2010); education (Fitzmaurice, 2010; Hagar, 2011); and theorists discussing mobility (Cresswell, 2002). Although many of these views of practice have different applications, what is common to them is that practice is seen to be made up of many different elements which are enacted via the body (Nicolini, 2012; Schatzki, 2001).

Nicolini, Gherardi and Yanow (2003) argue that within this type of approach, 'knowing' precedes knowledge. They see 'knowing' as 'situated in the system of ongoing practices of action, as relational, mediated by artifacts, and always rooted in a context of interaction' (p.3). Following this, Nicolini (2012) describes practice-based approaches as fundamentally processual, relational, and embodied.

Many technologists refer to the notion of practice in their work. Thrift and French, for example, predicted in 2002 that the internet of things will be made up of appliances which are 'practice-aware', 'responding to and aware of the context in which they are used through an array of wireless and other sensors, and continuous locational information read from Global Positioning System (GPS) references' (p. 315). This is now a day to day reality. Relatedly, Graham (2004) describes a world where traditional and emerging practices as well as media have become interdependent and interconnected within a maelstrom of societal change (p. 19). In addition, Brewer and Dourish (2008) put forward the idea that new forms of practice are emerging through the mediation of technology. They notice an emerging 'reconfiguration of the conceptual relationships between place, space, technology, and practice' (p. 970).

There are criticisms of media-infused environments. There have been arguments that technology is akin to an addiction consuming the world (Glendinning, 1995), and places are in decline. Meyrowitz (1985), for example, cautioned that the relationships between social situations and physical settings, between public and private social activities and between adulthood and childhood are all undermined by 'electronic media' - leading to a relatively 'placeless' world. More recent critics like Carr (2008, 2010) have argued that the Internet (and search engines like Google) is changing the way humans think, much for the worse. Likewise, Bauerlein (2009) sees the internet age as having a stupefying effect on youth - undermining the future of humanity.

For me, declaring any kind of technology as inherently good, bad, or even neutral is problematic without fully understanding the context in which it is used. As Graham (1998) notes, adopting 'deterministic technological models' that engage with the `impact' of technologies implies 'simple, linear, technological cause and societal effect' (p. 181). This is not necessarily useful or relevant in a world made up of interactive, fundamentally intertwined networks. Instead, I agree with Spretnak (1997), who argues that 'technology is neither a force unto itself, dragging us along in its wake, nor merely an aggregate of neutral, value free tools. The purpose and design of every technology reflects our culture' (p. 124).

I see place as a centre for practice, and those who work in and around it as place practitioners. This perspective encompasses a relational and processual notion of place that is fundamentally embodied insofar as it involves all of one's senses, experiences, and knowledge, and is enacted in the place where one stands using mobile devices. From this perspective, place is the centre of seamless political, social, digital, spiritual, technological, personal, local and global activity. This view of place has resonance with many indigenous realities, which 'have produced knowledges, epistemologies, ontologies, and cosmologies that construct ways of being and seeing in relationship to their physical surroundings' (Kincheloe and Steinberg, 2008, p. 136), where 'all aspects of the universe are interrelated' and where knowledge is 'holistic, relational, and even spiritual' (p. 151).

My perspective can also be contextualised within place-related discourses that are critical of mainstream academic ontologies. Rose (2002) and Somerville (2007, 2010) for example, promote holistic, embodied ways of being and knowing place. Rose (2002) describes an 'ecological self', which is 'materially embedded in specific places, as well as being co-substantive with the universe. The emplaced ecological self is permeable: place penetrates the body, and the body slips into place' (p. 312). Somerville (2007, 2010) puts forward the notion of 'becoming-other' as a processual, fundamentally embodied, relational concept 'born of the space in-between' (2007, p. 234). She argues that this way of being in place is a condition for generating new knowledges through a research engagement that is at once messy, open-ended, liminal, and irrational (2007, p. 235). For her, learning in places happens through 'embodied connections in particular local places' (Somerville, 2010).

My perspective (influenced as it is by these emerging discourses) embraces place as a site for practice, and describes those who work in and around places as place practitioners. One *practises* place or simply *lives* place. Place practitioners are seen to be any individuals whose work content and work location, and often personal identity and spirituality, are inextricably entwined. They include but are not limited to

local historians, kaitiaki [stewards/guardians], local environmental activists, educationalists, healers, site-specific artists, community workers and marae employees. Within this notion of place practice, one can either operate within a particular discipline or cultural framework, or, in my case, work across frameworks. I describe my work as a transdisciplinary form of place practice that brings together emerging technologies, ontologies, and methodologies.

Community Case Studies

My practice has generated a number of case studies, three of which involve spiritually significant sites in Papakura, New Zealand: a historical cemetery, a marae, and a sacred site disguised as a public park. My work at each of these places has been to create a mobile-based user experience, which supports the spirit of those places, and the work of those associated with those sites.

The majority of the work on the cemetery and park sites took place over a six-month period in early 2013, and these case studies are now in abeyance. The marae case study was also created and intensively researched in this same time period, but has evolved and continued into a larger scale, longer-term project.

All the experiences 'geolocate' stories and information at significant points around each site using sophisticated locative mobile software. The user then accesses this information (via an application on their phones) in the form of text, audio, still or moving image, links to websites, animated content etc. The information can only be accessed at the point at which it has been placed, by an individual using a mobile device. Stories are therefore physically contextualised in a way that is not otherwise possible.

For these case studies, and more recent work, I have been using a locative, augmenting reality software application created by Imersia Group (www.imersia.com). I chose the verb *augmenting* to describe these tools, following the lead of Manovich (2006), Aurigi (2008), and Graham et al. (2012), all of whom argue that mobile tools which insert and interweave media in the environment are adding to the environment in some way. Traditionally, augmented reality has referred to a graphical overlay onto a real environment, but this is as a limited understanding of how the digital can enrich and affect the physical environment in a number of ways, including through geolocated sound.

Imersia's software creates *smartpoints*, which are artificially intelligent points in space that hold many different kinds of media (text, sound, moving image files, 3-D objects and animations et cetera.). I inserted digital material into the 'smart point' via a web portal to then be accessed by users via their mobile device (after accessing a website or downloading an app) at a location. In order to access the information effectively the mobile device needs to be internet enabled, have an accurate GPS and a quality internal gyroscope, accelerometer and compass. Most recent smart mobile devices comply with these requirements.

At the cemetery I worked in partnership with Dr Michelle Smith, a local historian associated with the Papakura Museum. Dr Smith had already compiled a brochure and group tour for the site, so my role was to translate her research into an individual mobile-based experience. I recorded her sharing stories of inhabitants of the cemetery, and the historical events in which their lives were contextualised. We then geo-located these stories to the relevant person's grave. Users then accessed this material as an audio commentary and a textual summary via their phones. There were also able to follow web links to related historical material, and see images contributed from museum archives and donated by families.

At Papakura Marae, I worked with marae CEO Mr Tony Kake, kaumātua [Māori elders] and marae founders to gather stories in text, photographic and video formats. Some of this information had not been recorded previously. Users were able to enjoy stories about the *taonga* [prized things] of the marae (carvings, woven panels et cetera.), and to hear stories of how the marae was founded and built; they could also learn about current services on offer to families in the marae community and learn of future development plans for the site (via an animated video provided by architects).

The Te Kōiwi Park case study was quite different in nature. At that site I engaged in a much deeper form of place practice by working over the entire six month period to know that location in many different ways. I worked alongside scientists (microbiologists, informatics specialists and soil chemists), energy healers, psychics, oral historians, descendants of settlers, and Māori inhabitants of the site before it became a park. I went to multiple archival and research institutes in order to research and gather images of

letters, newspaper articles, council memos and land documents. In addition, every few days I went to the site to take sound samples and photographic images (including using a drone to take aerial footage with my mobile phone). Occasionally, I visited to meditate and converse with the spirits of that site. In this process I uncovered the rich, contested, sometimes painful history of the site.

Once gathered, this material was mixed and edited 'live' on-site, using a special editing programme. The software creatively layered together images, text, and sounds creating surreal short videos that were creative montages of the material gathered over the six months. The videos were shown as part of an exhibition that took place during Matariki [a special celebration in the Māori calendar]. The exhibition occurred within a local public gallery (showing the videos via a monitor hung on the wall), and simultaneously at the park using the audience's mobile phones. During the exhibition, an artist talk brought together key collaborators with the general public to share stories and anecdotes about that site and the process of creating the work.

Methodology and Practice

In my view, engaging with place as a practice necessarily involves working with a bricolage of methods and an emergent process of trial and error and muddling through. With this in mind, I used a wide variety of methods to create *content* for the experiences (i.e. information, images, sounds and stories about the places), as well as to gather data on the *process* of working on the sites and feedback from those participating in the demonstrations. The research therefore involved generating content about the place itself (with still and moving images, aerial filming via drones, scientific sampling [microscopy and soil coring], sound recordings, archival research, and oral history recordings) while simultaneously reflecting on this process (individually within a personal blog; with others using survey interviews and semi-structured interviews; and, in the case of the park, a gallery feedback book and interactive artist talk). It involved generating content, but also reflecting on how this content was experienced when reconstituted via the portal of a mobile phone.

I worked with different types of participants on each site. First, there were collaborators who worked with me to create the experiences. This group ranged from partners in managing each case study project (at a strategic level), through to those who provided content for the demonstration 'experiences' (in the form of stories and artefacts) or spiritual, cultural and technological expertise. There was also a second category of eighteen participants who were invited through a purposeful selection process to simply *experience* the demonstrations. These experiences were captured via questionnaire-based interviews immediately afterwards. These individuals had a connection with the case sites and all were designated by me to be a place practitioner of some sort (for example, marae workers, community police officers, local historians, mana whenua et cetera.).

Place practice is, for me, a form of spiritual practice, which is why I opened myself to receiving 'guidance' for my work through different channels such as signs, intuitions, dreams, and spoken words. I also engaged in practises such as meditation and conscious visualisation. Throughout my engagement, I consulted with spiritual practitioners both Māori and Pākehā. This approach is in keeping with the *integral* research framework I developed for my work based on the writings of Braud (2011), Esbjörn-Hargens (2009) and Hedlund (2010). These authors all promote inclusive, multi-methodological structures that validate a number of different epistemological and ontological paradigms (and data collection methods) within a research process, including those of a transpersonal nature.

I am mindful that some of my research involves Māori knowledge, and taonga including stories and *tapu* [set aside-restricted-sacred] sites. It is therefore important to me that my work is always guided by *kaumātua* [elders], and by *mana whenua* [Māori with demonstrated authority over a specific region]. I regularly consult with them to gain spiritual guidance and blessings, and ensure my work is culturally safe. In addition to using inclusive research frameworks, I also work closely with the principles of the Treaty of Waitangi by, for example, ensuring that there is reciprocity and mutual understanding in partnership with stakeholders; that there is protection, for the taonga of the stories and gifts participants (and the places) shared with me; and that there is a high degree of participation.

Implications and Issues

Locative mobile technologies augment physical spaces with digital content, and can act as mediators between the self, the physical world, digital worlds and other worlds beyond. Technology is not usually associated with spirit. However, in these cases studies, technology paradoxically has played a role in supporting the spirit of these places.

Eighteen participants experienced the mobile demonstrations over the three sites – split evenly in numbers between Māori and Pākehā. Given the emphasis on process rather than just outcome, there were nearly as many collaborators creating the experiences as there were participants experiencing them.

I gathered data from all participants and key collaborators, asking about their general experience, their potential use of the technology in the future, and whether their view of a location had changed as a result of engaging with these technologies. In the latter case, it was interesting that while many of the participants were familiar with the location, over half of these individuals still experienced some (albeit small) shift in their perception of that site after engaging in the mobile experience. In the case of the marae for example one participant described the mobile experience as uplifting 'the place like new paint work for the area, or planting new plants in the garden.' Another marae participant said it 'made the marae feel important.'

At the cemetery, one participant felt that the experience made 'the place come alive even to someone who hasn't a personal connection', and another thought that it 'brought to life the history, events and people and the connections they have to place in new and interesting ways'. And at the park, one participant commented that the experience allowed for: 'peeling back of layers in the site in a way that would not be possible otherwise. Normally, I wouldn't have looked twice at a reserve like this but the mobile application allowed you to take a different perspective'.

In addition to these questions, I enquired as to whether people felt the experience on each site supported the spirit of place (or wairua) as they understood it. A high percentage of participants on each case study site recorded a positive response. At the marae case study site, for example, of the eight participants experiencing the demonstration, six recorded a score of '5' on a scale of '1 to 5' ('5' being 'strongly supported the wairua of the place').

Participant feedback differed as to why the mobile experience supported the spirit of place. Some saw the capturing of stories and placing them in context as the critical element, while others loved that previously hidden or difficult to reach material was now available (for example, archival information or oral stories). A participant at the marae noted, for example, the way the technology provided 'a bridge to the IP of the marae' and another noted how the experience 'fosters a connection between Māori and other groups. The more people get to know about it through technology the more people can connect to it through carvings for example. It is the connecting of people.'

Participants across all three sites, though, experienced the locations 'coming alive' with stories, bringing a greater degree of meaning, relevance and reverence to those sites. One participant described how the experience gave 'meaning to what you are seeing and reading in the cemetery', while another speculated that 'greater interest [in the cemetery] will lead to more security, less vandalism etc.', thus supporting the spirit of that place on a practical level. In addition, a number of participants said that it was the extensive consultation with mana whenua and kaumātua and/or the sensitivity with which the material had been handled that supported the spirit of those places. One marae participant, for example, said that if the work had been carried out without consultation then it would not be 'validated'.

The work raised a number of different issues. In the marae case study, for example, questions were raised about cultural safety. On that site many participants identified the need to shift and adapt protocols to the new technology, but there were no outright objections to the technology itself (e.g. software and devices) being used on site. In response to concerns, karakia [prayer] and mihi [introduction/placing/welcome] were placed on the app, and layers of passwords and access codes were designed into the work to ensure people could not happen upon information that was not appropriate or spiritually safe for them to encounter. There was also a great deal of attention paid to data security, and protection of intellectual property, to ensure data was not accessed and used inappropriately.

Technical issues were recorded in the research. Locative mobile is still relatively new and mobile devices do not always have the internal capability to carry out the demands of the software effectively. This meant that in the case studies, there were some glitches and issues locating points quickly and accurately (particularly at the cemetery where the graves all look the same and the user is highly reliant on the device to lead them to the right spot). For tech-savvy participants, this detracted from the experience (and lowered the score for their overall enjoyment). However, even those participants still gave a high score in the area of 'supporting the spirit of the place' for the reasons noted previously. In general, in my experience it is critical that these technologies work seamlessly in order for the user to connect fully with a location and so onsite user testing needs to be rigorous when using these tools.

Interestingly, in terms of economic issues, significant economic disparity with phone ownership (or types of phones) between Māori and Pākehā participants was not evident during the study (in fact, the marae case study participants had the most up-to-date phones and were more technologically savvy than on the other case sites). However, other work I have undertaken more recently suggests access to phone credit, not phones, is the critical issue for those in low socio-economic groups.

Reflections

Today, technology is fully integrated into the ecosystem of any place – including those deemed sacred. Code, signals, sensors, and electricity exist on, above, or under most sites. The word 'profane' means 'not relating to that which is sacred or religious; secular' (Oxford Online Dictionary, 2013) i.e. that which is in everyday use. And a wāhi tapu [sacred site] within Māoridom is a location that has been set-aside for divine purpose, 'removing it from ordinary secular association and use' (Marsden, 2003, p. 40). In a world where technologies have infiltrated every part of our everyday existence, holding the boundaries between what is sacred and profane is a challenging, and perhaps futile, business.

If technology is part of, rather than apart from, nature, it cannot be completely prohibited and/or avoided. In this context, my research showed that it was the intent behind its use, and the practice within which it was situated, which was critical to supporting or subverting the spirit of place. In the case studies described I enacted the work within a place practice that was value driven, inclusively framed, and deliberately aligned with principles from the Treaty of Waitangi.

Apart from some issues with the functionality of the technology, in general, the place practitioners I worked with viewed these technologies positively. In many cases, these technologies were seen as an inevitable part of progress. However, the view of Mr Kake - the CEO of the marae - was that knowledge, access and control over the process of implementation was critical so that the wairua and mana of their site was supported rather than denigrated.

Can these tools actually support the multidimensional and spiritual elements of places where we live? When used with positive intent, this research demonstrates that the answer is 'yes'. When not used in politically, culturally, socially and spiritually appropriate ways, I believe the opposite can occur and damage can be done. This damage is not to a 'pure' notion of a sacred place tarnished by profane technology. Rather, it is damage through an intervention in the ecosystem enacted by individuals or groups who are operating with a lack of mindful attention and respect to the places where they are choosing to intervene.

Next Steps

I have a number of locative, augmenting reality, and site-specific media projects currently underway in and around Papakura and South Auckland. The intention of the work, generated under the banner AwhiWorld (www.awhiworld.com/activities), is to celebrate diversity, open minds to possibilities and support the spirit of places and spaces.

One project, Place_Stories (Matariki) uses an audio-based locative mobile app to 'place' sound works around the Papakura town centre in spaces and places that need love and attention. Another project, 'Augmenting the Elders' enables residents in a South Auckland rest home to use augmented reality technology creatively to generate 3-D animated creatures, which are then placed around the home and encountered via their own, family, and staff mobile phones. These and other projects are specifically designed to support the wairua of those places.

Concurrent with these and other AwhiWorld activities, the marae case study remains active. Plans are underway to build a larger scale digital capacity building, youth engagement programme around my research. Later in 2015, this will involve digital and media skills workshops and the launch of an updated app, and physical and digital (e-book) publications.

Final thoughts

Places today are dynamic gathering points for a range of realities. In this environment one practises rather than studies place. When working on sites that are set aside, or special in some way, it is important to be mindful of the many opportunities, and also the many political, cultural and spiritual issues involved. As media becomes embedded in landscapes and signals and code are integrated more fully into day to day life, new community development skills need to emerge.

Places are sites for spiritual, social, cultural and artistic activities. They are now also sites for a multiplicity of digital realities as code, data and media are embedded in whenua. In this environment, technologies like mobile phones have the power to become portals to the divine aliveness that is planet Earth.

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