

**Coded spatialities of fieldwork. An Observation for *Area***

## Coded spatialities of fieldwork

### Introduction

*Area* has a long-standing tradition of publishing observations and articles on the dynamics of doing fieldwork (e.g. Cupples 2002; Bennett 2004; Bracken and Mawdsley 2004; Desmond 2004; Watson 2004). This Observation discusses some dynamics of using technologies in the field.<sup>1</sup> I draw on recent theorizations of ‘code’ (Dodge and Kitchin 2004, 2005) to call attention to the ‘coded spatialities’ of fieldwork. I discuss some implications of code for the researcher’s positionality and how coded spatialities can affect research outcomes. I mostly draw upon my ten-month fieldwork experience in rural South Africa; however, the issues I raise are less to do with doing fieldwork in South Africa as they are about doing fieldwork in the contemporary period.

### Coded life (in the field)

Code consists of instructions and rules for computer hardware. It is ‘increasingly central to the spatial formation of collective life’ (Dodge and Kitchin 2005 p.162; see also Dodge and Kitchin 2004). Code is embedded in everyday life, in turn producing coded *objects*, *infrastructures*, *processes* and *assemblages*, each of which are involved in fieldwork research. *Coded objects* are ‘non-networked objects that use code to function’ (2005, 163), such as digital voice recorders, cameras, or stopwatches; or non-networked objects such as credit cards that ‘permanently store digital data that cannot be accessed without software’. Fieldwork also involves (indeed, may even entirely rely upon) *coded infrastructures*, ‘networks that link coded objects and infrastructure that is monitored and

regulated, either fully or in part, by code' (2005, 163). Coded infrastructures include the Internet, utility networks, or the automobile. Access to the Internet, in particular, is increasingly critical for today's fieldworker insofar as credit card payments have to be made via the Internet, or because providers of financial support require regular updates. Numerous bureaucratic tasks also follow the researcher into the field: students want information about grades; completing administrative tasks entails logging onto university web sites. Clearly, Internet access in the field is not just a luxury used to keep up to date with news from home; for many researchers, access is required. *Coded processes* 'refer to the transaction and flow of digital data across coded infrastructure' (2005, 164), such as occurs when a bank customer withdraws money from an ATM. Fieldwork relies on the operation of coded processes to release research monies, use a credit card to pay for a rent car, or withdraw cash from an ATM to pay rent or research assistants. It is hard to imagine fieldwork occurring without code working away in the background. Fieldwork, then, is akin to what Dodge and Kitchin define as a *coded assemblage*, that is, a situation in which, from the perspective of the researcher, multiple coded infrastructures must converge and work together with coded processes to make fieldwork possible. Depending on the particular suite of technologies employed, code, to a varying extent, 'conditions' (2005, 164) fieldwork.

Coded *spatialities* of fieldwork come to light by thinking about the ways in which code *transduces* space. Viewing space as *transduced*, rather than *produced*, calls attention to the ways in which code modulates space: a satellite connection to Singapore, say, transduces an office in London and makes possible distanced communication (2005,

173). If the satellite signal fails, however, the space of the office changes in meaning and potential. Code consequently plays a role in transducing space by beckoning ‘new spatial formations and spatiality into existence’ (2005, 172) in three ways. The first is *code / space*, which refers to situations in which transduction cannot occur without code. Social life in *code / space depends* upon code. An example is air travel: airplanes simply cannot travel without lines of code working in the background; failed code in an air traffic control system, for example, means that planes will be grounded. Fieldwork, too, can unfold in *code / space*: an atmospheric scientist recording the wind speed and direction of a tropical weather system likely depends entirely on his/her computer tapping into a network of automated weather stations; transcribing interview notes need not involve a computer, but sending them by email to be read by a colleague thousand of miles away means that fieldwork spatialities come into being in *code / space*. A second form is *coded space* which exists when code plays only a mediating role: a digital camera snapping pictures of a graduation ceremony, say, or a conference presentation which uses PowerPoint. In these cases, the graduation ceremony or conference can proceed without code operating as intended. In coded spaces, then, ‘if the code fails the space continues to function as intended, but not necessarily as efficiently, safely, or with as little cost’ (Dodge and Kitchin 2004, 198). Code *matters* but is not dominant in coded spaces. In fieldwork, for instance, a digital voice recorder might stop working during an interview, but hand written notes can be taken, albeit at the risk of losing some information. Finally, there is *background coded space* in which ‘code has the potential to mediate a solution if purposefully activated’ (2005, 173). A mobile phone signal is in the background but

unused until activated. A GPS receiver provides locational information to a researcher in the field, but its use is by no means necessary at all times.

### **Coded fieldwork**

Research, whether ‘in the field’ or not, entails negotiating the effects of operating within these different types of spaces. The fact of code’s centrality to social life points to the existence of people living out coded spatialities. My interest here is with understanding some of the coded spatialities of fieldwork. Dobson (2001) has noted some of the practical issues thrown up by doing fieldwork in a digital age. Laptop computers, GPS receivers, the Internet and mobile phones affect fieldwork experiences. Geographers use a wide array of equipment, some of which may entail navigational skills, while others are used more specifically for collecting information. Fieldwork is a coded experience. Besides the fact that code is present, however, what might be some implications of doing coded fieldwork? How do coded spatialities affect the politics of fieldwork experiences; might code play some role in shaping research outcomes?

An important consideration here is the issue of ‘positionality’. The literature on fieldwork is clear on the point that researchers are not objective, God-like figures devoid of a social position. Researchers are not separate from their subjects. Rather, researchers are embodied and sexual beings (Cupples, 2002) involved in the collection of partial, situated knowledge(s) (Haraway, 1988). As such, because researchers are embedded in the topics they explore, because their position affects what is achieved and left unknown, the

question of positionality should be reflexively considered throughout the research process (Rose, 1997; Sundberg, 2005).

The coded spatialities of fieldwork impact on the researcher's positionality and affect research outcomes. Consider my fieldwork experience in rural South Africa. The fieldwork involved an assemblage of coded *objects* (voice recorders, cameras), *infrastructures* (the Internet, automobiles), and *processes* (financial databases and systems to access research funding, move funds, book and pay for travel). The experience involved operating in *code / space* (e.g. uploading an application for additional research funds over the Internet, or accessing my financial records online to ensure credit card bills were paid on time) and *coded spaces* (e.g. transcribing interviews on my laptop, taking digital photos). In sum, the fieldwork consisted of multiple coded practices (dodge and Kitchin 2005, 171) in which some sort of code – directing one coded object, infrastructure or process or another – had to operate as intended for the research to continue. A crucial aspect of the experience, though, and the importance of which I hardly anticipated, was the extent to which the *mobile phone* mediated my relationships with certain key respondents. The coded object most at issue in what follows, therefore, is the mobile phone.

Mobile phones provide 'potentially constant accessibility' (Licoppe 2004, 137) thereby making possible a degree of connectedness unimaginable hitherto. Their increasingly ubiquitous use reflects the extraordinary extent to which 'the world seems to be on the move' (Sheller and Urry 2004, 207; see also Urry 2004). Phones can of course be quite

useful in the field. One striking advantage: a quick call can enable researchers to contact respondents (only if the respondent has a phone, of course) to confirm an appointment whilst on the move (albeit, so long as s/he is within range of a phone mast). In theory, at least, less time will be wasted; fewer trips to meet respondents will result in aimless hanging around; respondents, too, will less often have to wait for the researcher to fail to turn up. However, although mobile phones have these advantages, they also add a layer of complexity to the research process; they are by no means a straightforward 'blessing' (Horst 2006). I now discuss how the politics and outcomes of research can be affected by this particular coded object.

For the final three months of my research, by far the most important respondent was Edward.<sup>ii</sup> He occupied a leading position among a group of people claiming back their ancestral land in northern Limpopo. Their land claim was made under the South African government's restitution of land rights programme. The issue of restitution in northern Limpopo, as elsewhere in South Africa, was contentious. Accusations and counter-accusations were made by white farmers whose land the government had to acquire to complete restitution, those claiming back their land, NGO project officers, and government officials. My research entailed interviews with many of these actors from all over the area. Keeping in touch meant making frequent phone calls and sending text messages.

Edward was one of many 'gatekeepers' I came across. He was able to provide me with access to a particularly important group of claimants. My plan was to conduct interviews

with members of the group. Edward was keen to help, but his enthusiasm was tempered with suspicion, which is not surprising given that a stranger from a university in the U.S. wanted to know so much of his personal business. Our relationship, then, was uneasy. It seemed, not unfairly perhaps, that Edward wanted to channel my research in certain directions. I wanted more freedom to conduct interviews, to ask questions, to construct my own version of the situation in which Edward was a key player.

Critically, and although we frequently met face-to-face, our relationship was mediated by mobile phone in numerous ways. I would have preferred to communicate with him via text message, but Edward, who was not working at the time, rarely had sufficient money to buy credit for his phone. He therefore used a 'please call me' service for which he did not have to pay and which sent me a text message asking to call him. The 'please call me' was frequently useful but sometimes a nuisance: I was obliged to call if he sent me a text message – regardless of whether I had sufficient credit (I recall frequent visits to shops to 'top-up' just to give Edward a call) – and, though many of these calls were 'research related', he often called to ask me to do something for him, for example buy him some food or pick him up in my car from a neighbouring village. The phone often helped Edward receive material returns for helping me in the research.

But the phone also empowered Edward. He became proficient in using the phone as a surveillance device. At a critical juncture in the research, for example, I tried to meet another leading member of the group without Edward's knowledge. It was a clandestine operation. Displaying Edward's surveillance powers, I received a 'please call me' as I

was about to leave ('please call me' became more akin to 'where are you?' or 'what are you doing?'). I called Edward; he asked where I was going and then insisted on coming along. In this sort of way, the mobile phone helped Edward to exert his superior position relative to the issues I wanted to research. He understood my position: I relied upon him. Although he would have influenced what came out of the research anyway, Edward's surveillance powers would have been inferior without the phone. Thus, whilst I was occasionally able to get around his surveillance and managed to document much more than I suspect he would have liked, I was unable to complete certain key interviews without Edward's presence. The end product of the research, therefore, was a set of conclusions about the interests and intentions of Edward's group; conclusions, that is, that were made with less confidence than might otherwise have been the case. The phone helped in Edward's attempts at keeping me away from key respondents.

## **Conclusion**

Perhaps naively (and perhaps Edward knew this), I hoped the 'please call me' text messages meant there was dramatic news, something *important*, something that would move the research in new directions. Rarely was that the case. In fact, the mobile phone kept me *tethered* to Edward and shaped what came of the research. The point of raising all of this is that coded assemblages which come into being during fieldwork in the contemporary era force researchers to manage novel, unexpected, and complex interactions; interactions which make emotions, power relations and the actual spatiality of doing research quite 'untidy' (Ettlinger 2004). Dealing with the coded spatialities of fieldwork is not simply a matter of working with coded objects, infrastructures or

processes; it can also add an unanticipated layer of complexity which can alter research conclusions. Recognizing these complexities is an important step in preparing for, conducting, and reflecting upon the fieldwork experience. It matters that fieldwork – not to mention the whole research process which is technology-laden and therefore increasingly code-dependent – is coded.

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## ENDNOTES

□ Although I discuss 'fieldwork' throughout this paper, I recognize that it is a contested concept: fieldwork implies that distinct, bounded research arenas exist, which is far from the case (Katz 1994). My use of the term here is not intended to imply that fieldwork is necessarily distinct from other research practices, or that there are, say, 'field-specific' properties at work that deserve particular attention.

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□ Not his real name.