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SECTION 1

Community Mapping

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The state of the art of collaborative community mapping in the UK is reviewed. Employing five contrasting case studies, a contextual approach is proposed as the most useful way of assessing the changing significance of these local alternative cartographies. Parish mapping, green maps, artistic maps, open source mapping and cycle mapping are best understood as political, social, aesthetic and technological practices reflecting differing institutional configurations.

Keywords: community mapping, contextual approaches, institutional frameworks

Throughout most of the history of cartography, maps have been used to administer nations or cities, support colonial projects, reinforce property rights and underpin military operations (Pickles, 2004). Individuals in modern societies have, until recently, only rarely mapped; they have used maps created by cartographers. Yet all human beings *can* map: people have natural mapping abilities (Blaut *et al.*, 2003). And, in response to technological and social change in the last twenty-five years, cartography has increasingly been democratised (Rood *et al.*, 2001), with an emergence of critical approaches to mapping (Crampton and Krygier, 2006). People in theory now have the tools to create their own maps and express their own mapping skills. Community mapping plays a significant role in this process. It might be defined as local mapping, produced collaboratively, by local people and often incorporating alternative local knowledge.

Early research seized upon this alternative potential to highlight radical possibilities. Aberley (1993) offered practical advice for local protesters, and King and Clifford (1985) offered an action guide to local community conservation. Such volumes explored the best ways forward for local community mappers, charting possible source material and explaining how to organise a community map. They showed the kinds of struggle that could be advanced, including

- reasserting indigenous peoples' rights
- re-mapping lost place-names
- re-publishing the past for contemporary consumption
- protecting local wildlife in the face of development
- conserving landscapes threatened by agribusiness
- advancing local claims to land
- putting forward arguments over resources such as forests, minerals, or fishing
- protesting against planners
- opposing military power
- rejecting surveillance
- showing the powers-that-be what might be locally distinctive.

Democratised mapping offers new possibilities for articulating social, economic, political or aesthetic claims. Formerly marginalised groups can gain a voice. And this practical, emancipatory advice has taken on new significance in the era of digital mapping and the world wide web. Data are increasingly available, accessible and flexible. Software tools allow people to make their own maps. The web encourages collaborative participation and cost-effective dissemination. It can be used as an effective medium to organise opposition. And the social context has shifted with the new orthodoxy of sustainable development encouraging local involvement. In theory, all of these factors ought to lead to an upsurge in the amount of community mapping.

In practice though, community mapping is much less frequent or emancipatory than might be expected. In the developed world, it has been largely subsumed into the burgeoning literature around participatory GIS (see Omsrud and Craglia, 2003). Participatory GIS in theory delivers a more democratic spatial governance (see Kingston, 2007, this issue), but the majority of this work emphasises the incorporation of local voices into maps produced and controlled by specialists, and articulating *their* agendas, rather than subverting mapping, or changing what is mapped. And truly participatory GIS is particularly thin in the British context. Wood (2005), for example, observes that very few community mapping projects in the UK have yet involved GIS. Even in the American context of publicly available federal spatial data, community mapping arguably does not threaten the interests of those with real power, and sits safely marginalised in a local world of

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struggles over identity politics. In a recent review, Parker (2006) reflects that empirical studies of community mapping have focused largely upon indigenous mapping and the role of maps in the reassertion of property rights, rather than upon relationships between community mapping and power *per se*, or the practices involved in mapping projects.

Counter-mapping has probably been most practiced in the Third World. The new orthodoxy of participatory development relies strongly upon mapping to help implement locally-led, village-based development (Chambers, 2006). But there has not yet been much critique of the process. Exceptions are King (2002) and Hodgson and Schroeder (2002), who focus on Third World practice, and Parker (2006) and Crouch and Matless (1996) whose critical ethnographies focused on western contexts.

Given the much more sanguine contemporary reactions to the potential of community mapping, what is the state of the art in the UK? Which voices are most likely to be articulated through a community mapping process? This article addresses these issues and parallels Parker's work by charting the relations between community mapping, power and place in a mature post-industrial western context, but changes the focus to provide a wider snapshot of some of diverse British community mapping contexts. Instead of Parker's (2006) detailed ethnography of a single kind of community mapping, this research focuses upon institutional frameworks and networks of practice, through which alternative and local maps are created, and argues that contexts beyond immediate participation are crucial for understanding their significance. The argument is illustrated by five contrasting case studies, which show how community mapping reflects and articulates contested and complex notions of place, mediated through politics, practices, technology, and aesthetics.

ARTISTIC ENCOUNTERS

Schulz (2001) argues that mapping is increasingly employed in modern art. In addition to the map in a fixed artistic representation, created by a single artist, mapping is being carried out as part of performance art practice and enacted by wider community groups. Maps are once again personal and subjective (Harmon, 2003). Engaging in artistic mapping activity allows people to think in new ways about their places and bring new places into being.

Two contrasting examples illustrate the significance. Psycho-geographic encounters with the city frequently involve mapping and can be traced back to the situationist 'dérive' inspired by the practice of Guy Debord in Paris in the 1950s. Debord mapped his drifts around Paris as a form of resistance to capitalism's acquisitive power. By walking and mapping personal tracks across the city, psycho-geographers argue that alternative, more playful maps can be made, which open up new views of the same spaces. The 1990s saw a significant revival in psycho-geography and urban exploration in the UK, which was frequently associated with new social movements, street theatre and protest (Pinder, 2005). Participants walk the city in new ways, following algorithmic patterns (first left, second right, third left etc), solving puzzles, reclaiming places from commerce or surveillance by staged performances, navigating new routes and constructing new maps. Sometimes permanent mapping emerges from these events and is displayed in exhibitions. It often, however, remains an ephemeral performance, of the moment, and shared by the participants alone.

Mapping practice for many community artists also often employs geospatial technologies to subvert accepted norms. Christian Nold's work on bio-mapping illustrates the potential of mixing geo-spatial technologies with biometric sensors and helps communities create their own maps. Bio Mapping consists of three different components: a galvanic skin response (GSR) sensor and data logger, similar to the equipment employed in lie-detectors; a commercial GPS unit to locate bodily responses, and mapping software to plot how the person was feeling in a particular place. There is a relationship between GSR response and emotional arousal: anger, being startled, fear and sexual feelings can all produce similar responses. Using this system it is possible to construct individual tracks and display the ridges and troughs of emotion on a map. Results can be merged into composite maps reflecting wider social responses. Annotated emotion maps can be produced. In 2006, Nold published a complex emotion map of Greenwich, which brings together the composite feelings of local people about their place (see Figure 1). His data are available in KMZ (compatible with Google Maps) and GPX formats and may be downloaded from http://www.biomapping.net/data.htm. This and other composite emotion maps may be viewed against a Google Earth backdrop, as a Flash implementation, or downloaded as a .pdf file. Videos and DVDs of the project are available and the technique is being cast as useful art, showing objective, consensual, community feelings about an area that might inform the planning process.

THE PARISH MAP PROJECT

Some of the earliest widespread community maps in the UK were initiated by the charity Common Ground. In 1985, they launched the Parish Map Project, as an ongoing initiative encouraging local people to map what their own parish valued. The remit was to support local distinctiveness. The mapping process was seen as being at once aesthetic and political, encouraging active participation in map *making*, with the process in theory bringing together local communities to 'hold their own ground' (King and Clifford, 1985).

The project offered general advice but avoided central standardisation. Instead local people were encouraged to employ whatever skills were available to create a map of their own place. A travelling exhibition of commissioned maps from artists encouraged participation. And subsequent county-level initiatives have kick-started more recent involvement, for example in Bedfordshire, Cheshire, Shropshire, Devon, Norfolk, Suffolk and West Sussex (England in Particular, 2007). But it is local people who decide what is mapped, who is involved, how mapping should be carried out, the form of the map and its medium. The Parish Map Project is predominantly

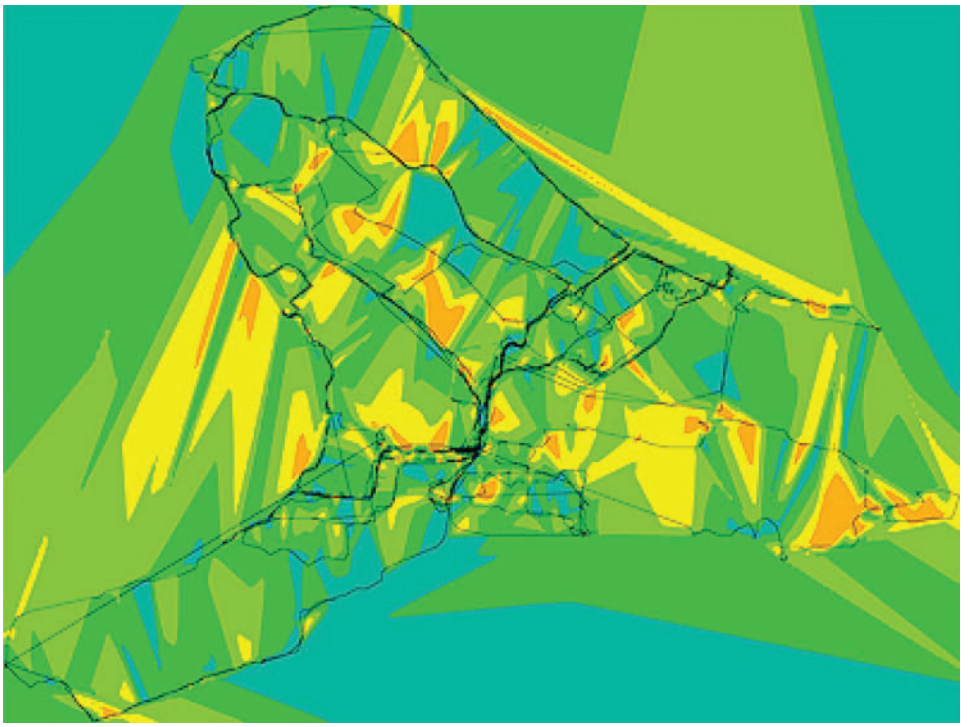

Figure 1. Greenwich emotion map (source: http://www.emotionmap.net)

English, quintessentially local, invariably defined by the largely backwards-looking spatial frame of the ecclesiastical parish and, despite the initial wishes of Common Ground, mainly rural.

Common Ground itself has no idea how many Parish maps there are, and has only managed to track down details of around 850 communities that have engaged in mapping (England in Particular, 2007). By 1996, Crouch

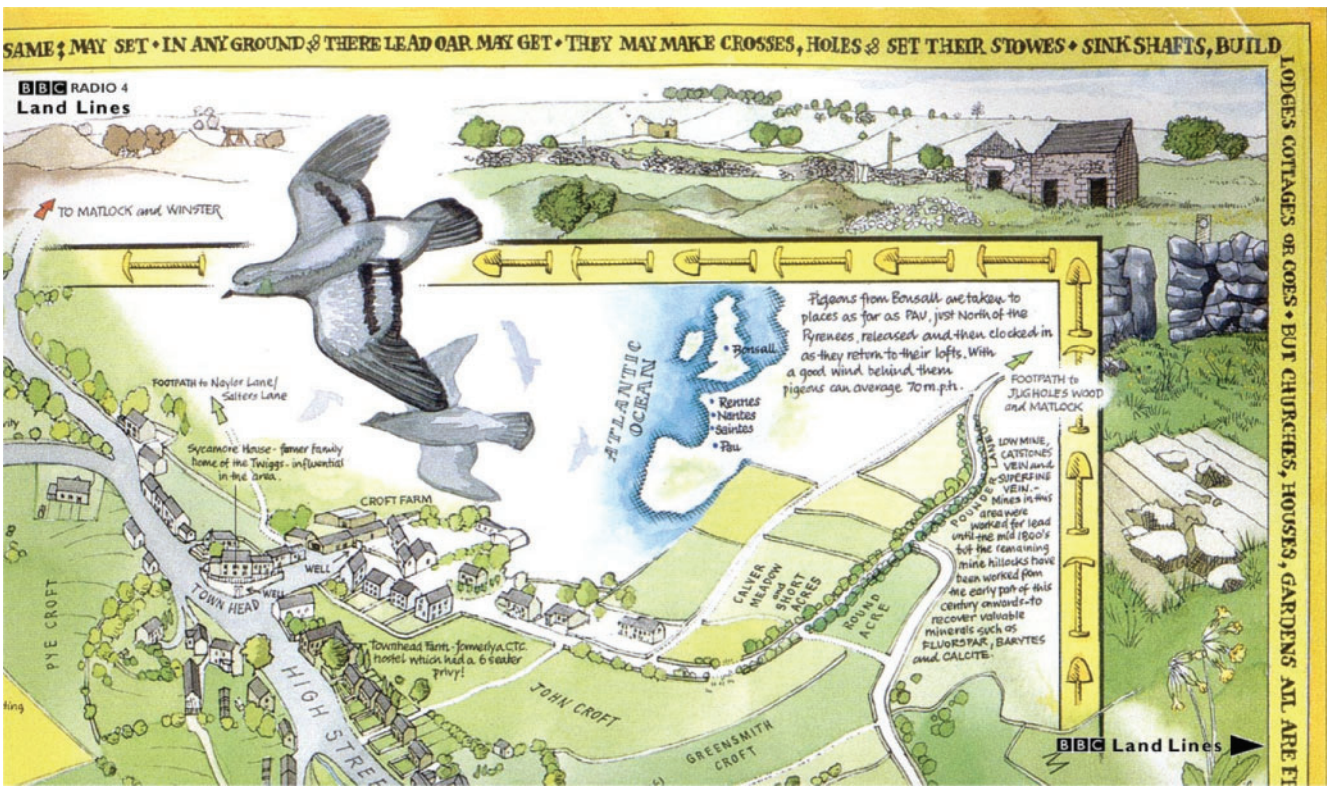

Figure 2. A typical Parish Map Design: Bonsall Parish Map excerpt. Source: http://www.england-in-particular.info/parishmaps/m-bonsall.html

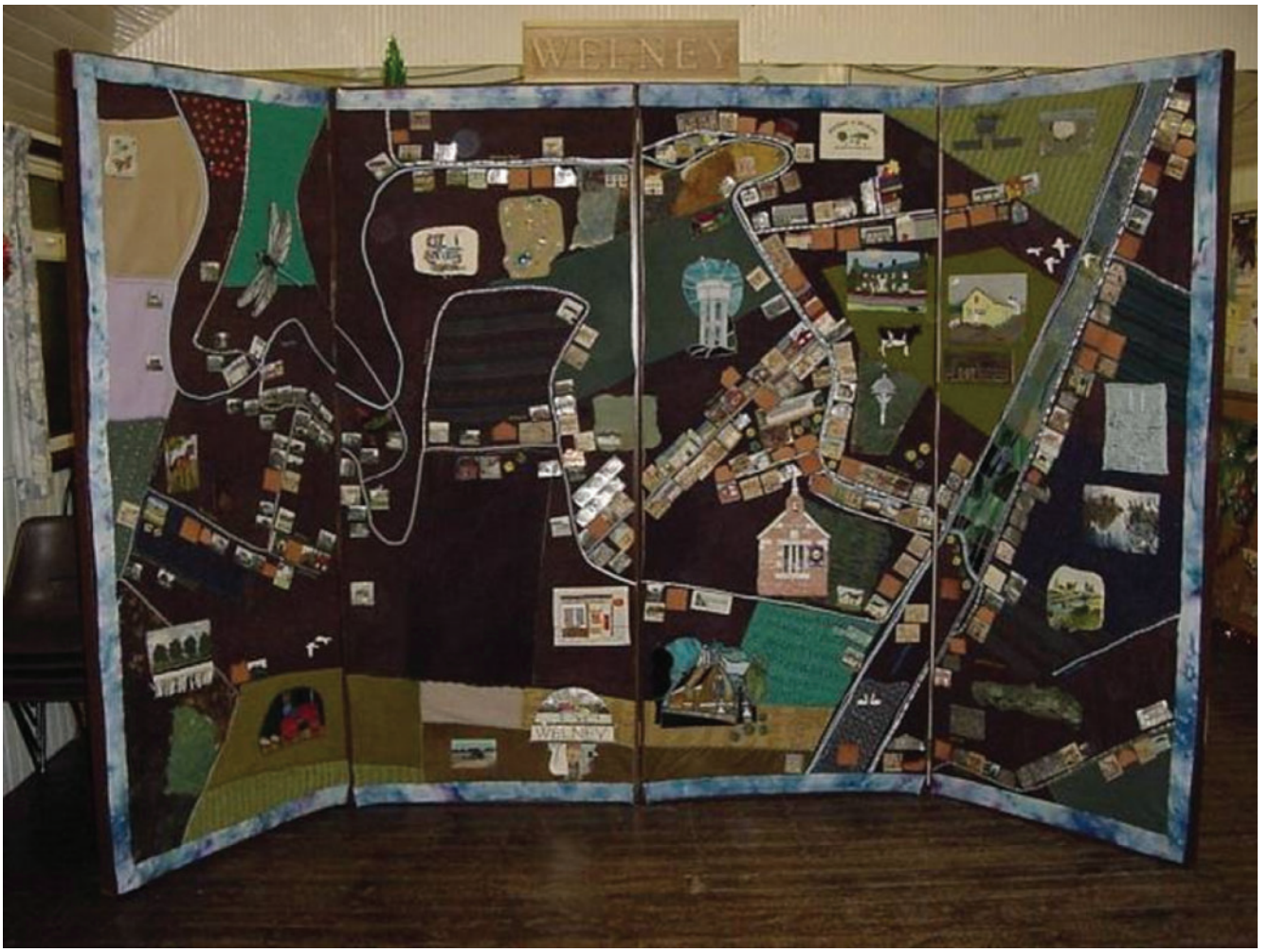

Figure 3. The Parish Map as Artistic Artefact: the Welney Millennium Parish Map. Source: http://www.welney.org.uk/Millenium%20Arts%20Project.htm

and Matless guessed at around 1500 maps. Projects continue to be initiated, the millennium witnessing a particular surge in activity. By 2007, over 2000 different communities have probably engaged in parish mapping and an impressive percentage of rural England has been mapped.

Parish mapping has been hugely diverse. Most projects have involved parish surveys, many based on old Ordnance Survey mapping, supplemented by historical research, parish walks and discussions. Common Ground encourages participants to map the parish boundary, old tracks or green lanes, rights of way, commons, field boundaries and names, ancient monuments and historic buildings, parkland, woodland and orchards, water-meadows, streams and ponds, quarries and old industrial buildings, nature reserves, recreational facilities, boundary stones and places associated with artistic, literary or historical events (King and Clifford, 1985). The typical design comprises a bounded central map, surrounded by imagery relating to the place, events, or shared narratives (see Figure 2). Mapping has typically resulted in an artistic artefact, usually painted, and often still displayed in village halls, schools or other community facilities. So the maps serve as icons *representing* the place, but are also situated *in* the place, and are part of its material culture (Crouch and Matless, 1996). Many parish mapping projects have also involved a strongly performative element: dance, stories and events are a central part of the recreation of place.

Many maps have also been published as posters or folded maps, or served from web sites. The same image is often available in different forms, a valorised original in pride of place in the village and a mass-produced representation for outside consumption and to raise funds. Maps have been sewn, woven, knitted, printed, drawn, painted, filmed, animated, performed and written (Common Ground, 1996). Projects have employed photography, photomontage, embroidery, quilting, appliqué, patchwork, needlework, batik, soft sculpture, cast metal, collage, ceramics, found natural materials, drawings, and calligraphy, but also video and multimedia technologies (Clifford and King 1996) (see Figure 3). The aesthetics of map design themselves exercise a politics: some communities celebrate a radical multi-vocal aesthetic, deliberately juxtaposing different visual styles and voices, whereas others evoke a picturesque and nostalgic style more akin to a best kept village competition.

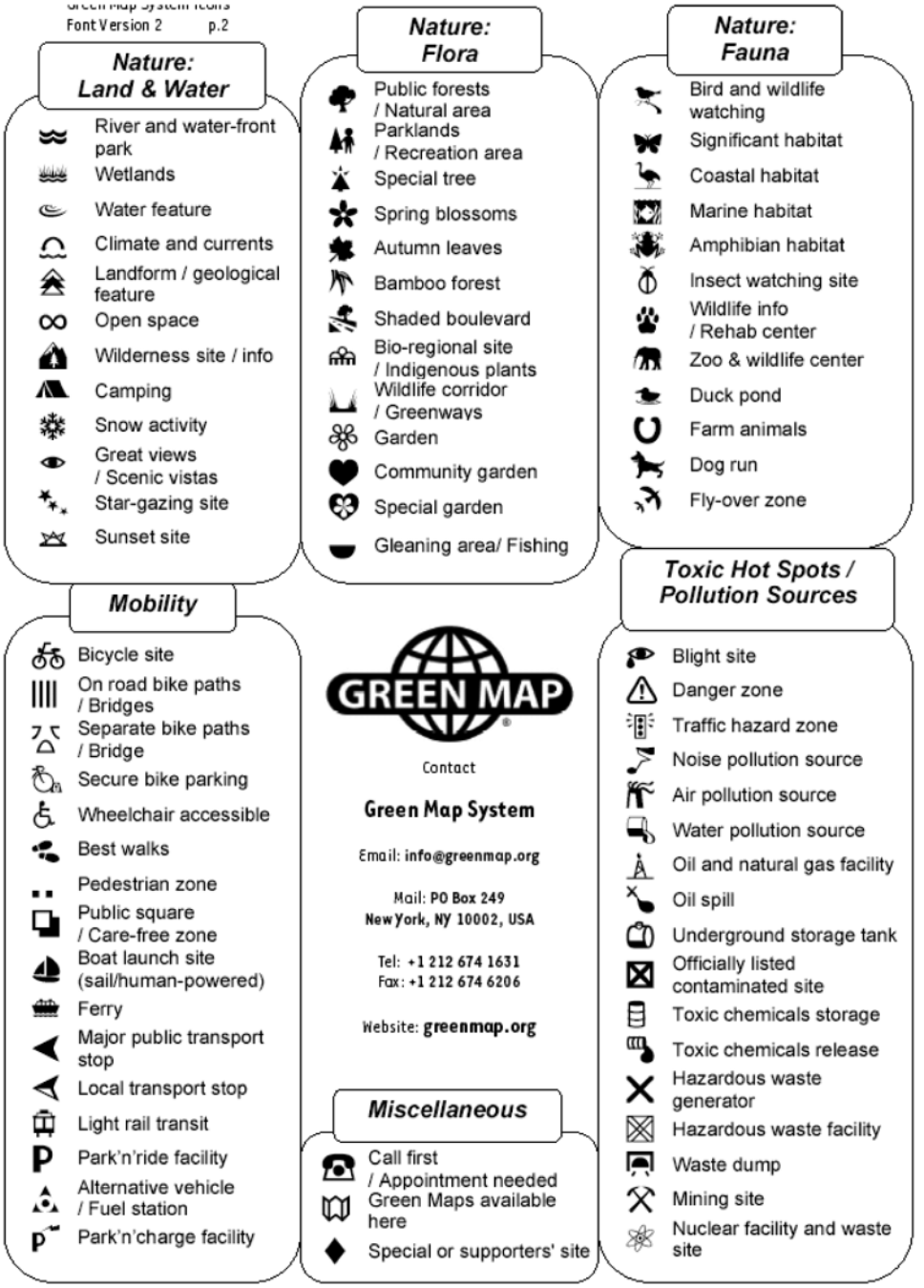

Figure 4. The global Green Map symbol set. Source: http:www.greenmap.org

Even apparently simple designs, however, rarely reflect a single person's work; an organisation has almost always engaged in mapping, typically a church group, school, parish council, evening class, or WI. The process sees many different voices raised. The remit encourages sharing, but the format tends to articulate a single voice. On the surface most parish mapping seems to be uncontested, largely aesthetic and to reflect a single unified sense of place. But final products often hide uneasy and negotiated compromises (Crouch and Matless, 1996). Nor do voices articulated in the process necessarily support the same radical planning agenda as Common Ground. They are often rather conservative: many designs are more celebrations than howls of protest. A more careful ethnography reveals tensions and a local politics strongly at play. For example the Parish Map of Mottram-in-Longdendale that this author facilitated in a Workers' Educational Association evening class in 1995 elides a vigorous debate over what should be included. The final product leaves out the Manchester overspill estate, and chooses to silence the roar of traffic heading through the Mottram traffic lights. The published map instead celebrates local history, reflecting the interests of people in the study group, excluding everything outside its remit and the parish.

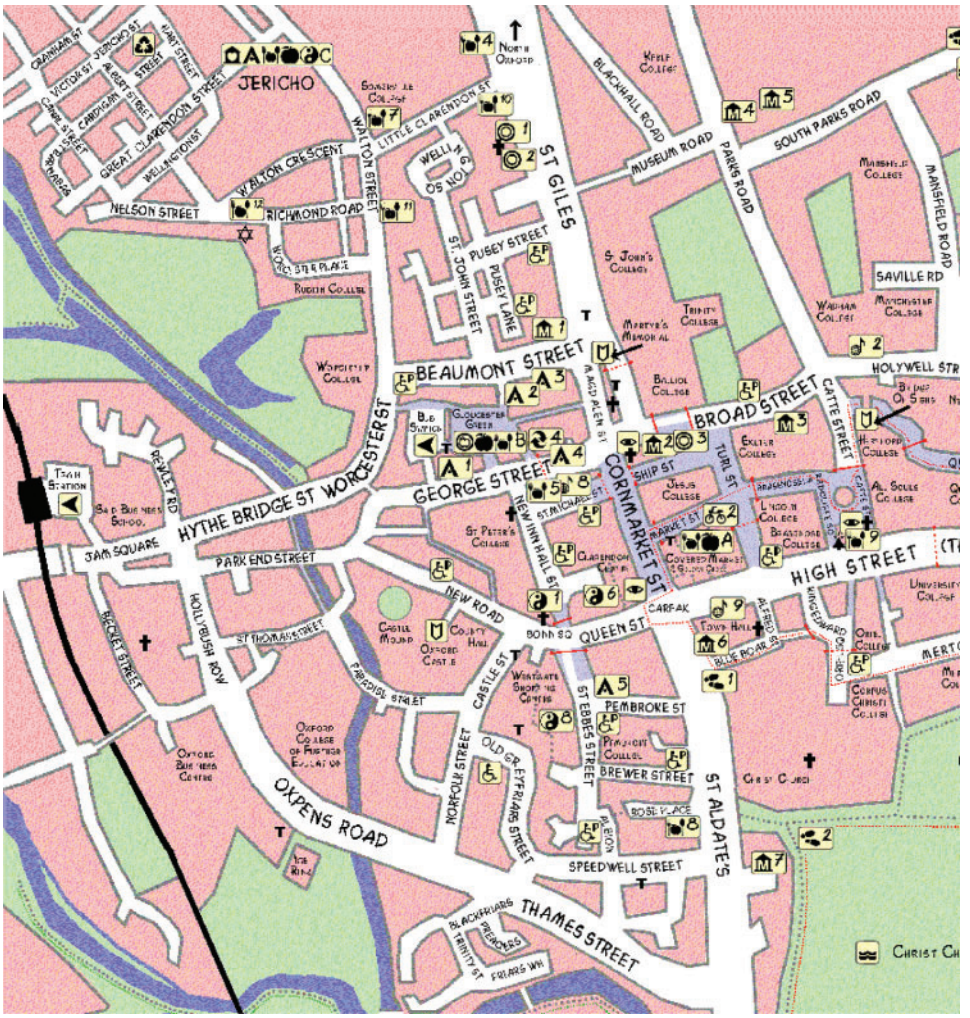

Figure 5. Oxford Green Map excerpt. Source: http://www.greenoxford.com/greenmap.html

THE GREEN MAP SYSTEM

The Green Map System is 'a global eco-cultural movement, energised by local knowledge, action and responsibility' (Green Map, 2007). The first Green Map, of New York City was published in 1992; in 1995 a global network was established to encourage use of a common symbols and practices. Since then, publication has grown apace. There are now 276 published maps and 376 projects worldwide, with 50 or 60 new communities joining each year; there are 14 of these Green Map projects in the United Kingdom and a majority of them have an urban focus. Most encompass larger areas than are covered in the Parish Map Project.

Like the Parish Map Project, Green Map is a centrally orchestrated, locally delivered and collaborative process. Partnership between different groups is seen as best practice. The Sheffield Green Food Map for example was co-ordinated by a steering group with representatives from seven different organisations, and supported by funding from health and environmental grants. An altogether larger scale of collaboration exists in some British Green Maps. For example the London Green Map serves as an online framework for other local initiatives, offering a mechanism for local communities to upload information about their own area, and also as a capital-wide front-end to local authority-based initiatives (London 21, 2004).

Maps are made locally to different specifications. In the London project, the mapping is employed as part of a London-wide Local Agenda 21 initiative promoting local green activity and communicating green issues, by engaging Londoners to build local sustainability and capacity for sustainable future action. This map shows: food growing projects, food coops, farmers' markets, community gardens, scrap banks, computer, furniture and white goods reuse projects, walking or cycling projects, residents groups with a green approach, locations of different local groups, recycling points, health food shops, green businesses, and various council services.

The Green Map system offers, however, a greater uniformity than the Common Ground project: new mappers register their interest and in return for a small annual fee receive a kit of Green Maps, a resource disk and advice about best practice. They are encouraged to use 'global icons', grouped under the eleven different headings (see Figure 4). Local mapmakers may also employ their own symbols. The London map for example devised its own local set. But the global remit encourages global participation. Co-ordination and networking takes place to

Figure 6. Raw GPS tracklogs on the OSM web site. Source: http://www.openstreetmap.org

facilitate the shared political objective of sustainable local development and this dictates more control. There is also a much greater focus on the process of mapping. The ethos of collaboration may be the same, but methods matter more to Green Map and often explicitly incorporate participatory methodologies.

This greater central control has resulted in more standardised designs, which paradoxically prevent local people finding their own aesthetic voice. Green mapping is much more functional and less diverse than parish mapping. Its media are more limited and less creative. Almost all of the British Green Maps serve as visual directories locating point-based green facilities. Some are online, (such as the Wiltshire map at http://www.big-barn.co.uk/wiltshire/ where postcode searching allows local resources to be mapped out); some are simply in hard copy; whilst some are available both in hard copy and on the web (for example the Oxford map in Figure 5). A sense of place only rarely emerges from this process. But incorporating community voices into an articulated, shared resource faces similar tensions to those that which challenge parish mappers. Aims may not be met when volunteers have to buy in to the process. Resources may be stretched and urban mapping projects are likely to face grave difficulties defining their 'communities'. It may also be difficult to reconcile the often disparate needs of different shades of green opinion. It is too early to tell whether the lofty ideals of the Green Map system will be realised in the UK.

OPENSTREETMAP

Moves towards participatory mapping in the USA have benefited strongly from the availability, at minimal cost to the consumer, of officially produced public-domain federal spatial data. In the UK, however, official data are still regarded as a commodity, subject to careful protection of intellectual property rights. It can be argued that this discriminates against local communities that lack the resource to be able to access Ordnance Survey map data (Barr, 2001). The lack of community-led and owned GIS in the UK reflects these cost-recovery policies and the status of Ordnance Survey exploiting its monopoly and market position to maximise revenue (Office of Fair Trading, 2006).

Technological advances in the last five years have led to new community mapping initiatives that aim to build collaborative, community-led alternatives to commodified map data. Many of these initiatives have exploited high-resolution satellite data and mapping from portals such as Google Maps or Google Earth (see Erle and Gibson, 2006). Some explicitly seek to focus public attention on secret sites (Dodge, 2004). These hacks and mashups,

Figure 7. OSM Isle of Wight map data employed in Nestoria. Source: http://www.openstreetmap.org

Figure 8. The Manchester Community Mapping Cycling Map. Source: http://www.sed.manchester.ac.uk/mapping

however, still depend upon the commercial provision of base map and image data.

More completely Open Source alternatives are being created to offer fully sharable data, notably OpenStreetMap (OSM), founded in July 2004 by Steve Coast and currently transforming itself into 'an international non-profit organisation dedicated to encouraging the growth, development and distribution of free geospatial data and to providing geospatial data for anybody to use and share' (www.openstreetmap.org).

OpenStreetMap explicitly seeks to create a 'free' alternative map, subject to use under Creative Commons licensing. Data are collected from diverse public domain sources. Probably the most important are GPS tracks, collected by volunteers with standard GPS receivers (see Figure 6). Local knowledge is also important for street and feature naming, but sources also comprise public domain data such as out-of-copyright OS mapping, satellite imagery and TIGER data. The ethic is strongly to oppose any non-public-domain sourcing of material that ends up in the database.

The OpenStreetMap website facilitates access to collaboratively collected map data, by employing simple viewing software, including a newly 'slippy' map. Editing tools allow GPS tracks to be converted into ways, support the feature-coding of the database and the creation of properly rendered mapping from SVG formated data. The enterprise is decentralised and strongly collaborative, a kind of 'Wiki map', shared amongst those who create it. Any user can amend any part of the map and the process of map creation explicitly relies upon sharing and participation.

So this community mapping shares a functional focus, rather than any necessary geographical propinquity. Shared identity is reinforced through mailing lists and a complex array of online tools. A real community of interest is fostered through regular social events, notably 'map parties', which aim to fill in gaps in coverage. Building upon successful models held in the Isle of Wight and Manchester in 2006, regular parties bring together novices with more experienced mappers and have become an important part of the open ethos.

OpenStreetMap is still growing at an exponential rate. At the end of 2006, there were 4400 users, and 44 million track points had been added to the database. Only three million line segments, however, have so far been tagged. The map is far from complete. But data can now be exported as SVG graphics, be output back to a GPS, and displayed on mobile devices. Real commercial users are employing OpenStreetMap data, for example the property search web site Nestoria.co.uk using OSM data for the Isle of Wight (see Figure 7). And OSM has recently negotiated support from the commercial web mapping portal Multimap, as well as reaching an agreement with Yahoo to use and extract information from their aerial imagery (with certain conditions) for significant portions of the world.

There are inevitable tensions in the project. OSM is run on a shoestring and relies strongly upon a small key group of activists who are essentially interested in developing the open source code and the functionality of the system. The majority of users simply collect street data: few edit and code. The hardest work is in adding layers of data to the GPS tracks, labelling the ways and adding value to the street data. As the data becomes richer so there may well be increasing pressure to employ it in ways that do not conform to the initial collaborative remit of the system.

CYCLING MAPS

Cycling offers a good example of a community leisure activity creating new mapping. Until recently mapping in the UK catered badly for the needs of cyclists. Official map specifications changed in the 1990s to incorporate long distance leisure cycling, and commercially published small-scale specialist route-based mapping, began to emerge sponsored by the cycling charity SUSTRANS. Today, there are more cycling maps, but most still focus on cycle touring rather than urban commuting. Perkins and Thomson (2005) argue that Ordnance Survey and most commercially published urban mapping in the UK is inappropriate for community cycling needs. Cycle City Guides from Dome Publishing and the web-served output from Pinder are larger scale representations that map the urban road network emphasising cycling facilities, hazards, and a system of cycle routes, derived from local authority classifications, but these do not incorporate the views of the cycling community.

A different model of cycling map has also emerged in the last decade in the UK. This is created by and for cyclists, incorporating road and route classifications that *they* want rather than what the local authority might want to be depicted. In Manchester for example the Community Mapping project (www.sed.manchester.ac.uk/mapping/) has created a suite of hard copy and web-served cycling maps and developed a multi-method approach to incorporate community views (Perkins and Thomson, 2005) (see Figure 8). This process is similar to the ways in which the cycle maps for London, Sheffield, Kettering and Cheltenham have been produced.

The methods employed in Manchester include analysing existing designs, collecting user reactions and community views about what should be mapped, producing test maps of different designs, content and with different degrees of interactivity. Using focus groups a specification that was widely acceptable to cyclists was agreed. Cyclists' route choices were then incorporated into a series of completed maps. Amongst the decisions taken by the cyclists were the need for multiple scales, preferences over publication formats, route classification and depiction, a preference for photographic depiction and detailed provision, and the need to incorporate larger scale access information to off-road routes.

As a collaborative initiative this process sometimes resulted in uneasy compromises. The mapping project was funded through a health promotion agency attached to the local authority. Funders wanted facilities to be audited and needed to have evidence of the success of the project in terms of getting more people to cycle. Elements within the cycling community distrusted the authority to enact change. There were also tensions between the research, and the need to create

a community-led map and ongoing process. Divisions within the cycling community themselves are also papered over in the mapped outcomes. Warning symbols may be appropriate for some cyclists, but the more activist community saw these as part of a conspiracy to discourage reclaiming the streets!

CONCLUSIONS

It is hard to quantify how many community mapping projects exist in the UK in 2007, but the amount of mapping is almost certainly greater than it ever has been. There are still substantial barriers hindering participation: mapping is still perceived as a technical exercise, demanding expertise, carried out by others who know best. But by highlighting different examples, this article has shown the vibrancy of bottom-up initiatives and how the democratisation of cartography is progressing in the UK.

Parker (2006) shows that community empowerment is complex. Cycling mapping isn't only about mobility, the parish map is much more than just rural art, Green Maps don't just advance ecological protest etc. Safely compartmentalised projects hide a considerable overlap of places, people, products and systems. Cycling activists are also often concerned with green mapping. The politics of Open Source mapping is closely associated with urban activism: map bases may be shared between different projects and cycling is the most effective mechanism for collecting urban GPS tracks. Expertise in participatory techniques is shared at the grassroots. Urban artistic projects rub shoulders with Open Source hacking and green mapping at artistic festivals (see for example www.futuresonic.org).

Much of this complexity also stems from the nature of the technology employed in different projects. At one extreme, community mapping often eschews anything more complex than the practical skills need to create a simple map. In the Parish Map Project, very few of the projects have employed GIS or the web. Nor is a dérive dependent upon new technologies, but much of the upsurge in collaborative and performative community mapping art relies upon interactive possibilities stemming from GPS, mapping software and the web. A community of interest built around shared and complex technology is the focus for OpenStreetMap and the whole notion of wiki mapping is strongly technology-dependent. Using more complex technologies such as GIS in community mapping can empower communities (Wood, 2005).

In the UK at least, community mapping is also most strongly facilitated by institutional structures that encourage involvement. It is easier for activists to follow a template, whether it is the Green Map methodology, the OpenStreetMap code and structure, or a regional promotional exercise for the Parish Map Project. Counties that have been most mapped in the Parish Map Project are those where agencies have encouraged the process. The existence of networks of like-minded people has been fundamental in the spread of community mapping: institutions encourage the social intercourse that underpins active collaboration. A cycling group, green group, WI, OpenStreetMap mapping party, or psycho-geography mailing list provides *social* possibilities which encourage mapping.

Interconnections matter. Wider social influences are fundamental for all community mappers. The Green Map movement depends upon LA21 for its moral and political direction. OpenStreetMap would probably not exist were it not for OS cost-recovery. Community cycling mapping implicitly opposes car culture. Parish mapping reflects opposition to creeping uniformity and a desire to practise creative skills, and collaborative artistic community mapping is fuelled by a creative desire for difference. All of these examples depend upon a particular *zeitgeist* and a local community mapping initiative is never simply local. Grasseni (2004) argues that the macro-level of policies and agencies coexist and intertwine with the micro-level of local mapping capacities. The Greenmap system is globally scaled and enacted locally. Community-led cycling maps in the UK enact a local response to a particular need. The Parish Mapping Project reflects English national and regional identities. OpenStreetMap facilitates local activity that feeds in to a potentially global project, which has so far largely been enacted at a national level etc.

There are inevitable tensions in this intertwining. Some exist in a community; some reflect internal–external conflict (Crouch and Matless, 1996). Many community mapping projects serve both aesthetic and functional roles: a parish quilting group may want to produce an object of beauty and be much less concerned with political protest, than the objectors who want to use the project to oppose the latest Tesco development. Local constructions of place reflect struggles that are not always easy to see in the often bland aesthetic of completed Parish mapping. But the more functional aesthetic of Green Map projects also hides argument. Completed mapping will often have to face in several directions to satisfy group dynamics: cycling maps have to show the best routes, but also persuade local authorities to improve infrastructure. An artist leading a community mapping group may have different agendas from other participants. Parent bodies may have long-term political agendas remote from the pleasures of creation or participation: Green Maps enacted on the ground may deviate from the global master plan.

The nature of empowerment is complex too. Most community mapping implicity seeks to change the world. The product is a tool helping towards this process: a Green Map for example documents organic food shops or recycling points; OpenStreetmap grows until it competes with commercial mapping etc. On the other hand mapping exercises are usually about an empowering *process* in their own right: local capacity is developed and social groups grow around a mapping event. And community mapping tends to be explicit about this, instead of pretending to be neutral (Parker, 2006). This *transparency* is also explicit in almost all of the British projects discussed above.

All of these initiatives show the importance of mapping as a set of practices, as well as an end goal (Perkins, 2006). Their longevity varies, but technological and social change implies that collaborative community mapping will become increasingly significant. People are once again mapping because they *want* to, and it is the emotional attachment that emerges as central to all of these projects. New forms of community mapping can be expected to emerge,

employing different styles, media, technologies, content and politics. The precise configuration of local interests will almost certainly be strongly influenced by a much wider context, drawn from a community that at first sight might appear to be off the map.

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