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7. Cartography at Ground Level: Spectrality and Streets in Jeremy Wood's *My Ghost* and *Meridians*

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Abstract

To explore the shifting status of the street in contemporary mapping culture, this chapter attends to two map-based walking performances by US-born artist Jeremy Wood, who uses Global Positioning Systems to transform grounded mobility into a means of cartographic inscription. Whereas Michel de Certeau describes cartography as an elevated visuality, regimenting urban practice from above, my argument stresses how Wood's mappings conflate lived mobility and synoptic cartography. Extending mapping to the street, his practice exemplifies digital mapping's expansion beyond institutional domains. To close, however, I show how Wood's art also exposes slippages and pretentions of existential security in digital mapping's worldview of securely calculated locations, which are recast as ghostly projections in a universe without essential orientation.

Keywords: walking art; map art; digital mapping; GPS; urbanism; spectrality

One of the most cited remarks in J.B. Harley's revisionist essays linking cartography with society and politics is that maps 'are preeminently a language of power, not of protest' (2002: 79). Unlike many of Harley's insights into the political significance of mapping, this insistence has found little favour in subsequent mapping theory. Scholars have tended to balance Harley's conception of maps as tools and expressions of social dominance against works of popular mapmaking (Cosgrove and Della Dora), artistic subversions (Cosgrove, 2005: 35-45; Hawkins, 2013: 40-41; Pinder, 1996, especially: 410)

and instances of critical imagination latent in even the selective tradition of progressive cartography (Wood, 2010: 126-127). Perhaps the most decisive challenge to Harley's equation of cartography with top-down power, though, emanates from recent shifts towards a distributed culture of digital mapping, which are often narrated in terms of punctual democratization. For much of modern history, rhetorics of technical prowess and scientific objectivity have conjured mapmaking as the delimited domain of state-sponsored institutions and trained professionals. However, numerous accounts suggest how, in the last four decades, more nuanced and multiple conceptions of cartographic truth have dovetailed with uneven digitization to redistribute authority in mapmaking, such that today mapping is practiced by an ex-panded variety of nonspecialist mappers in a broadened variety of contexts (see Crampton, 2010 and Della Dora, 2012).

To explore the place of the street and urban practice in relation to this apparent opening out of legitimacy in contemporary mapping, this chapter focuses on map-based performances by the US-born walking artist Jeremy Wood (b. 1976). My analysis describes how these performances make experimental use of Global Positioning Systems (GPS) to reconfigure the relations among cartography, art and street-level walking. Tracing his movements with GPS technology to create personal cartographies, Wood transforms his walking body into what he calls a 'geodetic pencil' that inscribes urban landscapes as it traverses them. In many of these mappings, Wood willfully directs his walking so as to trace images, words and street patternings before the solar eye conjured by mapping; others track the ostensibly unmodified movements that make up his daily life. Of this latter grouping, one image in particular encapsulates my concerns: *My Ghost*, a map presenting accumulated GPS tracks of Wood's daily mobility through London over fifteen years (2000-2015).

My argument explores how *My Ghost* and other works accentuate key problems and possibilities thrown up by the diffusion and diversification of mapping beyond institutional domains in recent years. Characteristically for a walking-cum-mapping artist, Wood articulates this social expansion of cartographic means and authority in an acutely spatial manner. Accordingly, my discussion foregrounds the shifting status of *the street* in his artworks. The chapter begins by contrasting Wood's artistic vision of cartography at ground level with the received relationship between mapping and streets. In the spaces and places produced by modern urbanism, I argue, the street has been figured largely as a subordinate social site to be ordered by elevated cartographers and planners. Wood's itinerant mappings, in contrast, take the street and its users as the site and agents of cartographic practice. As such,

the works empower pedestrianism: far from being caught in an imposed urban grillwork, walking becomes the reiterative making and remaking of streets through performative acts of mapping.

Yet, despite recalibrating formerly hierarchical relations between cartography and the street in this manner, Wood's mappings are not celebrated uncritically. Moving into the second half of the chapter, I focus on how institutional cartography rests on a particular ontology, which presupposes the world's basic measurability through exact, objective procedures. In expanding mapping practices to the formerly excluded cluster of people and places conjured by 'the street', does Wood's work displace this transparent, uniform, and objective casting of space? Or does it entrench this ontology through an enlarged social field? Although Wood's mappings offer no alternative articulation of mapped space, I close by invoking the metaphor of spectrality to show how *My Ghost* and *Meridians* (2005) playfully expose slippages and pretentions of existential security in the GPS worldview of calculated locations. Wood's art, I conclude, rests on a knife's edge between reclaiming mapping for its social others, repeating cartography's received ontology and undermining its illusions.

Jeremy Wood and the Project of a Personal Cartography

Born in San Francisco and raised in Berlin, Wood currently works in and around Oxfordshire in England. His art encompasses different media, from photography and digital drawing to walking performances, yet, thematically, it coheres closely around the personal geographies enacted in and through his life. Wood charts these geographies through the experimental use of satellite tracking technology. At the core of his practice, then, are Global Positioning Systems, which allow users to establish longitude, latitude and altitude quickly within a standard global framework. GPS can be simplified to three constituent elements: firstly, a constellation of (at present) 30 satellites orbiting the earth, established by the US Department of Defence and NATO in 1993; secondly, the World Geodetic System 1984 (WGS84), an internally coordinated graticular map produced by the US Defence Mapping Agency to represent the earth; and, thirdly, innumerable receivers that detect and triangulate the signals emitted by at least three satellites so as to calculate the device's position within the WGS84 (for a clear history and analysis of GPS, see Rankin, 2015).

The mobility of these receivers, which are often produced as small handheld units or embedded in smartphones, is especially important in

Wood's practice, which explores the limits and possibilities of the GPS infrastructure through the mobile methods of walking art. The impetus behind the burgeoning cultural interest in walking, suggests David Pinder, is to 'leave behind fixed or elevated viewpoints in favour of mobile, grounded, and partial perspectives' (2011: 674). In exploring subjective spatialities, the political channeling of mobility and the fortuitous simultaneities to which urban modernity gives rise, Wood's practice broaches some of the quintessential themes of walking art as it has developed from the early 20th-century avant-gardes through to the 'expanded field' of art today. He is unusual among walking artists, though, in that, instead of invoking the partiality and mobility of embodied walking to counter the omniscience perceived in cartography, his practice combines and even conflates the two impulses of walking and mapping such that they no longer represent contraries. By recording his own mobility as GPS 'trackpoint data', Wood transforms walking into a tool of cartographic drawing. The resultant information is then modelled on specially designed software named GPSography, which figures the lines made by Wood's movement into 'sculptural objects' that can be superimposed over maps or aerial photographs (Wood, 2006: 268-269). In this configuration, the artist's traversal of a landscape constitutes both part of the medium through which his maps are made and the subject matter they represent. Constantly plotting his mobility, Wood's walking body becomes a 'geodetical pencil', as Lauriault puts it (2009: 360). This formulation concentrates what I see as a central gesture of his practice: namely, the merging of grounded mobility with synoptic mapping.

Wood's works of walking/mapping fall under two broad categories. First, come pieces in which the artist directs his mobility willfully so as to write shapely new streets, images and words into existence. Consider, in this connection, *Brighton Boat* (2001-2002), in which Wood walked the GPS image of a ship through the city of Brighton. Or *Meridians* (2005), a long walk through London whose vagaries write out a sentence spoken by Ishmael in Melville's *Moby Dick* (1851) to describe Rokovoko, the island home of the harpooner Queequeg: 'It is not down in any map; true places never are' (Melville, 1992: 48). I will return to discuss *Meridians* and reflect on this anti-cartographic note later in the chapter. These works take the landscape as a jotting pad or drawing board. Unlike the pristine blankness of these stationer's equivalents, however, the English landscapes that form the basis for the majority of Wood's peripatetic jottings are strewn with impediments accumulated over millennia of history. The images are, consequently, humble and dialogic examples of draftsmanship, for in 'taking a line for a walk' (Paul Klee's phrase) across such cluttered countryside canvases, Wood's

somatic pencil must negotiate and respond creatively to the multiple physical features and human relations that surround his mobile self (Klee, 1961, I: 105). This aspect of the artworks comes across strongly in Lauriault's (2009: 360) reflections on Wood's GPS art, which, she argues, include 'land, water, air and the engineered environment of places' as 'protagonists' of the spatial stories told in the works. To show how environments and events altered the walking/drawing of *Meridians*, Lauriault recounts how Wood had to dodge golf balls and misshape words due to the unforeseen erection of circus tents on the planned route (2009: 361). While carefully treading the Greenwich Meridian line, he was also almost thrown off course by a boisterous Labrador (Wood, 2006: 275).

The compromises entailed in walking a line through the landscape, in calling attention to the reciprocity of people, environments and animals in quotidian geographies, compare favourably with the forms of modernist street planning discussed in the following section, which take existing settings as empty pages on which to inscribe synoptic street patternings. The contrast with modern urbanism is stronger still in the second category of Wood's artworks, in which Wood's mobility is ostensibly unmodified by being recorded cartographically. Mapped lines unfurl with apparently no regard to the proverbial cartographic 'eye in the sky', turning the function of GPS tracking from that of spectating deliberately staged geographical performances to documenting the spatialities and rhythms enacted in the course of Wood's everyday activity.

Such tracings make up what Wood calls his 'cartographic journals': a publicly visible bank of personal images that record the spatial unfolding of his life and trigger memories of past mobility. Some journal entries recount a single stroll (walking the dog); others narrate more elaborate walks (exploring a maze). Only one of Wood's GPS tracings, though, boasts a durational stretch of fifteen years. *My Ghost* concentrates this remarkably protracted accumulation of trackpoint data recording the artist's movements in, through, over and under central London, whether on foot or by car, bicycle, tube or plane. The title registers the uncanniness Wood felt on seeing the routes taken by his former selves objectified, visually, before him. This chapter discusses *My Ghost* in detail because its conflation of synoptic cartography with the vagaries and banality of quotidian mobility embodies the blurring of hierarchies in contemporary mapping cultures.

My Ghost presents a stark monochromatic map comprised of brilliant white lines strung out across a black space (Figure 7.1). Being digital, the work's dimensions and scale are variable, though Wood has exhibited different prints of 3.3 by 3.1 metres and, more recently, 2.1 by 1.3 metres. By my own estimate,

Fig. 7.1: Jeremy Wood, *My Ghost*, digital giclée image, 33 x 31 cm (2009).

this latter configuration makes a scale of roughly 1:9000. This is relatively large, allowing viewers to follow closely the meanderings of individual paths, while still combining many particulars into a synoptic whole. Even without resorting to the explanatory notes that accompany the map both online and in the gallery, it is recognizably London. Recognition is not instantaneous, however. By contrast with the cartographic *gestalt* that centuries of mapmaking have established for the old imperial metropole, Wood's map is decidedly off-kilter. The usually dominant curls of the river Thames figure but a feint sideshow to a long tangle of intersecting paths extending out over the image. Drawn together into two, perhaps three key nodes north of the river, the pathways shine forth in concentrated white threads.

It is important that the lines traced across *My Ghost* are not laid over an aerial photograph of the region traversed, as they are in other works, but stand isolated against an inexpressive black background. Abstraction from the terrain releases the pathways from immediate referral back to their origins

in geographical mobility, allowing viewers to engage them as pure forms or Rorschachian prompts to association. Loosened up to diverse resonances in this way, the image suggests several visual analogies: a dot-to-dot illustration of some as-yet unnamed constellation; satellite photographs of nocturnal regions in which white indicates densely lit urban nodes, tapering off into a dark surrounding rurality; the rudiments of capillaries visible in radiographic images; or Lichtenberg figures, scientific images in which electrified dust is discharged through metals, plastics or wood to create branching luminescent structures that resemble lighting (see Elkins, 1998: 273-277). In view of this uncanny phosphorescence, combined with the work's phantasmal title, the analogy of ectoplasm also comes to mind. The spirit given shape by the substance, in this case, would belong not to an individual, but a city: the febrile pneuma of London as it is fetishized in Peter Ackroyd's 'biography' of the city, for instance (for a critique, see Luckhurst, 2002).

I will pick up on the artwork's susceptibility to association and analogy, and especially this last theme of spectral geographies, later in the chapter, which considers the ways in which Wood's works complicate the GPS ontology of fixed location. The idea to take onboard here is that *My Ghost* offers an imaginative vision of how everyday mobility and cartographic drawing coalesce in the increasingly distributed culture of digital mapping. Indeed, though the map can be read simply as a visual record of Wood's personal geographies, this straightforward representational function is complicated by the fact that the artist's mobility is not just the object or subject matter of *My Ghost*, but also the medium and agency through which the map was made. Wood's GPS mappings fold closely together the formerly discrete (and I will suggest hierarchically opposed) domains of panoptic mapping and quotidian mobility – so closely, in fact, as to make walking synonymous with mapping.

To explore the implications of this conflation, the following sections set *My Ghost* in contrast with cartography's relationship to the street as it has been inherited from modern urbanism. Discussing Michel de Certeau's account of how elevated cartographers and planners have imposed urban orderings on the street brings into focus the social significance of Wood's blurring of synoptic mapping with urban walking.

Setting the Street to Order

For much of modern urban history, the relationship between cartography and the street has been determined by the imperatives of state-backed planning and the (utopian) ideal of a fully calculable and controllable city.

In streets received from preindustrial settlement, planners often saw chaotic meeting places of contrary purposes and moribund remainders of premodern indeterminacy. Viewed as impediments hindering the construction of optimally designed urban machines, the street elicited antipathy and ordering zeal. Baron von Haussmann's pseudo-medical discourse on the necessity of clearing 'clogged arteries' in the medieval city (Ellin, 1997: 18), alongside Le Corbusier's famous moratorium on the street in *The Radiant City*, stand as paradigmatic statements of this animus. To the modernizing mind, Zygmunt Bauman writes, old streets become an 'incoherent and contingent by-product of uncoordinated and desynchronized building history', obstructing the 'platonic sublimity, mathematical orderliness' and seamless functional division that urban modernity – so it was hoped – would usher in (Bauman, 2012: 42). Bustling premodern streets were to be mapped out, street practices to be disentangled and set to rational order.

Despite the modernist aggressivity towards it, there is something irreducible and intransigent about street sociality. Multiform thoroughfares might be split into discrete communicative modes; street commerce and culture removed to specially dedicated sites, but no socio-spatial planning project will entirely do away with friction and informality at the thresholds between functional domains. Streets therefore present urban planning with a special difficulty, in that they simultaneously incite and elude ordering energies. City administrations have often navigated this double-bind by remaking the street after the pristine legibility admired in maps. Cartographic rationalities of naming, numbering, tabulating, colouring and demarcating space through conventionally agreed codifications have presented a model for the ordered modern street.[1] Consequently, formerly irregular, informal and inscrutable streets – the shifting complexity of which has so often confounded cartographic attempts to establish transparency (see Scott, 1990) – have been rearranged or rebuilt entirely.

In the received practices of modern urbanism, then, cartographers and planners have taken the street as an object of not just surveillance and representation, but planned reformation too. One way to summarize this is to say that modern cartography manifests an elevated view in relation to the street. This recalls the prolegomenon to Michel de Certeau's often excerpted chapter 'Walking in the City', in which the author looks down on Manhattan's streets from the height of the World Trade Center, then ten

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1   For discussions on the power and politics of house and street numbering, see Rose-Redwood (2008); on street naming, see Palonen (1993) and Rose-Redwood, Alderman and Azaryahu (2010); and on urban semiotics, see Jaworksi and Thurlow (2010).

years old (de Certeau, 1984: 91-110). Though this analysis is well-known, I want to rehearse the key opposition driving de Certeau's account, because it is precisely this binary that Wood's mappings collapse. Distance and ocular objectification are leading motifs in de Certeau's analysis, in which cartography and elevated views more generally are positioned as foils against which to celebrate transitory practices performed in the streets. Elevation, he writes, 'transforms [the subject] into a voyeur. It transforms the bewitching world by which one was "possessed" into a text that lies before one's eyes. It allows one to read it, "to be a solar Eye, looking down like a god"' (de Certeau, 1984: 92). Here, the panoptic visuality that surveils the city is epitomized by cartography in the practical sense of establishing distance and legibility. Maps disentangle their users from the sensuous complexity of 'grounded' practices, allowing one to grasp urban geographies without being caught up in them. They reduce streets and urban spaces to transparently readable 'texts' that allow for rationalized interventions from afar.

Significantly, de Certeau's characterization misunderstands cartography, insofar as an important distinction obtains between cartography and aerial or heightened perspectives. To think that the visions built through mapping could be attained in embodied experience, however elevated, would be to conceive maps as transparent windows, not culturally relative and politically invested visions (Turchi, 2004: 85). Yet, the elevation de Certeau ascribes to cartography describes more than the practical illusion of verticality constructed by maps; cartography is also elevated in another, metaphorical sense of belonging to a dominant position in the field of social relations. In speaking of the all-seeing reader of the urban text, he has in mind 'the space planner urbanist, city planner or cartographer' (de Certeau, 1984: 93). Here, elevation denotes the ruling position enjoyed by legislators and state actors, who, as I have argued elsewhere, survey received spaces and populations to 'garden' them in accordance with a chosen model, often as executors of corporate rationality (Ferdinand, 2017: 323-328). *The map* and *the street* represent not just physical spaces and practices, then, but also metaphorical sites denoting diametrically opposed positions within a symbolic topology of social power.

Cartographers grasp space 'from above' in the sense of occupying a socially dominant position; subjects traversing streets practice space creatively 'from below' in that they act from a site of ostensible weakness. This schema is, I realize, inescapably binary, as well as vitiated by the 'denigration of vision' that suffused de Certeau's intellectual milieu (Jay, 1993). Yet, his identification of cartography with dominant social agents is borne out, to a degree, by the discursive construction of cartography through modernity, especially

in the 20th century, in which cartographic means and legitimacy were increasingly claimed as the preserve of mapping professionals and legislative institutions. Rhetorics of scientific objectivity and expert distinction, argues Harley, 'enabled cartographers to build a wall around their citadel of the "true" map', beyond which 'there was a "not cartography" land where lurked an army of inaccurate, heretical, subjective, valuative, and ideologically distorted images' (2002: 155). This image of a cartographer's 'citadel' conjugates with de Certeau's skyscraper in that both represent elevated social sites and symbols of panoptic power, raised above the supposedly partial, blind or distorted spatialities practiced by non-cartographers in the city streets below. I cite these vignettes of elevation and enclosure to stress how discourses of objectivity and professional specialism perform an unequal distribution of cartographic legitimacy among social groups engaged in mapping. Maps produced by dedicated professional institutions are set apart from, indeed above, competing articulations of geography, which, though not condemned to outright illegality, are denigrated as lay and artistic deviations from professional procedures.

In the dispensation inherited from modern urbanism, then, cartographers and planners look down on earthbound streets from heights both practical and social. *Practical* in that they enrol maps' distanced legibility to mold street spaces and subjects; *social* in that discourses of science and specialism have confined cartographic authority to delimited institutional domains while withholding it from the populace at large.

Descending into the Street

Having built an image of how, in modern urbanism, cartography and streets are locked into an asymmetrical antinomy that is played out through city spaces, I want to examine how these relations are reconfigured in Wood's itinerant mappings. The artworks' central gesture, I have suggested, is to conflate grounded mobility with synoptic mapping. It is only now, in light of the strategies through which institutional cartography has proclaimed itself apart from transient spatial practices, that the larger significance of this conflation becomes clear. My claim is that, in blending mapping with walking, Wood collapses the binaries driving de Certeau's account of urban practice and cuts against cartography's elevation in relation to the street. In *My Ghost*, walking *is* mapping, while cartographic inscription, far from signaling distanced ordering, *is* lived mobility. Mapping thus blurs into the fleeting street-level performances against which it was formerly defined.

Just as institutional cartography's elevation above the street is both a practical effect of maps' distanced legibility and the metaphorical expression of dominative social relations, so Wood's intervention has both technical and social aspects. Enrolling the mobility of geospatial devices as a drawing method, *My Ghost* brings into focus key developments in cartography's digital transition. Where print mapmaking was essentially a sedentary undertaking done in dedicated sites (though requiring prior surveys), digital mapping is increasingly peripatetic. Performed on smartphones by diverse users, mapping takes place *in* and *through* varied street spaces, with which maps interact in complex reciprocal ways (see Verhoeff, 2012). Technically, the function of inscribing Wood's movements through GPS might seem underwhelming, in contrast to increasingly sophisticated smartphone-based mapping applications. Yet, for me, the simplicity of making street-level mobility over into mapmaking distils the *social* import of shifts towards distributed digital mapping. Indeed, in merging mapping with quotidian practice, Wood accentuates what Jeremy Crampton has called the 'undisciplining of cartography': the process through which mapmaking, under prevailing technological and epistemological pressures, is 'slipping from the control of the powerful elites that have exercised dominance over it for several hundred years' (Crampton, 2010: 40-41). *My Ghost* presents a spatial imagination of this 'undisciplining', in which the once excluded and subordinate people and places evoked by 'the street' become sites and subjects through which mapping is performed.

As such, *My Ghost* transgresses the historically instituted distinctions that set institutional cartography above not only everyday articulations of space, but artistic practice too. Made by an itinerant artist with no official accreditation in cartography, *My Ghost* emblematizes artistic attempts to 'take back the map' from institutional control (Wood, 2010: 156). What distinguishes *My Ghost* both within Wood's own body of work and the larger field of map-based art, though, is how it also extends mapping to quotidian practice more generally. Unlike *Meridians*, which 'takes back the map' to articulate a carefully executed artistic rendering of space, in *My Ghost,* the artist's routes are not dictated by the need to perform words and images before a satellite gaze. The lines unfold according to the movements and rhythms of daily life. It may be naïve to imagine that Wood's mobility continued unaltered by being tracked (Lauriault notes how the image does not 'tell us when he journeyed with the GPS turned off', 2009: 365), yet *My Ghost* is not a preconceived artistic vision. It is an accumulation of the kind of commonplace spatial practices that de Certeau valorized for their subaltern creativity. For him, the transient performances through which

bodies negotiate cities, requiring neither official training nor dedicated sites, manifested an ineradicable foil to panoptic ordering. What could incarnate unofficial, nonprofessional, indeed 'ordinary' practice more fully than moving through the city? In grounding cartographic inscription in daily meanderings, *My Ghost* embodies the challenge posed to professional cartography by distributed digital mapping, which intersperses everyday lives with quotidian acts of mapping and makes potential mappers of nonspecialist users. Mapping descends into the street, empowering Wood's pedestrianism, which writes/walks out new shapes and street patternings that are registered, but no longer determined from on high, by cartography.

In stressing how Wood appropriates mapping for the quotidian and artistic fields of practice against which institutional cartography has traditionally asserted its own distinction, I have already presented this descent in terms of democratization. This would accord with more optimistic valuations of cartography's digital transition, which draw attention to how current shifts in mapping 'blur the traditional boundaries between map user and map maker, the trained professional the map amateur' (Della Dora, 2012, n.p.). Yet, if Wood's practice brings into focus the recent expansion of cartographic means and legitimacy beyond institutional domains, it also embodies more disquieting aspects of digital mapping. Indeed, Wood's GPS-driven conflation of walking with mapping might be linked to the (largely voluntary) proffering of once private geographies through mobile phone signals as commercially and governmentally exploitable data sets (see Michael and Clarke, 2013); the surveillance of convicts through networked anklets (Crampton, 2003: 130) and the potential for 'geoslavery' it suggests (see Dobson and Fisher, 2007); or to the diffusion of military tracking and targeting rationalities into commercial, governmental. and ultimately personal practices through the generalization of GPS technology (see Kaplan, 2006; for a critique, see Rankin, 2015: 556). Adducing these developments serves to dampen celebratory narrations of cartography's digital transition, balancing my image of mapping's democratizing descent into the street with the sobering realities of how digital mapping regimes are 'fuelling new rounds of capital investment, creative destruction, uneven development, and indeed, at times, the ending of life' (Pickles, 2004: 152). A fuller appraisal of Wood's itinerant mappings than is possible within the frame of this chapter would connect the artworks with the exploitation of personal geometrics, whether by policy makers, surveillance agencies, state militaries or profit-driven geobrowsers.

The critical perspective on Wood's works I want to explore here, though, focuses on the ontological underpinnings of contemporary mapping and GPS. Artistic interventions in mapping like Wood's are of little import if they

simply expand mapmaking to the widened social field represented by the street without also challenging the underlying conceptions of mapping and space promulgated by institutional cartography. Professional and scientific claims to possessing privileged access to geographical truth, and therefore superiority over lay and artistic mappings, depend on a specific casting of the world as a calculable, uniformly extended space that exists independently of the observer, can be measured and represented exactly, and does not admit multiple correct interpretations (for fuller descriptions of this ontology, see Harley, 2002: 154; Pickles, 2004: 80-86; Elden, 2005: 15-16; and Ferdinand, 2017: 328-329). While unfolding shifts in cartography present a quantitative proliferation of mapping practices, qualitative ontological assumptions about what mapped space fundamentally *is* have persisted untransformed. Mainstream GIS and GPS reproduce values and aims inherited from institutional mapmaking – values like objectivity, accuracy and uniformity; aims like establishing calculability and control. Despite the prevailing rhetorics of discontinuity, then, it may be that current shifts towards an expanded culture of digital mapping only resubmit understandings of geography more completely to the cartographic ontology of calculable extension, all behind a smokescreen of democratization.

    Against this backdrop, it seems to me that the value of artistic interventions in contemporary mapping like Wood's, beyond 'taking back the map' for nonprofessional mappers (which is, in any case, occurring, albeit unevenly, through cartography's digital transition), lies in how they might counter this ontology with qualitatively different, experimental and original visions of mapped space. I will suggest that, though Wood's mappings hold out no alternative to the coordinated and measurable determination of the world articulated in most digital cartographies, neither do they simply repeat and reinforce this ontology; indeed, they playfully undermine the GPS worldview of securely established locations. To show this, the next section takes up the metaphor of haunting in *My Ghost* to focus on how *Meridians* renders ostensibly secure GPS locations and measures as spectral, groundless projections.

Spectral Geographies

My Ghost may have been produced using GPS technology, but, in exhibition, it accumulates affective and metaphorical resonances that exceed the coordinated ontology unfolded through digital mapping. Strikingly, the artwork delineates Wood's mobility in luminescent white against a black

background, contravening the convention that maps should postulate a uniformly illuminated, indeed shadowless world. Besides making for a visually distinctive map, Wood's choice of a dominant dark backcloth releases his pathways from referral back to the traversed geography and opens them up to diverse associations. Given the work's title, the darkness invests the image with an ominous tone that colours these resonances: as I noted in my initial description, to me, *My Ghost* suggests ectoplasm incarnating the city's *genius loci*. Wood's metaphor of urban spectrality repays further discussion here, for the figure of the ghost – or rather ghostly geographies – calls into question the certainty and fixity surrounding notions of locatedness in current mapping platforms.

Concepts around haunting and spectrality have come into increasing prominence in cultural theory in recent decades. This has been associated, in large part, with Jacques Derrida's notion of 'hauntology', which counters reductions of existence to full and saturated *presence* with an ontology shot through with *spectrality* (see Derrida, 1994). Theories of spectrality do not refer to 'literal' ghostly visitations, but invoke spectrality metaphorically to draw attention to phenomena that flicker between absence and presence from particular discursive viewpoints (Peeren, 2014: 3). Three basic conditions brought to light by spectrality are: 'the persistence of the past in the present'; 'present absence' (encompassing a more spatial register); and the unrecognized ulteriority that contaminates all seemingly distilled essences (Peeren, 2014: 10).

'The key conceptual feature of GPS', writes Rankin, 'is that it replaces lumpy, historical, human space with a globally uniform mathematical system' (2015: 557). This system, the WGS84 mentioned above, constitutes the *a priori* ground of much digital mapping, including the dominant Google applications. But what if the locating structures projected by digital mapping were perceived, not as offering a reassuring grasp of geographical reality, but as spectral? Present insofar as they are communicated and acted upon, sometimes even instantiated concretely, yet, for all that, largely notable for their absence in the offline world? What if the standards of reference through which spatialities are now pervasively determined were recognized as phantasmal projections that suffuse and direct social practice without ever being fully *there*? The following analysis of Wood's *Meridians* shows how adopting such a perspective would have a profoundly disorienting and dislocating effect. Indeed, elsewhere I have argued that global cartographies establish meaning and order partly to cover over the 'frightening facticity of the disenchanted earth' (Ferdinand, 2016: 235). On this view, much of the appeal of GPS and GIS would seem to derive from how they assuage

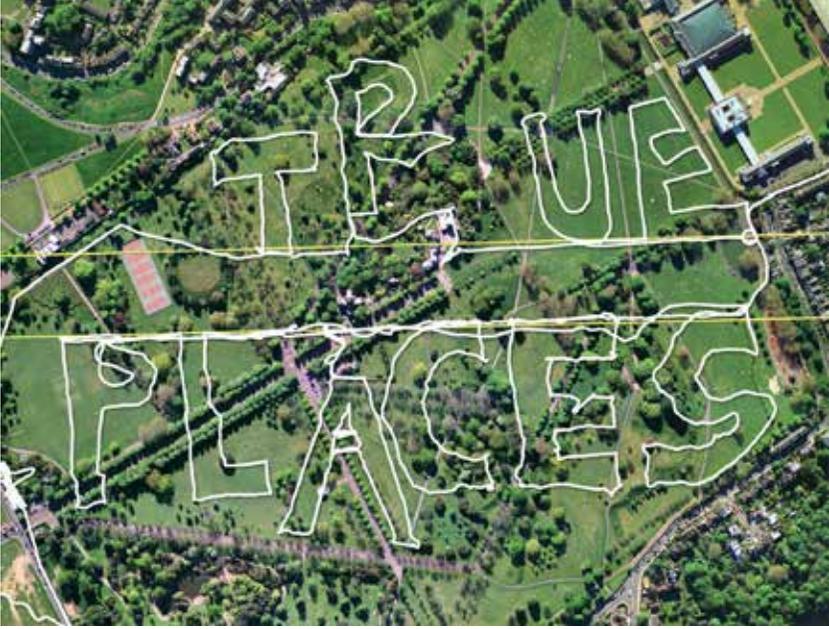Fig. 7.2: Jeremy Wood, *Meridians*, digital print on cotton, 140 x 850 cm (2005). Courtesy of the artist.

Fig. 7.3: Detail of Jeremy Wood, *Meridians*.

the existential anxieties endemic to liquid modernity. Taking a cue from Wood's glowing uncanny pathways in *My Ghost*, I shall turn a noun into a verb here to argue that *Meridians* 'ghosts' the comforting, seemingly secure locative frameworks of digital mapping – that it loosens their appearance of saturated reality and renders them spectral by playing two discrepant geographical standards off against one another.

   Meridians is a walking artwork performed discontinuously in central London over 44 miles and three months in early 2005, the GPS trails of which have been matched with an aerial photograph of the area and exhibited as a long rectangular print (Wood, 2006: 274-275).[2] Examining this image

2   An abundance of green in the photography indicates that it was not taken in the season Wood walked the same area.

entails another (lesser) journey on the part of the viewer, who must travel along its 8.5 metre breadth to follow the artist's path. As I have noted, Wood's walk traces a quotation from *Moby Dick* through the landscape. Absorbed in the visual 'noise' of the aerial photograph – arterial rail junctions, broccoli trees, shadows cast by inscrutable structures – or in picking out Melville's sentence from the disconnected sites of walking/writing, it is easy to overlook two millimetre-thin lines that run almost parallel to one another across the breadth of the image. And yet, for calculable cartographic space, these lines, the eponymous *Meridians*, have a significance that far outweighs the geographical complexities that surround and overshadow them.

Meridians are vertical 'lines of longitude' in a graticular structure representing the earth; they intersect with horizontal 'parallels' or 'lines of latitude' to form a global grid. The lines figured in Wood's artwork are especially significant; each represents a *prime* meridian, that is, the one vertical chosen as the key standard in reference to which longitude (temporal and spatial distance to the East and West) is measured within a particular terrestrial model. A prime meridian marks 0° in a system comprising 360°. The higher of the pair in the artwork is the Greenwich Meridian posited in the 'Airy ellipsoid', the graticule constructed by the astronomer George Airy and internationally recognized by dominant states as the prime meridian at an 1884 conference in Washington D.C. The institution of this meridian as prime represents a well-known instance of how political economy and imperial power impinge on the history of cartography, in that figurations of the earth were henceforth centred on the capital of the British Empire. The second, lower prime meridian in the image was established 100 years after the Washington conference for the WGS84 reference system used in GPS.

These lines are the most important vectors in two mathematical globes that differ slightly but significantly from one another. Established after satellite geodesy replaced astronomically established longitudes in the 20th century, the WGS84 belongs to a larger ellipsoid projection of the uneven terrestrial surface (see Malys et al., 2015). The result is an unnerving incongruity between points of reference that are widely assumed to coincide and are often referred to interchangeably: GPS readings taken astride the Greenwich Meridian locate the user not at the great limen between East and West, but 100 metres inside the Eastern hemisphere. This divergence is too small to make the different systems obvious, while still generating slippages, blind spots and dis- or unlocated places in an otherwise calculable geography.

Meridians builds an unsettling image of how these fundamental standards, which ground pervasive assumptions of locatedness, are, in fact, phantasmal projections masking our vulnerability amid globalization and the world's

basic contingency. To show how, my discussion will move through the hori-
zontality, doubling and visual faintness of prime meridians in the artwork,
arguing that these gestures complicate the ontology of calculability. Although
my stress on mapping's ghostliness cuts against the prevailing assumption
that notions of calculable space correspond with reality as such, I do not
mean to imply that locative frameworks are merely illusory deviations from
reality proper. To be spectral is not to be unreal or fanciful, but to hover at
constructed thresholds separating absence and presence, fact and fiction,
life and death, visibility and invisibility. Alongside the intangibility of ghosts,
it is also important to recognize that 'the ghost "makes things happen": it
transforms' (Roberts, 2012: 393). Ultimately, the spectrality of GPS construc-
tions derives from how they pervade and determine social practice while
seeming to exist as a geometrical realm beyond obdurate lived geographies.

  Meridians's first intervention in smoothly calculable space concerns
the orientation of the two lines, the identity of which may surprise viewers
who know that meridians are vertical: like gaps separating the pieces of an
orange, meridians gore the globe before meeting at its poles. And yet, Wood's
lines run not top-to-bottom, but horizontally through the image. Although
the whole artwork is oriented such that its topmost edge faces West, this
would scarcely be noticeable in a large-scale aerial photograph did it not
contradict the verticality basic to meridians. This orientation was probably
chosen pragmatically, to ease the viewing of such an elongated print, but it
has interpretive consequences. In contradicting maps' normative Northward
orientation, Wood's horizontal meridians are existentially disorienting.
North is not upward; moreover, the very notion that there is an 'upward' is
exposed as a figment of the cultural imagination.

  The contingency of longitude lines and other conventions on which
digital calculable space is built is further emphasized by the doubling of
prime meridians in Wood's artwork. Primality denotes indivisibility and
preeminence; to posit a *pair* of prime meridians within a single reference
system is oxymoronic. In having two prime meridians bisecting London's
landscape, then, *Meridians* dramatizes the plurality of mutually contradic-
tory frames of reference and their common groundlessness. Both systems
evoked in the artwork hold up their prime meridian as an absolute standard
in space-time, and yet they unwittingly indicate, by their non-convergence,
the confected and contingent character of such standards. The two lines
relativize one another.

  This doubling and relativizing of cartographic standards fissures open an
uncanny space in the otherwise uniformly coded global surface. 'The two
meridian lines', Wood writes, 'are the edges of maps that don't meet up; between

them are places that don't exist. Within this area of adjustment, the east-west hemispheres cannot be straddled' (Wood, 2006: 274). Beyond juxtaposing discrepant standards to expose their common contingency, Wood also explores the physical sites of their divergence on foot. Traversing this crepuscular zone of contradictory placements, in which things are not where they are located, he exploits the incongruence between calculative frameworks. Here, people, places and objects might subtly elude codings imposed by one locative system by identifying with the other, or even take on a renewed specificity as the two geodetic ellipsoids cancel each other out. This groundswell of geographical difference is prominent in *Meridians*, where the contradictory lines are overwhelmed visually by the photographed geographies. And, in a final turn of the screw, Wood writes/walks Ishmael's statement on cartography's essential falsity in this ontologically fraught gap between paradigms.

In view of the recent emphasis on cartography's world-shaping agency (see Corner, 1999), I find the distinction between maps and extant places expressed in the quotation from Melville dubious – not to mention its rhetoric of authenticity. That said, the point I want to make here is that, by highlighting incongruences among different cartographic standards and between maps and the walkable world, *Meridians* opens up a zone riven by a spectrality of two distinct sorts. Ghostliness attaches, firstly, to the aforementioned geographical specificities, which, though prominent in the aerial photograph, are filtered out by the quantitative calculative grids projected over them. Secondly, ghostliness attends the meridians themselves, which I take as synecdoches of calculative extension more generally. Here, locative frameworks are characterized by 'noticeable absence': existent insofar as they are incessantly communicated and practiced, yet scarcely observable in the landscape they claim to grasp so exactly (Roberts, 2012: 387).

The spectrality of cartographic standards and projections is reinforced, finally, in Wood's graphic presentation of the longitude lines. These are so easily missed on first viewing the artwork, which immediately draws the gaze into the alluring complexities of the aerial photograph. It is unsettling, then, to become suddenly aware that the landscape has been lanced through by implacably straight lines, which little belong to the city's uneven accretion below. Amid so much messy specificity, their Platonic rigidity suggests the unseen influence of a homogeneous geometry working beneath or behind this otherwise heterogeneous geography. The meridians are inconspicuous because of their minute width and colouration. Whereas Wood has chosen a slightly thicker white line to pick his pathways out from the surrounding landscape, the meridians are figured in pale green, as if for camouflage against the abundant foliage and river murk behind.

The continuing sociohistorical importance of prime meridians, to which questions of 'where are we?' and 'when are we?' are referred globally, goes unregistered in this lackluster presentation, where they command less attention than the wastelands or warehouses ranged around them. Indeed, while Wood's walking occasionally aligns itself with the meridians ('TRUE PLACES' has been traced above and below them as if guided by ruled paper), at others, he simply writes across them, disregarding their bearing. So barely perceptible are the meridians as to set their being in doubt, especially against an aerial photograph that conjures the authority of indexical realism, however dubiously. Here, prime meridians are not the taken-for-granted universals of mainstream mapping, but phantasmal projections: flickering between absence and presence, their spectral grillwork encapsulates both the modern need to realize calculability and orientation amid contingency, and the arbitrariness of confected notions of locatedness.

These three gestures of presenting traditionally vertical longitude lines horizontally, having two equally absolute prime meridians relativize one another, and reducing reference lines to faint tracings that are alien to lived geographies, all combine to 'ghost' the GPS ontology of calculable extension, rendering it spectral and strange. Thus, the artwork not only queries the extent to which our being-in-space coincides with the global positions attributed in locative media. More fundamentally, it asserts the arbitrariness of all such articulations of location, which play out as spectres over a disjointed terrestrial surface in which they scarcely inhere.

As social reality is rendered ever more calculable, Thrift argues that: 'Getting lost will increasingly become a challenging and difficult task' (2004: 188). *Meridians* troubles this statement, building an unsettling vision of how the framings and orientations articulated through locative media, though apparently certain, are ultimately groundless. Social existence may feel ubiquitously coded and channeled by locative media, yet we are adrift nonetheless – all the more completely for submitting ourselves to geospatial devices. Weaving between discrepant standards, Wood calls upon us not to rest securely in the phantom security of digital mapping. Lauriault puts it well in writing that 'we believe the instruments while really we are lost in space' (2009: 363).

Conclusions

This chapter has explored shifting relations among mapping, the street and pedestrianism in Wood's mapping performances, which I contrasted

with the binary opposition between synoptic cartography and subversive walking in de Certeau's account of modern urbanism. I have argued that, in blurring cartographic drawing with grounded mobility, Wood expands formerly elevated and esoteric mapping practices to the people and places conjured by 'the street'.

Yet I have also cautioned that opening mapping to an enlarged social/spatial field might further entrench the ontology of calculability inherited from institutional cartography. While Wood's mappings articulate no alternative to the GIS worldview of securely calculated locations, they do query and complicate it. In *Meridians*, seemingly solid and secure coordinated structures are rendered ghostly; despite prevailing rhetorics of precision and objectivity, figures of location and orientation are exposed as stray projections in a universe without essential orientation. Performing the absence and arbitrariness of locative grids in the midst of a culture that now automatically assumes their reality, Wood's mappings provoke disorientation, even vertigo.

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Simon Ferdinand is an interdisciplinary researcher whose work sits at the intersection of geography and visual culture. He studied Theatre Studies and taught in History of Art at the University of Warwick, before completing a PhD at the University of Amsterdam in 2017. The project, which he is now revising as a monograph, explores the use of cartography as the formal and thematic substance of artistic production, under the title of 'I Map Therefore I Am Modern: Maps and Global Modernity in the Visual Arts'. Refereed articles stemming from this research appear in *GeoHumanities* and *Environment and Planning D*. Currently, Simon lectures in the humanities at the University of Amsterdam, while preparing a conference and edited book titled *Other Globes: Past and Peripheral Imaginations of the Global*.