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Language of Power

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The New Nature of Maps: Essays in the History of Cartography by J.B. Harley, edited by Paul Laxton

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Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination by Denis Cosgrove

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The mirror, the map and the photograph have all at one time or another served as emblems of the yearning for a representation so faithful and so complete that it can't be distinguished from what it represents. Of the three, the map might appear to be the odd one out: the mirror and the photo may be two-dimensional illusions of a three-dimensional reality, and both are notoriously prone to distortion, but they operate by optical mechanisms that apparently guarantee a slavish fidelity to what can be seen. The map, in contrast, must select, symbolise, abstract and contract the reality it represents. There may well be artistry in the creation of mirror-images and photos, and in ways of interpreting them, but maps require making and reading in a more obvious way. One has only to be confronted by a map that employs unfamiliar conventions - for example, Leonardo da Vinci's sketch (1502-03) of a plan to regulate the River Arno, or the world portrayed according to the currently controversial Peters projection (in which southern continents appear considerably larger than they do in the familiar Mercator projection) – to realise how much maps depend on conventions for their intelligibility and utility. All conventions have their history, their rules of legibility, their implicit and explicit biases about what is significant and what negligible, just as languages do. Not all languages develop a refined vocabulary for colours: not all maps record the locations of parish churches or the manor houses of the gentry. Conventions are the precondition for parody, and maps lend themselves as happily to spoof as any literary genre – perhaps even more effectively, since the visual elements of caricature can be enlisted along with words. Saul Steinberg's map of the world according to New Yorkers (in which Manhattan looms large, and everything west of the Hudson fades into unsignposted insignificance) neatly makes the point about maps being rooted in their cultures.

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Why, then, has so much fuss been made about the 'new geography', and its claim to reveal that maps are texts to be read, recognisable products of the historical context in which they were made? The fuss is real enough: the editor of this posthumous collection of essays by J.B. Harley, bellwether of the new geography, took the unusual precaution of including a critical introduction by J.H. Andrews, for fear that Harley's approach might become 'an unquestioned orthodoxy or worse, a catechism'. Just what that approach was defies easy summary because it hybridised so many diverse elements. Panofsky, Marx, Cassirer, Derrida, Foucault, Barthes, Gombrich and Kuhn would no doubt have been astonished (and perhaps appalled) to be invoked in the same essay, sometimes even in the same sentence. But it was probably less this motley pantheon of authorities than Harley's gift for provocative aphorisms – e.g. 'Maps are pre-eminently a language of power, not protest' – that won him an avid audience in and beyond the history of cartography.

In his survey of the way images of the terrestrial globe have been shaped and in turn have shaped Western notions of the Earth and of humanity, Denis Cosgrove is less preoccupied by the notion of maps as 'power-techniques' but he, too, is alert to the subtle and not so subtle ways maps and globes send messages and serve interests. From the heart-shaped projections favoured by 16th-century religious reformers for their associations with brotherly love to the Van der Grinten projection which exaggerates the size of the temperate at the expense of the tropical zones and was long preferred by the *National Geographic* magazine, even the most technical aspects of mapmaking take on an ideological cast. The new geography has given maps more than textuality and contextuality: it has given them politics.

Hence the fuss: politics are immiscible with objectivity, and objectivity is the sine qua non of a good map. The word 'objective' crops up often in these books, almost always when the authors are debunking one or another map or mapmaking practice as anything but. Harley points out that early modern European maps of the New World tended to show domesticated landscapes and to obscure the Indian presence on land that seemingly beckoned overseas settlers. He concludes that these and other cartographic 'silences' reveal 'a different subjectivity, that inherent in the replication of the state's dominant ideology'. Cosgrove does not hammer away at state and landed interests so insistently, but for him, as for Harley, the 'disinterested and rationally objective' Apollonian vision of the Earth from above is as closely connected to 'lust for material possessions, power and authority' as it is to 'metaphysical speculation, religious aspiration or poetic sentiment'.

Objectivity is a slippery notion for cartographers and their historians. Sometimes it means plain old accuracy: there is no North-West Passage emanating from Hudson Bay; there are continents beyond the Mediterranean 'oecumene' – the 'inhabited world'. Only ignorance and deliberate falsehood sin against this standard of objectivity. When scientific

cartographers worry about the distortions ideology may introduce into maps, they are usually upholding this first standard against political meddling or military secrecy. But other, less obvious standards of objectivity play a larger role in Harley's and Cosgrove's histories. Harley makes much of the 'silences': the Indian names and settlements not shown on 17th-century maps of New England, the slums unmarked on a 19th-century map of London, the cycle routes and footpaths left off the latest road map of North Carolina. Here objectivity (or rather, its evil twin, subjectivity) means something like selectivity, the choosing to represent some things and not others. The choices are often unconscious, but nonetheless consequential, according to Harley, for the political efficacy of maps as pillars of the status quo. Cartographers may violate this second standard of objectivity while keeping well within the bounds of the first: what does appear on the map may satisfy the most exigent criteria of technical accuracy.

Finally, there is a third standard of objectivity against which maps are judged and found wanting, which might be called 'flatness of meaning'. Both Cosgrove and Harley draw attention to the symbolic dimension, analysing the cartouches, coats-of-arms, icons and other elements once dismissed as mere decoration. Cosgrove goes further, to examine how shared visions of the globe crystallise more metaphorical visions of the human condition, famously so in the images of the Earth taken from the Apollo spacecraft, which environmentalists turned into the emblem of a fragile, lonely planet adrift in the dark void. Measured against this third standard, the truly objective map is imaginatively inert, a noble gas among representations. Once again, being emblematic is quite compatible with accuracy and, in the case of the Apollo image, arguably with comprehensiveness as well. A map can run foul of one standard of objectivity, but still satisfy the others.

It is understandable that the new geographers should jumble together these three standards of objectivity, even though some confusion results. (We can agree that inaccuracies introduced with malice aforethought make for bad maps, but a map that did not represent selectively would be the monstrosity Borges described in 'On Exactitude in Science'. And was there ever a map so literal that it did not strike sparks of association in the mind, if only by the variety of colours and the melody of exotic place-names?) The strategic reason for conflating them is that all three block the way to a genuinely historical history of cartography. If maps were made in the Gradgrindian spirit of nothing but the facts, the only changes for the historian to track would be ups and downs in the number of facts and the accuracy with which they are represented. There is an undeniable fascination to the history of mapmaking techniques, even considered in isolation from all the other factors that impinge on the production of maps, from patronage to paper to printing. Take the many ingenious solutions to the mathematical problem of how to flatten the round Earth onto a plane: some distortion is inevitable; all the art and science lies in figuring out where to put the distortion, why to put it there and not elsewhere, and above all, how to do so.

Mercator's projection keeps latitude lines parallel and meridian spacing equal; most important for early modern navigators, it facilitated the conversion of constantly curving rhumb lines (of constant compass bearing) into straight lines on a chart. But its linear scale is true only in the Equatorial regions, which is why Africa and Greenland look to be about the same size, although Africa is about fourteen times larger. Lambert's conical projection represents latitudes as concentric circles centred on the poles, and is well-suited to depicting large land masses in the mid-latitudes that stretch east-west. There are many other contenders, each with its vices and virtues, and all marvels of spatial reasoning. Such techniques may build on one another, and respond to the needs and desires of map-users of the time, but otherwise they are only shallowly rooted in the historical periods in which they happen to emerge. In contrast, maps that are 'subjective' in being either inaccurate or selective or symbolic can be more deeply attached to their historical contexts.

Even Harley's detractors acknowledge that he opened up new questions linking the history of cartography to history proper and the humanities in general, even if some also grumbled about his neglect of the more technical aspects of mapmaking in his later work and the lopsided balance of payments vis-à-vis other disciplines – the history of cartography importing more than it exported, in Andrews's wary phrase. Most of the essays gathered in The New Nature of Maps were written in the 1980s, and their titles have a period ring: 'Maps, Knowledge and Power', 'Deconstructing the Map', 'Silences and Secrecy'. Harley embraced Foucault's dictum that the will-to-truth is always part of the will-to-power, and set out to unmask cartographic knowledge as a case in point. A mood of conspiracy hovers over the essays, a habitual distrust of liberal Enlightenment commonplaces that is the legacy of both Marx and Foucault. Harley seems to have begun to query the received wisdom under the influence of Marxist social history, and at some point to have shifted his allegiance to Foucauldian exposés of knowledge-power, without ever clearly distinguishing between the two. The power of maps in the service of the powers that be is the leitmotif of these essays, but the nature of the power at issue is sometimes blurred. Harley vacillates between power as legitimation through ideology, and power as discipline through technique. In an essay on 18th-century English atlases, he begins with an invocation of Foucault and the 'internal power' that 'suffuses the practices of all cartographic workshops' but ends up with a gesture towards the values and class interests of landowners.

Neither of these idioms of power does justice to Harley's own feel for the spell maps cast. He was not only the sceptical Postmodern historian, keen to expose the way apparently innocent details or techniques shore up the power of the landed gentry or the centralised state or European colonisers. The decorative cartouches that show beavers or codfish send the message that the New World is a cornucopia, ripe for plundering; the pretty pastels of Georgian county maps suggest a 'green and pleasant land' without poverty or squalor. He was also a connoisseur of maps, whose eye had been schooled to linger appreciatively over

these same details of craftsmanship and technical dexterity. Although Harley's punchlines are mostly in the first voice – 'Maps worked principally through legitimation' – it is the second that carries the most perceptive and eloquent passages in these essays. Even when he peers at a place-name (English or Indian?) or a projection (who comes out on top?) with squinty-eyed suspicion, his beautifully chosen examples and illustrations reveal how attuned he was to the visual and poetic seductions of maps.

Read at more than a decade's remove, Harley's arguments at times sound sketchy or overstated. Apropos of place-names imposed by conquering or colonising powers, he asserts that 'whole strata of cultural identity are swept from the map in what amounts to acts of cultural genocide.' Yet even for his own examples, the situation is more complicated: New England did indeed have its Plymouth and New London, but also its Massachusetts and Connecticut. And is it really the case that the use of standard signs in atlases creates 'a geometrical landscape of cold, inhuman facts'? It would, however, be unfair to judge these scattered essays by the standards of the book Harley was unable to complete. They outline a programme for the history of cartography, dotted with some extremely suggestive case studies. No one can read Harley on 'silences', for example, and look at an early modern map of New England or Virginia in the same way again. It was not only a matter of placenames and cartouches, but also of the imposition of a different way of conceptualising spaces and territories. Since many tribes relied on place-names and landmarks rather than on surveyed reference points to find their way, renaming, say, 'Quinnipiac' as 'New Haven' was more than a mere linguistic appropriation. Harley's arguments about how 'genuflections to rank and power' were encoded in 18th-century English county maps may be less persuasive, at least on the evidence offered. Yet his attention to literally marginalised details, such as coats of arms or idyllic pictures of country labourers, as well as to the contents (seats of nobility, turnpike roads, surveying methods) and contexts (patronage, markets, display) of the maps, flags the existence of new kinds of evidence for other historians to investigate – and not only historians of cartography.

Harley was most at home with (though not uncritical of) chorographic or local maps; the techniques of 'internal power' he most resented were those of standardisation – as much because they introduce a bland uniformity as because they control from above. Cosgrove is interested in the opposite extreme of mapmaking: the world as seen from above, way above, which he calls the Apollonian view of the globe. The epoch-spanning attractions of this label are almost irresistible, uniting as it does the sun god's vision of the curving Earth with that of the astronauts whose mission was conveniently named in his honour, even if its application to particular instances of the global imagination from antiquity to the present is a bit strained at times (must every appearance of Jesus with a globe be apostrophised as 'Christ-Apollo'?). No matter: Cosgrove is admirably clear about what he means by the Apollonian view. His survey of the ways in which the Earth has been imagined as a globe,

from Aristotle to the Global Information Infrastructure, is a remarkable history of Western ways of seeing and longing.

Whatever myths are now spun about Columbus confronting the flat-earthers with his orange (or egg), educated Europeans had known since classical times that the Earth was round. Aristotle had already set out the principal arguments: the shape of the shadow cast by the Earth during an eclipse; the changing constellations as one travels southwards. Yet until the Renaissance, the land masses of the spherical Earth were conceived of as clumped together in a more or less rectangular 'oecumene' centred on the Mediterranean (hence the sea's name), surrounded by a huge and mostly empty ocean strewn with a few islands. The excursions of 14th-century Portuguese and Genoan mariners to the Canary Islands, Madeira and the Azores only confirmed this picture of the inhabited world surrounded by a dusting of islands; when John Cabot landed on the Labrador coast in 1497 and Pedro Alvares Cabral made it to Brazil in 1500, they also declared their discoveries to be islands. The kind of map best suited to sailing around the oecumene was the portolano, which began as a listing of locations with compass bearings, and gradually became an outline of the coast, thickly edged with the names of ports and crisscrossed by rhumb lines emanating from compass roses. Island books, often produced by portolano-makers, supplemented these 'coasting' maps with lists and descriptions of islands. Since the *Odyssey*, islands have been the symbol and substance of 'a self-contained world', a function since taken over by the planets of science fiction. Very gradually the globe filled up with land masses; Cosgrove describes how the polar regions were mapped only in the latter half of the 20th century. Alongside the daring voyages of exploration – first by ship, then overland, then by plane, and finally by spaceship – the techniques, calculations and conventions developed that made a uniform presentation of the globe possible: the graticule of latitude and longitude, the expanding repertoire of projections, the methods of calculating longitude at sea, the division of the globe into time zones of 15° longitude by an international congress held in Paris in 1911.

Yet long before the globe was girded, gridded, photographed from the air and contemplated from the Moon, it was envisioned as a whole, dangling tiny and insignificant in the enormous cosmos. Cicero's *Somnium* began a long tradition of such dream voyages to the Moon and beyond, in which the terrestrial globe was viewed from the vantagepoint of a god or angel. Parallel to the efforts to map the Earth, Cosgrove describes the changing cultural significance of the globe as imperial symbol, emblem of perfection or vanity, icon of geometric reason, visual proof of human fraternity, and finally as a small, blue planet floating in the darkness. He takes note of the politics of mapmaking, remarking on the oddity of calling Europe a continent despite the absence of geographic boundaries, and the fact that Greenland and India, with comparable areas, are classified as island and subcontinent respectively. He is illuminating on the reason Greenwich won the competition

to fix the prime meridian in 1884, although at one time or another Paris, Toledo, Tenerife, Bologna and Florence were also candidates for the honour. But his real subject is the geographic imagination, especially the astonishingly persistent and vivid fantasy of seeing the world from the outside, 'whole and round and beautiful and small', as Archibald MacLeish described it when he saw the Apollo photographs of the Earth as seen from the Moon.

Harley and Cosgrove represent distinct currents within the new history of cartography, but what they share is a sense of maps as representations far richer than the fantasies of the perfect copy.

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