

# THE HISTORY OF CARTOGRAPHY / VOLUME 1 / REVIEW ARTICLE

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THE HISTORY OF CARTOGRAPHY: VOLUME 1: CARTOGRAPHY IN PREHISTORIC, ANCIENT AND MEDIEVAL EUROPE AND THE MEDITERRANEAN / edited by J.B. Harley and David Woodward. Chicago; London: University of Chicago Press 1987. 656 p. ISBN 0-226-31633-5: US\$100.

*The History of Cartography* is like a fancy restaurant: it all but defies you not to like the food. The establishment is substantial (two well-bound kilos of 600 double-column pages, 13 tables, 14 lists – some of which go on for pages – 292 figures, 3000 plus footnotes) and the decor is sumptuous (32 additional pages of color). The service is impeccable (footnotes are on the very page on which reference to them is made, they are fully cross-referenced, the 45-page bibliography does double duty as the index to works cited, and the superlative 40-page general index is not only to text and notes, but illustrations *and* captions). The menu is comprehensive (no map, map group or map-like thing – with a single egregious exception – has been written off for any putative failing, of planarity, or accuracy, or realism; and map-like images on rocks, walls, bowls, floors, coffins and coins have been accorded the treatment usually reserved for decorative printed maps of the 17th century) and the waiters are scrupulous in their advice (there is adequate discussion and full citations to literature on all sides of even the silliest squabbles). No portion is too small and some are gargantuan (chapters run up to 93 pages in length). Not cheap, the price reasonably reflects the quality of the ingredients. Yet, as you are bowed out by the maitre d' you take a silent vow ... *not to come again*.

Why not? Except for that disastrous appetizer (Catherine Delano Smith's anachronistic, arbitrary and unreliable chapter on what she calls prehistoric cartography) the food wasn't *bad*. But then again, it wasn't satisfying either. Though you left stuffed, something was missing that the oleaginous leer of the maitre d' was incapable of providing, an absence amid the facts, facts, facts of a genuinely nutritive substance – thought – worse, an insistence that none was to be found that morning in the market. I don't buy it. No scholarly apparatus, no attention to detail, can fill the void left by the absence of purpose (or rationale, or point, or theory) and there is little point still to be encountered in the endless coated pages of this massive but intellectually (spiritually and emotionally) vapid work of reference.

Not that it lacks its brilliances (the articles by David Woodward, Tony Campbell and P.D.A. Harvey are all that could be asked for in a collection of this character), but the sad fact is that the best thing about *The History of Cartography* adheres less in *it* than in the larger project it inaugurates. If I have been given occasion in the past, less is offered here to condemn of chronocentricity, ethnocentricity and chauvinism, and however individual articles may fare in the rummage sales of time, the reapportionment of attention signalled by *The History of Cartography* will be recalled in the annals of the field as of singular importance. That fully two-thirds of the larger project addresses with a kind of passionate seriousness – judging from the tone of this volume – places and periods ordinarily

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dismissed as unworthy of attention (prehistoric Europe, traditional Asian societies, the European middle ages), or as falling outside the purview of an *historical* assessment (the 19th and 20th centuries), must lead to a thoroughgoing reconstruction of thinking about the history of maps and mapping, lord knows, maybe even the construction of some theory. At the conclusion of this volume, for instance, it has been apparent that far from being a wasteland of superstition and decline devoid of cartography, the European middle ages were a veritable *laboratory of innovations*, with no fewer than five strains of cartographic activity – themselves diversified – under development: that of the ancient West, that of the *mappaemundi*, that of the portolan charts, that of large-scale local and regional maps and plans, and that of maps of the sky (these last, however, surveyed in volume 3). That much of this mapmaking was isolated, flaring into existence only to disappear without progeny – the “bold conceptual initiative [of] some particularly imaginative individual” (as Harvey puts it in his introduction to the section on medieval maps) – cannot be denied; but if some of these strains became extinct (and this is far from certain), others matured and interbred, and in any case, such is the nature of evolution. What is evident is that the cartographic activity of 16th and 17th century Europe was neither unprecedented nor radically indebted to a ‘recovered’ Ptolemaic ‘tradition’. Rather it would seem that increasing cartographic activity had all but saturated some intellectual solution, out of which the introduction of Ptolemy precipitated, for instance, the small-scale maps so readily associated with the European renaissance.

Though this is a far cry from “With the discovery and distribution of Ptolemy’s writings and maps in the fifteenth century, after lying dormant for a thousand years, a new interest in cartography developed and the Dark Ages came to an end,”<sup>1</sup> this assertion of medieval richness and continuity with the renaissance is hardly a bold hypothesis (especially given – to repeat myself – the brilliant contributions of Woodward on the *mappaemundi*, Campbell – in the volume’s best essay – on the portolan charts, and Harvey on large-scale maps and plans). After all, the 19th is over, Michelet is read as literature, and Mark Twain is dead. We are no longer in the grip of their compulsion to pay for The Revolution or industrial pollution in the coin of a ‘progress’ measured by the distance achieved from some scarcely imaginable Dark Ages of feudal repression and extinguished thought. Yet even this mild sort of speculative generalization plays but the most meager role in *The History of Cartography*. This may be because most of its authors are too close to their material (not a bad thing in and of itself, but hardly conducive to synthetic vision); or simply because they lack the bent, competence or daring. Whatever the cause, historical overview – except for that of the history of cartography as a subject in its own right (and even this has been rigorously decontextualized) – has been relegated an extraordinarily marginal status, especially as signalled by the 3 percent of the text explicitly devoted to it (Smith’s ‘Prehistoric Man and the History of Cartography: An Introduction’, G. Malcolm Lewis’ ‘The Origins of Cartography’, O.A.W. Dilke’s ‘Cartography in the Ancient World: An Introduction’ and ‘Cartography in the Ancient World: A Conclusion’, Harvey’s ‘Medieval Maps: An Introduction’ and J.B. Harley and Woodward’s ‘Concluding Remarks’). The embarrassing lack of quality that characterizes all but a couple of these twenty pages may in fact have prompted an editorial decision to

eschew the broader demands of history for the narrower but less slippery concerns of counting and cataloguing; but it does call into question both the project's claim to constitute a *history* of cartography and its breathless invocation of the names of, *inter alia*, René Taton, Charles Singer and George Clark, all of whose work embodied not only *scholarship* of the highest order (in which regard there is no faulting *The History of Cartography*), but a *synthetic view of history* such that, no matter the fog of detail, there remained ever visible through it a vision of man that the history was intended to unfurl, a vision that explained not only why one felt compelled to write it but why one might want to read it too. Not only does the presentation of man in this way justify the history (explain what this written history is intended to accomplish *in the world*, allow readers to appreciate why the labor of it was necessary), but even more crucially it enables the historian and reader to make 'sense' of the welter of facts, to interpret them, to give them meaning. Nothing but this act of creative synthesis can distinguish the historian from the antiquarian. Or, as Arthur Winfree has Charles Darwin say:

About thirty years ago there was much talk that geologists ought only to observe and not theorize, and I well remember someone saying that at that rate a man might as well go into a gravel pit and count pebbles and describe their colors. How odd it is that anyone should not see that observation must be for or against some view to be of any service.<sup>2</sup>

And, of course, all of the 'observation' in *The History of Cartography* is for or against some 'view', some model, some theory of man. The problem remains that *that* has plagued the history of cartography from its inception: either these 'views' are **1** not articulated (*man ascends intellectually through Babylon, Egypt, Greece and Rome to 16th century Italy*); or **2** they are articulated but absurd (*Greece was theoretical, Rome practical*) or trivial (*Spaniards progressed more rapidly than Italians*, the "curious preoccupation with conflicting national claims to particular innovations" that Harvey refers to); or **3** they are articulated and neither trivial nor absurd, but instead peculiarly insensitive to the work in cognate fields from which the models or theories are then to be drawn (*early man was childlike*). Each will be exemplified in turn.

An egregious example of the last involves a dependence on the work of Jean Piaget, either for or against (but apparently without having read much of it, certainly without having digested any of it), that vitiates the overviews of Lewis, Smith, and Harley and Woodward. It is not, let me hasten to add, that I object to summoning Piaget to the aid of the history of cartography (to my knowledge, in fact, I was the first to do so<sup>3</sup>), but that there is here a kind of abandon with which the terms 'preoperational', 'topological', 'projective' and 'Euclidean' are tossed about that indicates a failure to recognize that within Piaget's genetic epistemology **1** these are extremely technical terms with rigidly specific meanings whose content is ill-expressed in their names; **2** that in the Piagetian model subsequent stages subsume previous ones, so that 'Euclidean' (or 'metric') spatial relations (which have little to do with Euclid and a lot to do with coordinated systems of reference and measurement) embrace 'projective' relations, which in turn encompass 'topological' relations, which are in turn founded on the prerepresentational 'action' of the sensorimotor period; and **3** that the work is rigorously

ontogenetic, that is, descriptive of the interactions between maturation and socialization, and organism and environment, *in the individual*.<sup>4</sup> Furthermore, any relationship among *spatial cognition*, the *ability* to make maps, and their actual *production* is horribly limited. Anyone who has solicited so-called 'mental sketch maps' from college graduates knows how likely he is to have collected maps exhibiting no more than 'topological relations' from individuals who have manifestly mastered 'formal operations' (the Piagetian period characterized by the construction of the most sophisticated spatial relations, that is, the coordination of systems of references and 'Euclidean' metrics), especially from adults who, as they say, 'can't draw'. In a phrase: you can't judge the level of intellectual development from the degree of 'sophistication' of any isolated product or behavior. Period. How shocking, thus, to read in Lewis' 'The Origins of Cartography' of "cultures in which cognitive development, even in adults, terminated at the preoperational stage." This would imply that such adults could repeat but not reverse an operation, would fail to justify assumptions, would find it difficult to decenter from a given aspect of a situation, and would be unable to coordinate perspectives, among other things. Such adults would, in other words, be behaviorally indistinguishable from, say, your five-year old. Simply put, no such culture of *Homo sapiens* is known; nor, given the nature of Piaget's ontogenetic epistemology, is the ascription to a culture even warranted. I had imagined that the image of the 'childish' progenitor (and 'childish' primitive) had perished with the British Empire, but apparently ideology is less readily shed than territory. (It may, *en passant*, be worth observing that it is one thing to make note of parallel *structures of development* in, say, ontogenetic and phylogenetic sequences, as a way of learning something about developmental logics; but another thing altogether to ascribe the characteristics of behavior associated with a developmental stage in one sequence to a parallel stage in another.<sup>5</sup>

I find it equally difficult to accept Lewis' bland assertion that spatial cognition "has been well researched" and can thus be used to help unravel prehistoric mapping. Even fundamental issues in spatial cognition remain fiercely debated; and little attention – given the consuming problems with spatial cognition in the individual – has been devoted to group manifestations at any scale. In fact, nascent efforts in these directions, dependent on evidence from the history of cartography, are glibly dismissed by Harley and Woodward, once in a footnote, where they merely remark that the Piagetian model "does not appear to coincide with the cultural sequences that can be observed empirically in this volume" (but which sequences they refrain from attempting to describe); and once again where the substantive support offered is that "topological relationships are found in medieval large-scale maps as well as those of the prehistoric period." Now actually, given a model such as Piaget's in which more developed stages subsume earlier ones, this would count as evidence *for* a 'Piagetian' perspective. Again, Piaget's work was ontogenetic; but someone seeking developmental parallels *would expect* to find no less than 'topological relationships' in the medieval examples, presuming them, of course, to be developmentally subsequent – not merely chronologically later – than the prehistoric examples. So much for what Harley and Woodward *said*. But even if we grant that what they meant was something

more like “none other than topological relationships are found in either the prehistoric or the much later medieval maps,” they come off little better. Harvey, after all, insists that much large-scale medieval mapping was isolated at best, if not indeed the bold conceptual initiative of individuals. Were this the case, these maps would have to be understood as the earliest in a yet-to-be-unfolded development sequence, in which case, again, little more than topological relationships would be expected. Either interpretation of Harley and Woodward’s conclusion leads to its contradiction, a result not surprising given the evident level of interest in and knowledge about general models of development.

It might be easy to construe these objections as no more than nit picking, but what are being examined here are the very few threads without which the whole volume dissolves into nothing *but* nits, all of which are in danger of going up in flames set by the intellectual short-circuits caused by this kind of fast and loose play with developmental models. Consider this: as further evidence against (conveniently unspecified) developmental models, Harley and Woodward rely on Smith’s assessment of the achievements of prehistoric mapmakers:

For instance, in the case of map signs there is no evidence to support an evolutionary maturing of the different concepts ... in any of the maps in the period under review. At one end of the time scale are the images from the Upper Paleolithic, in which the idea of plan representation was already present. At the other end, late medieval *mappaemundi* ... tend to use pictorial signs shown in profile ... .

What is distressing here is not Harley and Woodward’s insistence on confounding development and chronology (though this is inexcusable); nor their by now willful refusal to see that developmental models presume subsumption of prior acquisition, not replacement (thus, in our culture, widespread use of contour lines has not eliminated the use of pictorial signs for mountains, even on the part of highly sophisticated cartographers); but rather the fact that in accepting the existence of Paleolithic plans, they rely on an authority who explicitly employs a developmental, frankly Piagetian, model in structuring the very data they depend upon to dismiss one!

But Smith is no better than Harley and Woodward. She, for example, is prone to such expostulations as “the vital fact that prehistoric, like indigenous maps, could only have been constructed according to principles of topological geometry (not Euclidean) remains unappreciated,” as, of course, such errant nonsense should. It is not merely that the assertion has yet to be demonstrated convincingly for indigenous peoples, but that the similarity between contemporary indigenous peoples and earlier man is something many had hoped the history of cartography might *demonstrate*, not take as a datum: the case simply remains to be made. Furthermore, preoperational individuals (the only ones *limited* to topological space) are highly unlikely to have drawn plan views. It is above all else the coordination of perspectives that is necessary for these, an acquisition of a subsequent stage (concrete operations), one largely associated with so-called ‘projective space’. But while Smith insists that Upper Paleolithic man had constructed no more than ‘topological space’ she has him drawing plans right and

left. If the former is true (man in the Upper Paleolithic had yet to coordinate perspectives), what Smith sees are probably *not* plans (I certainly remain entirely skeptical that any are). In this case Harley and Woodward's argument collapses completely. On the other hand, if they are plans, the humans who drew them had doubtless achieved formal operations (as I have no doubt they had: again, there is no contradiction in cognitively sophisticated individuals demonstrably less sophisticated behavior, especially, as the adult sketch mapper daily demonstrates, when the behavior is exclusively cultural in content). But in this case Smith's interpretive criteria have to be overhauled (again throwing Harley and Woodward into confusion). But this needs to be done in any case, for where her criteria are not confused (as in her references to Piaget), they are arbitrary and *ad hoc* in rare degree. For example, with no justification beyond her own convenience, she determines that to be a map an assemblage of rock art has to exhibit at least *six* cartographic signs (the very idea of which puzzles me, since I recognize a sign as cartographic largely by its presence on a map, *not* the other way around<sup>6</sup>). Even more arbitrary is her criterion for a 'complex' map. In the first place, it's merely quantitative, that is, larger, not more complex. But it's *unbelievably* arbitrary. Here it is in full: "It has already been suggested that simple maps should contain a minimum of six signs. Complex topological maps should embody at least three times as many signs (*i.e.*, a minimum of eighteen)." *Paleolithic rock artists take note!*

But Smith's ridiculous and cartographically unmotivated criteria are legion (image elements must not cross, they must be 'neatly' linked, if of the sky they must include the entire sky, not just a single constellation, and so forth and so on), and her article in the end is no more than an embarrassing – if incredibly thorough – tour of the literature. What is so particularly unfortunate is that in this major review (47 pages, 42 figures, one plate) – because of these criteria – almost nothing can be relied upon. In attempting to establish the corpus of prehistoric 'maps' (and looking for maps we might recognize as such in prehistoric periods is as pointless as looking for the bones of *Homo sapiens* among those of *Australopithecus afarensis*, or junked cars in Bronze Age sites) future researchers will have to start where Smith did, from scratch.

None of this needs to be said of the other articles in the volume, whose authors prove, however, little more adept at escaping the trivial or the absurd, at historical synthesis, even at the establishment of social contexts in which to domicile our maps. Consider the matter of portolan style. Despite Campbell's intelligent refusal to engage the sterile debate over national priority, he cannot refrain from using the terms 'Italian style' and 'Catalan style'. Where it might be objected that my preference for less 'loaded' descriptors (*spare* and *florid* come readily to mind) ignores the undoubted national origin of a significant number of these charts, it needs to be observed that this sort of 'national' descriptor engages an anachronism that is all but antihistorical. While none of this detracts from the beauty of Campbell's toponymic dating, I think the question might be asked whether it is useful to view the Mediterranean of the middle ages through the map of the 20th century. To see Spain, France, Italy, Yugoslavia – ... but no, Yugoslavia is *too* anachronistic to pass, but, in the context of the early 14th century not much more so than, say, Italy, as Campbell justifies on one occasion because the

chartmakers in question, though Genoese, worked in Venice. Yet the term hides more than it reveals. With the Po Valley, Lombardy and Tuscany in the German Empire, the Kingdom of Sicily in the Angevin orbit, Sardinia in the hands of Aragon, and Genoa and Venice at each other's throats, Roman *Italia* has shrunk to the Papal States without modern Italy on even the horizon. How does it serve our *historical* comprehension to term 'Catalan' and 'Italian' charts which, as Campbell amply demonstrates, were the intensely localized production of Palma, Genoa and Venice, often at the hands of Jews whose identity as such was manifestly more meaningful than any putative 'nationality' and whose culture was demonstrably pan-Mediterranean? Worse than any comfort the use 'Italian' might lend to chauvinist impulses is the consequent failure – in a chapter on Mediterranean charts – the complex pan-Mediterranean trade that gave them reason. It is not that Campbell does not enounce the fluid mosaic that was Europe (see, for example, his dramatic table of 'Flags and Chartmakers' Response to Political Change'), but that he makes so little hay of it. Certainly the image of the Mediterranean kept in the air by Campbell's prose is far from that of Fernand Braudel or Lucien Febvre who maintain a vision of shifting complexities by insisting upon their structural significance. Had historians of cartography ever dealt in such realities, they never could have traded in nationalist priorisms in the first place. We have so far to go! Braudel has argued that the "Mediterranean has no unity but that created by the movement of men, the relationships they imply, and the routes they follow," while Febvre more simply concluded that "The Mediterranean is the sum of its routes."<sup>7</sup> The chartmakers themselves moved along them, likely in such a cloud of maritime polyglot as to render irrelevant even talk of national languages, the Vesconte from Genoa to Venice, Beccari from Genoa to Barcelona, Domenech from Palma to Naples – cannot the historians of cartography?

How is it that we remain mired in the most banal of stereotypes? How is it that what wishes to be taken as *the* magisterial history of cartography can trade in such canards as the *theoretical Greek* and the *practical Roman*, as though – who said it? – there were anything more practical than a good theory? Such prejudice distorts *every* view, not merely of the Greeks and Romans, but of everything they touch. As theoreticians, the Greeks become scientists; practical, the Romans turn into engineers. Here for instance – but the examples are everywhere: you need only open the book – we have Herodotus refusing "in the name of scientific caution, to make a general map of the inhabited world when the outlines were so uncertain." *In the name of scientific caution.* It is wonderful. Not only is the ultimate source of 'scientific' to be sought in post-Herodotean Aristotelean expressions, but in the sense used here its use is not common until the 19th century. This goes beyond anachronism: this is fantasy. But in *The History of Cartography* the Greeks are ever scientific: "in his scientific measurement of the earth" Eratosthenes had the advantage of the Alexandrian library "which was endowed with many scientific works." Later, "men of Greek birth and education ... continued to make fundamental contributions to the development of scientific mapping," though there were backsliders: Crates, for instance, made a globe the motive for which was "partly literary and historical rather than purely scientific." How un-Greek of

him. On the other hand, Romans are ever practical. Agrippa, for example, has a map 'inscribed' on the marble wall of a colonnade in downtown Rome, nine or so feet high by who knows how wide – a sort of cartographic billboard of the Augustan world – and guess what? "Despite its obvious failings, Agrippa's world map represented new work of a practical Roman type ..." It's laughable: Greece and Rome have become invisible, impossible to see through the dark glasses of our stereotypes, caught, prisoners of our imagination which has too much invested in these images to let them go. But they pollute everything. As Rome disintegrates, so does science and engineering: "During the sixth century, traditional teaching still flourished in the Byzantine world, but signs of decline were already appearing." Our dating techniques are up-to-date, but the images we construct with our new chronologies are as exhausted as ever. Later, medieval ecclesiastics will repeat early Greek beliefs: what was scientific speculation in the mouths of the Greeks will become mysticism in the mouths of the monks. Finally, renaissance 'science' will have to shake off the dead weight of a discredited Aristoteleanism (*vide* Galileo). There is something touching about this Punch and Judy show, but we are not children reading this book, and I can no longer applaud the tired routines. Woodward recently wondered if the history of cartography could endure an incessant polemic: what it cannot endure is anachronism and fantasy masquerading as history.<sup>8</sup>

What is needed is the restoration of the complications of social life that give rise to the mapping impulse. There is information enough: we need only acknowledge it. But a vision of the Mediterranean that sacrifices ethnic diversity for a dumb show of Greek and Roman stereotypes blinds us to the 'birth' of cartography in a potpourri of scarcely enumerable graphic forms (paintings, graphs, diagrams, plans, drawings, charts, illustrations, illuminations) dragged hither and yon along the routes of trade and communication that made the Mediterranean (not just Greece, not just Rome) the fertile cauldron that it was. When Henri Pirenne can insist that "The Empire took no account of Asia, Africa and Europe," and that:

There were colonies of Syrians everywhere. The port of Marseilles was half Greek. As well as these Syrians, the Jews were to be found in all the cities, living in small communities. They were sailors, brokers, bankers, whose influence was as essential in the economic life of the times as was the Oriental influence ...<sup>9</sup>

it seems somehow pointless to belabor the putative Greekness of a Ptolemy likely born in an Egyptian province of Imperial Rome simply because he wrote in Greek (as who today does not write in English?), even to insist on Ptolemy as the culmination, as the "final synthesis of the scientific tradition in Greek cartography that has been traced through a succession of writers in the previous three chapters." The pathology that was no more than a pimple when Campbell slipped the Genoese into Italy (and the Italians into Europe, and Europe into the West, and the West into Civilized Man – ... but not all humans are Genoese and not even all Genoese are chartmakers) has here become a cancer consuming the whole, the more unresisted because unrecognized.



Puzzling in this context *should* be the way in which having traced as the mainstream this 'scientific Greek tradition' through Ptolemy, Dilke (and others) all of a sudden find the Ptolemaic tradition a backwater, with the mainstream populated instead with *mappaemundi* and medieval efforts at large-scale mapping. That this sounds unlikely I cannot but doubt, yet what other sense to make of Dilke's all but concluding, "By the thirteenth century, and by way of the Byzantine Empire, Ptolemy's *Geography* had thus rejoined the mainstream of cartographic history in Europe." But does not the mainstream flow where Ptolemy goes? How to explain this? Here: let me make clear what normative history, as embodied in *The History of Cartography*, insists upon: that the mainstream of cartographic innovation is Greek, Greek, Greek right up into the heyday of the Roman Empire. Then, even though a tradition solidly Ptolemaic, as Greek as ever, endures and develops in Byzantium (to say nothing of the Mediterranean Arab world!), suddenly our gaze is averted, and the mainstream is seen to flow up the Italian peninsula through the *mappaemundi* and north European efforts at large-scale mapping. Why? Because no less deep in us than our Graecophilia is our conviction that the thread of history winds from Babylon through Egypt and Greece to Rome and its unceasing rejuvenations in the Church, the Holy Roman Empire and Napoleon (but see further Hitler and de Gaulle). In this view of history, Greece vanishes in the 7th or 8th century until rediscovered by George, Lord Byron, in the 19th century and, as noxious as this may be, as evidently anathema to the editors of this volume, this is the vision enshrined in their work. Nor is it just in the throwaway phrase (Ptolemy rejoining the mainstream; seeing the Greeks – but not the Byzantine – as scientific) or the chapter titles (though, unnervingly, these do recapitulate the litany), but, in a book which of necessity makes a great deal of world view, the way the Mediterranean is allowed to shrink and swell as needed to sustain our myth. There is no question here of motives or intentions: these are doubtless as pure as life in the academy permits. It is a buried, unnoticed, *assumed* world that surfaces again and again. Here, off the cuff, are Harley and Woodward enumerating desiderata: "Even for the relatively well-worked medieval period, full lists of nautical charts still have to be published and comprehensive searches made for large-scale local maps in Germany, France, Italy, Spain and Portugal." Am I alone in reeling from the absence on this list of, say, Greece, in a project embracing Europe and the Mediterranean? Am I alone in objecting to the way *Mediterranean* gradually turns into *North Mediterranean*? The way the Near East (nice value-free name!) is Mediterranean in the ancient world, but in the medieval world is ... what, Asian? The way North Africa fits into this volume in prehistoric times, in Dynastic Egyptian times, in Hellenic and Roman times, but ... what? Becomes African subsequently? Or will it become Asian through an Arabic connection? Or will Islamic Africa slip through the cracks? There are those who still insist that this is the way history is. *Pfui! This is the way we've made it.* And it's a way that's as discredited as the rest of the imperialist apparatus it evolved to support.

Maybe I expected too much. Maybe the wonderful revisionist impulses of Harley and Woodward raised my expectations higher than a collaborative summation could possibly achieve.<sup>10</sup> Maybe this isn't the beginning of the next

phase of the history of cartography, but no more than the conclusion of the last. But don't get me wrong. If only for the toponymic legerdemain of Tony Campbell or the taxonomic wizardry of David Woodward this book would be a *must buy*. It's necessary. It's the best there's ever been. It's the best. *It's just not very good*.

For the history of cartography, that's state of the art. ...

#### NOTES

<sup>1</sup> Arthur H. Robinson, *Elements of Cartography*, 2nd Edition, Wiley, New York, 1960, page 5.

<sup>2</sup> Arthur T. Winfree, *The Timing of Biological Clocks*, Scientific American Library, New York, 1987, page 119.

<sup>3</sup> Denis Wood, 'Now and Then: Comparisons of Ordinary Americans' Symbol Conventions with Those of Past Cartographers,' *Prologue: The Journal of the National Archives*, 9, 1977, pages 151-61.

<sup>4</sup> Roger Hart and Gary Moore, 'The Development of Spatial Cognition: A Review,' in Roger Downs and David Stea, *Image and Environment*, Aldine, Chicago, 1973; Monique Laurendeau and Adrien Pinard, *The Development of the Concept of Space in the Child*, International Universities Press, New York, 1970; and John Flavell, *The Developmental Psychology of Jean Piaget*, Van Nostrand, Princeton, 1963.

<sup>5</sup> Denis Wood, 'Cultured Symbols: Thoughts on the Cultural Context of Cartographic Symbols,' *Cartographica*, 21, 1984, pages 9-37.

<sup>6</sup> Denis Wood and John Fels, 'Designs on Signs: Myth and Meaning in Maps,' *Cartographica*, 23, 1986, pages 54-102.

<sup>7</sup> Both quotations appear in Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, Volume 1, Harper and Row, New York, 1972, page 276.

<sup>8</sup> David Woodward, 'Reply to Denis Wood's Commentary,' *Cartographica*, 24, 1987, pages 82-85. The remark in question is on page 85.

<sup>9</sup> Henri Pirenne, *Mohammed and Charlemagne*, Norton, New York, 1939, pages 18-19.

<sup>10</sup> For instance, J.B. Harley, 'Silences and Secrecy: The Hidden Agenda of Cartography in Early Modern Europe,' *Imago Mundi*, forthcoming; and David Woodward, 'Reality, Symbolism, Time, and Space in Medieval World Maps,' *Annals of the Association of American Geographers*, 75, 1985, pages 510-21.