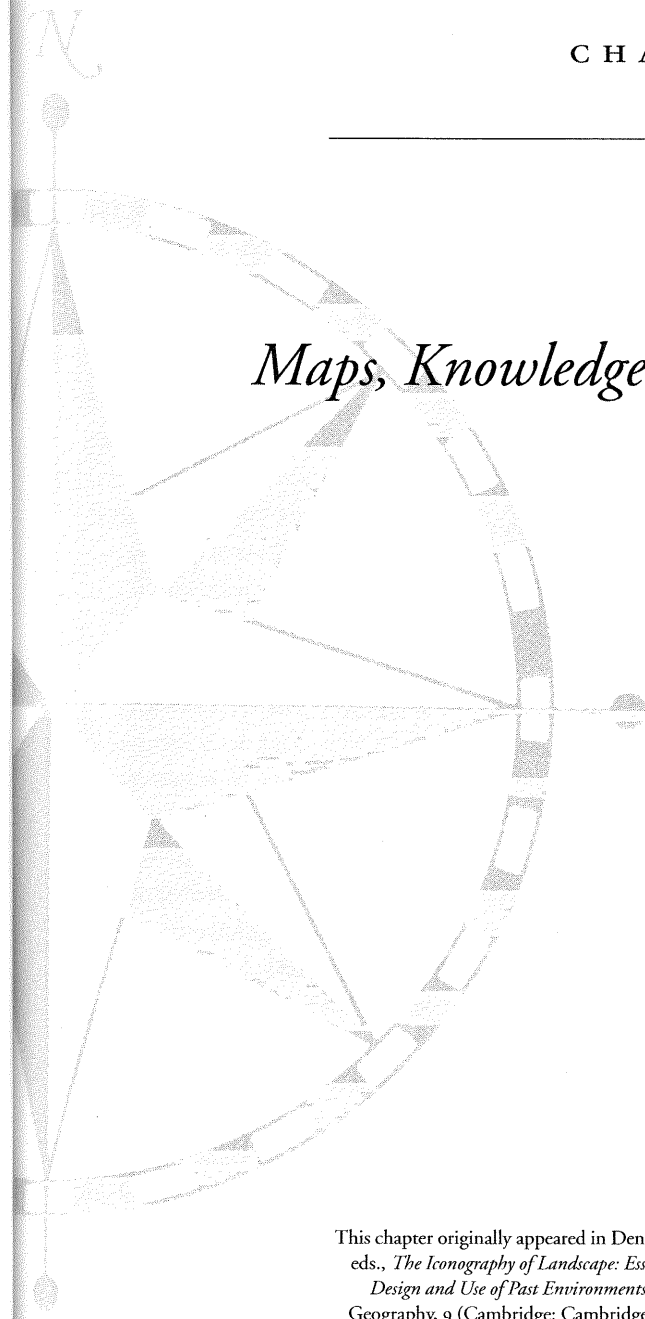
CHAPTER TWO

Maps, Knowledge, and Power



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Give me a map; then let me see how much
Is left for me to conquer all the world, . . .
Here I began to march towards Persia,
Along Armenia and the Caspian Sea,
And thence unto Bithynia, where I took
the Turk and his great empress prisoners.
Then marched I into Egypt and Arabia,
And here, not far from Alexandria
Whereas the Terrene and the Red Sea meet,
Being distant less than full a hundred leagues
I meant to cut a channel to them both
That men might quickly sail to India.
From thence to Nubia near Borno lake,
And so along the Ethiopian sea,
Cutting the tropic line of Capricorn,
I conquered all as far as Zanzibar.

— CHRISTOPHER MARLOWE,
Tamburlaine, Part 2 (V.iii.123–39)

A book about geographical imagery which did not encompass the map would be like *Hamlet* without the Prince.[1] Yet although maps have long been central to the discourse of geography they are seldom read as "thick" texts or as a socially constructed form of knowledge. "Map interpretation" usually implies a search for "geographical features" depicted on maps without conveying how as a manipulated form of knowledge maps have helped to fashion those features.[2] It is true that in political geography and the history of geographical thought the link is increasingly being made between maps and power—especially in periods of colonial history[3]—but the particular role of maps, as images with historically specific codes, remains largely undifferentiated from the wider geographical discourse in which they are often embedded. What is lacking is a sense of what Carl Sauer understood as the eloquence of maps.[4] How then can we make maps "speak" about the social worlds of the past?

Theoretical Perspectives

My aim here is to explore the discourse of maps in the context of political power, and my approach is broadly iconological. Maps will be regarded as part of the broader family of value-laden images.[5] Maps cease to be understood primarily as inert records of morphological landscapes or passive reflections of the world of objects, but are regarded as refracted images contributing to dialogue in a socially constructed world. We thus move the reading of maps away from the canons of traditional cartographical criticism with its string of binary oppositions between maps that are "true and false," "accurate and inaccurate," "objective and subjective," "literal and symbolic," or that are based on "scientific integrity" as opposed to "ideological distortion." Maps are never value-free images; except in the narrowest Euclidean sense they are not in themselves either true or false. Both in the selectivity of their content and in their signs and styles of representation maps are a way of conceiving, articulating, and structuring the human world which is biased towards, promoted by, and exerts influence upon particular sets of social relations.[6] By accepting such premises it becomes easier to see how appropriate they are to manipulation by the powerful in society.

Across this broad conceptual landscape I shall pinpoint three eminences from which to trace some of the more specific ideological contours of maps. From the first I view maps as a kind of language[7] (whether this is taken metaphorically or literally is not vital to the argument).[8] The idea of a cartographic language is also preferred to an approach derived directly from semiotics which, while having attracted some cartographers,[9] is too blunt a tool for specific historical enquiry. The notion of language more easily translates into historical practice. It not only helps us to see maps as reciprocal images used to mediate different views of the world but it also prompts a search for evidence about aspects such as the codes and context of cartography as well as its content in a traditional sense. A language—or perhaps more aptly a "literature" of maps—similarly urges us to pursue questions about changing readerships for maps, about levels of carto-literacy, conditions of authorship, aspects of secrecy and censorship, and also about the nature of the political statements which are made by maps.

In addition, literary criticism can help us to identify the particular form of

cartographic "discourse" which lies at the heart of this essay. Discourse has been defined as concerning "those aspects of a text which are appraisive, evaluative, persuasive, or rhetorical, as opposed to those which simply name, locate, and recount."[10] While it will be shown that "simply" naming or locating a feature on a map is often of political significance, it nevertheless can be accepted that a similar cleavage exists within maps. They are a class of rhetorical images and are bound by rules which govern their codes and modes of social production, exchange, and use just as surely as any other discursive form. This, in turn can lead us to a better appreciation of the mechanisms by which maps—like books—became a political force in society.[11]

A second theoretical vantage point is derived from Panofsky's formulation of iconology.[12] Attempts have already been made to equate Panofsky's levels of interpretation in painting with similar levels discernible in maps.[13] For maps, iconology can be used to identify not only a "surface" or literal level of meaning but also a "deeper" level, usually associated with the symbolic dimension in the act of sending or receiving a message. A map can carry in its image such symbolism as may be associated with the particular area, geographical feature, city, or place which it represents.[14] It is often on this symbolic level that political power is most effectively reproduced, communicated, and experienced through maps.

The third perspective is gained from the sociology of knowledge. It has already been proposed that map knowledge is a social product,[15] and it is to clarify this proposition that two sets of ideas have been brought to bear upon the empirical examples in this essay. The first set is derived from Michel Foucault, who, while his observations on geography and maps were cursory,[16] nevertheless provides a useful model for the history of map knowledge in his critique of historiography: "the quest for truth was not an objective and neutral activity but was intimately related to the 'will to power' of the truth-seeker. Knowledge was thus a form of power, a way of presenting one's own values in the guise of scientific disinterestedness."[17]

Cartography, too, can be "a form of knowledge and a form of power." Just as "the historian paints the landscape of the past in the colours of the present,"[18] so the surveyor, whether consciously or otherwise, replicates not just the "environment" in some abstract sense but equally the territorial imperatives of a particular political system. Whether a map is produced under the banner of cartographic science—as most official maps have been—or whether

it is an overt propaganda exercise, it cannot escape involvement in the processes by which power is deployed. Some of the practical implications of maps may also fall into the category of what Foucault has defined as acts of "surveillance,"[19] notably those connected with warfare, political propaganda, boundary making, or the preservation of law and order.

Foucault is not alone in making the connection between power and knowledge. Anthony Giddens, too, in theorizing about how social systems have become "embedded" in time and space (while not mentioning maps explicitly) refers to "authoritative resources" (as distinguished from material resources) controlled by the state: "storage of authoritative resources involves above all *the retention and control of information or knowledge.* There can be no doubt that the decisive development here is the invention of writing and notation."[20] Maps were a similar invention in the control of space and facilitated the geographical expansion of social systems, "an undergirding medium of state power." As a means of surveillance they involve both "the collation of information relevant to state control of the conduct of its subject population" and "the direct supervision of that conduct."[21] In modern times the greater the administrative complexity of the state—and the more pervasive its territorial and social ambitions—then the greater its appetite for maps.

What is useful about these ideas is that they help us to envisage cartographic images in terms of their political influence in society. The mere fact that for centuries maps have been projected as "scientific" images—and are still placed by philosophers and semioticians in that category[22]—makes this task more difficult. Dialectical relationships between image and power cannot be excavated with the procedures used to recover the "hard" topographical knowledge in maps and there is no litmus test of their ideological tendencies.[23] Maps as "knowledge as power" are explored here under three headings: the universality of political contexts in the history of mapping; the way in which the exercise of power structures the content of maps; and how cartographic communication at a symbolic level can reinforce that exercise through map knowledge.

Political Contexts for Maps

Tsar. My son, what so engrosses you? What's this?
Fyodor. A map of Muscovy; our royal kingdom
From end to end. Look, father,

Moscow's here
Here Novgorod, there Astrakhan.
The sea there,
Here is the virgin forestland of Perm,
And there Siberia.
Tsar. And what may this be,
A winding pattern tracing?
Fyodor. It's the Volga.
Tsar. How splendid! The delicious fruit of learning!
Thus at a glance as from a cloud to scan
Our whole domain: its boundaries, towns, rivers.

—Alexander Pushkin, *Boris Godunov*

In any iconological study it is only through context that meaning and influence can properly be unraveled. Such contexts may be defined as the circumstances in which maps were made and used. They are analogous to the "speech situation" in linguistic study[24] and involve reconstructions of the physical and social settings for the production and consumption of maps, the events leading up to these actions, the identity of map makers and map users, and their perceptions of the act of making and using maps in a socially constructed world. Such details can tell us not only about the motives behind cartographic events but also what effect maps may have had and the significance of the information they communicate in human terms.

Even a cursory inspection of the history of mapping will reveal the extent to which political, religious, or social power produce the context of cartography. This has become clear, for example, from a detailed study of cartography in prehistoric, ancient and medieval Europe, and the Mediterranean. Throughout the period, "mapmaking was one of the specialised intellectual weapons by which power could be gained, administered, given legitimacy, and codified."[25] Moreover, this knowledge was concentrated in relatively few hands and "maps were associated with the religious elite of dynastic Egypt and of Christian medieval Europe; with the intellectual elite of Greece and Rome; and with the mercantile elite of the city-states of the Mediterranean world during the late Middle Ages."[26]

Nor was the world of ancient and medieval Europe exceptional in these respects. Cartography, whatever other cultural significance may have been attached to it, was always a "science of princes." In the Islamic world, it was

the caliphs in the period of classical Arab geography, the Sultans in the Ottoman Empire, and the Mogul emperors in India who are known to have patronized map making and to have used maps for military, political, religious, and propaganda purposes.[27] In ancient China, detailed terrestrial maps were likewise made expressly in accordance with the policies of the rulers of successive dynasties and served as bureaucratic and military tools and as spatial emblems of imperial destiny.[28] In early modern Europe, from Italy to the Netherlands and from Scandinavia to Portugal, absolute monarchs and statesmen were everywhere aware of the value of maps in defense and warfare, in internal administration linked to the growth of centralized government, and as territorial propaganda in the legitimation of national identities. Writers such as Castiglione, Elyot, and Machiavelli advocated the use of maps by generals and statesmen.[29] With national topographic surveys in Europe from the eighteenth century onwards, cartography's role in the transaction of power relations usually favored social elites.

The specific functions of maps in the exercise of power also confirm the ubiquity of these political contexts on a continuum of geographical scales. These range from global empire building, to the preservation of the nation state, to the local assertion of individual property rights. In each of these contexts the dimensions of polity and territory were fused in images which—just as surely as legal charters and patents—were part of the intellectual apparatus of power.

Maps and Empire

As much as guns and warships, maps have been the weapons of imperialism. Insofar as maps were used in colonial promotion, and lands claimed on paper before they were effectively occupied, maps anticipated empire. Surveyors marched alongside soldiers, initially mapping for reconnaissance, then for general information, and eventually as a tool of pacification, civilization, and exploitation in the defined colonies. But there is more to this than the drawing of boundaries for the practical political or military containment of subject populations. Maps were used to legitimize the reality of conquest and empire. They helped create myths which would assist in the maintenance of the territorial status quo. As communicators of an imperial message, they have been used as

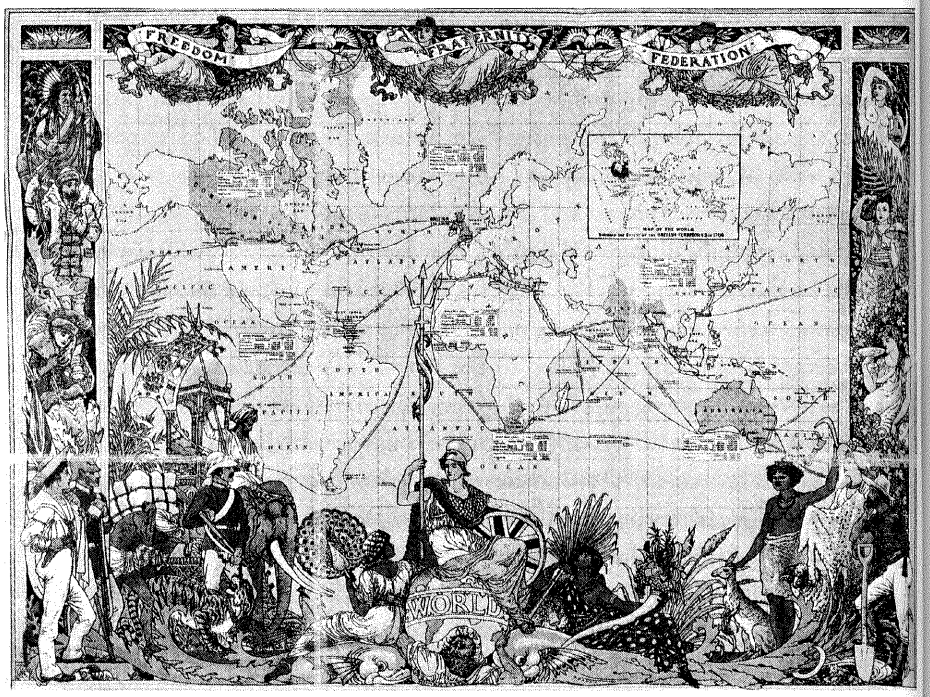


Figure 1. Imperial Federation—Map of the World Showing the Extent of the British Empire in 1886 was first published as a supplement to the *Graphic* newspaper, 24 July 1886. Mercator's projection, a pink tint for empire territory, and decorative emblems showing Britannia seated on the world are used to articulate the message of the "New Imperialism." By permission of the British Library.

an aggressive complement to the rhetoric of speeches, newspapers, and written texts, or to the histories and popular songs extolling the virtues of empire.[30]

In these imperial contexts, maps regularly supported the direct execution of territorial power. The grids laid out by the Roman *agrimensores,* made functional in centuriation, were an expression of power "rolled out relentlessly in all directions . . . homogenizing everything in its path,"[31] just as the United States rectangular land survey created "Order upon the Land" in more senses than merely the replication of a classical design.[32] The rediscovery of the Ptolemaic system of coordinate geometry in the fifteenth century was a critical cartographic event privileging a "Euclidean syntax" which structured European territorial control.[33] Indeed, the graphic nature of the map gave its

imperial users an arbitrary power that was easily divorced from the social responsibilities and consequences of its exercise. The world could be carved up on paper. Pope Alexander VI thus demarcated the Spanish and Portuguese possessions in the New World.[34] In the partitioning of North America, itself "part of a vast European process and experiment, an ongoing development of worldwide imperialism," the "very lines on the map exhibited this imperial power and process because they had been imposed on the continent with little reference to indigenous peoples, and indeed in many places with little reference to the land itself. The invaders parceled the continent among themselves in designs reflective of their own complex rivalries and relative power."[35] In the nineteenth century, as maps became further institutionalized and linked to the growth of geography as a discipline, their power effects are again manifest in the continuing tide of European imperialism. The scramble for Africa, in which the European powers fragmented the identity of indigenous territorial organization, has become almost a textbook example of these effects.[36] And in our own century, in the British partition of India in 1947, we can see how the stroke of a pen across a map could determine the lives and deaths of millions of people.[37] There are innumerable contexts in which maps became the currency of political "bargains," leases, partitions, sales, and treaties struck over colonial territory and, once made permanent in the image, these maps more than often acquired the force of law in the landscape.

Maps and the Nation-State

The history of the map is inextricably linked to the rise of the nation-state in the modern world. Many of the printed maps of Europe emphasized the estates, waterways, and political boundaries that constituted the politico-economic dimensions of European geography.[38] Early political theorists commended maps to statesmen who in turn were among their first systematic collectors.[39] The state became—and has remained—a principal patron of cartographic activity in many countries.[40]

Yet while the state was prepared to finance mapping, either directly through its exchequer or indirectly through commercial privilege, it often insisted that such knowledge was privileged. In western Europe the history of cartographic secrecy, albeit often ineffective, can be traced back to the sixteenth-century Spanish and Portuguese policy of *siglio.*[41] It was the practice

to monopolize knowledge, "to use geographic documents as an economic resource, much as craft mysteries were secreted and used."[42]

A major example of the interaction between maps and state polity is found in the history of military technology. In military eyes, maps have always been regarded as a sensitive sort of knowledge, and policies of secrecy and censorship abound as much today in the "hidden" specifications of defence and official map-making agencies as in the campaign headquarters of the past.[43] At a practical level, military maps are a small but vital cog in the technical infrastructure of the army in the field. As the techniques of warfare were transformed from siege tactics to more mobile strategies, especially from the eighteenth century onwards, so too were the maps associated with them transformed.[44] Even in these active contexts, however, there were subtler historical processes at work. Map knowledge allows the conduct of warfare by remote control so that, we may speculate, killing is that more easily contemplated.[45] Military maps not only facilitate the technical conduct of warfare, but also palliate the sense of guilt which arises from its conduct: the silent lines of the paper landscape foster the notion of socially empty space.

Not all military maps are silent; many stridently proclaim military victory. Just as there were military parades, songs, and poems, so too, at least from the fifteenth century onwards in Europe, there have been battle plans designed to commemorate the sacred places of national glory.[46]

Maps and Property Rights

Cadastral or estate maps showing the ownership of property reveal the role of mapping in the history of agrarian class relations. Here the map may be regarded as a means by which either the state or individual landlords could more effectively control a tenant or peasant population.[47] In Roman society the codified practices of the *agrimensores* may be interpreted not just as technical manuals of land division in a theoretical sense but also as a social apparatus for legally regulating appropriated lands and for exacting taxation.[48] The maps themselves, whether cast in bronze or chipped in stone, were designed to make more permanent a social order in which there were freemen and slaves and for which the territorial division of land was the basis of status.[49] In early modern Europe, too, though the sociological context of mapping was different, some of the same forces were at work. The extent to which the mapping of local rural areas was locked into the process of litigation can leave us in no doubt about its socio-legal context and as a means by which conflict between lords and peasants over private rights in land could be more effectively pursued.[50] Maps fitted as easily into the culture of landed society as they had into the courtly diplomacies and the military maneuvers of European nation-states in the Renaissance.

In similar terms maps can be seen to be embedded in some of the long-term structural changes of the transition from feudalism to capitalism. The world economy and its new geographical division of labor was produced with the aid of geographical documents including maps.[51] Accurate, large-scale

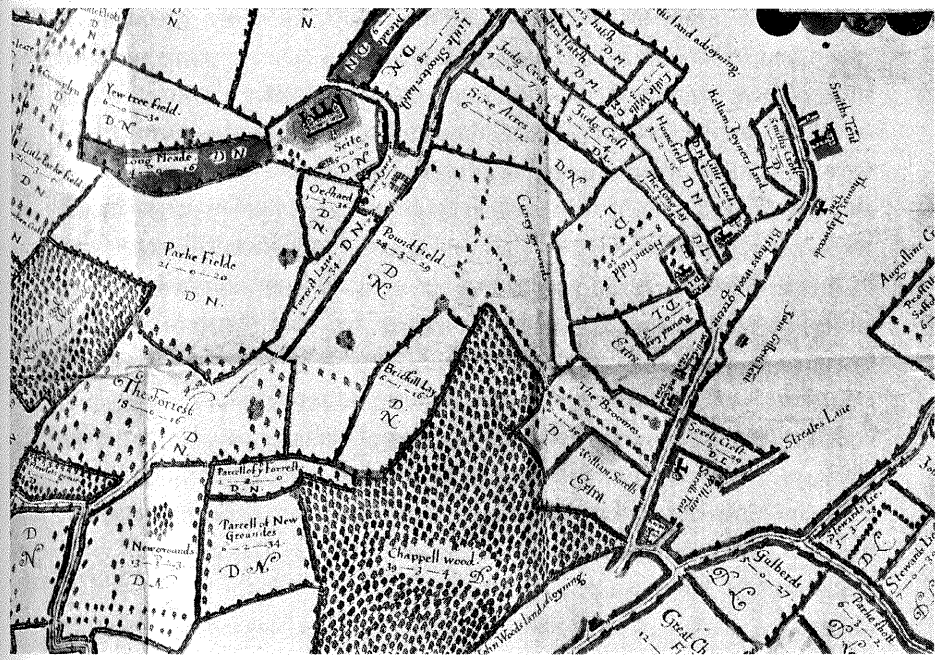


Figure 2. Large-scale estate maps, and the written cadastres they accompanied, became a tool in the rise of agrarian capitalism in England from the sixteenth century. In this portion of Samuel Walker's map of the estate of Garnetts, Essex (1622), details of ownership (DN = Edward Naylor's desmesne, DL = Richard Lavender's desmesne, etc.), precise delineation, and accurate measurement (in acres, roods, perches) translate property rights into a tangible and legally binding image. The original is at a scale of about twenty inches to one mile. This reproduction is approximately 1.0 by 0.7 miles. By permission of the British Library (Additional Manuscripts 41848).

plans were a means by which land could be more efficiently exploited, by which rent rolls could be increased, and by which legal obligations could be enforced or tenures modified. Supplementing older, written surveys, the map served as a graphic inventory, a codification of information about ownership, tenancy, rentable values, cropping practice, and agricultural potential, enabling capitalist landowners to see their estates as a whole and better to control them.[52] Seeing was believing in relation to the territorial hierarchies expressed in maps. Whether in the general history of agricultural improvement, of enclosure, of the draining or embankment of fens and marshes, or of the reclamation of hill and moor, the surveyor ever more frequently walks at the side of the landlord in spreading capitalist forms of agriculture.[53]

Maps impinged invisibly on the daily lives of ordinary people. Just as the clock, as a graphic symbol of centralized political authority, brought "time discipline" into the rhythms of industrial workers,[54] so too the lines on maps, dictators of a new agrarian topography, introduced a dimension of "space discipline." In European peasant societies, former commons were now subdivided and allotted, with the help of maps, and in the "wilderness" of former Indian lands in North America, boundary lines on the map were a medium of appropriation which those unlearned in geometrical survey methods found impossible to challenge. Maps entered the law, were attached to ordinances, acquired an aureole of science, and helped create an ethic and virtue of ever more precise definition. Tracings on maps excluded as much as they enclosed. They fixed territorial relativities according to the lottery of birth, the accidents of discovery, or, increasingly, the mechanism of the world market.

Map Content in the Transaction of Power

> "Is that the same map?" Jincey asked. She pointed to the large map of the world that hung, rolled up for the summer, above the blackboard behind Miss Dove. "Is China still orange?" "It is a new map," Miss Dove said. "China is purple." "I liked the old map," Jincey said. "I like the old world." "Cartography is a fluid art," said Miss Dove. —Frances Gray Patton, *Good Morning, Miss Dove*

Cartographers and map historians have long been aware of tendencies in the content of their maps that they call "bias," "distortion," "deviance," or the "abuse" of sound cartographic principles. But little space in cartographic literature is devoted to the political implications of these terms and what they represent, and even less to their social consequences. Such "bias" or "distortion" is generally measured against a yardstick of "objectivity," itself derived from cartographic procedure. Only in deliberately distorted maps, for example in advertising or propaganda, are the consequences discussed.[55] "Professional" cartography of the Ordnance Survey, the USGS, Bartholomew or Rand McNally or their predecessors would be regarded as largely free from such politically polluted imagery. That maps can produce a truly "scientific" image of the world, in which factual information is represented without favor, is a view well embedded in our cultural mythology. To acknowledge that all cartography is "an intricate, controlled fiction"[56] does not prevent our retaining a distinction between those presentations of map content which are deliberately induced by cartographic artifice and those in which the structuring content of the image is unexamined.

Deliberate Distortions of Map Content

Deliberate distortions of map content for political purposes can be traced throughout the history of maps, and the cartographer has never been an independent artist, craftsman, or technician. Behind the map maker lies a set of power relations, creating its own specification. Whether imposed by an individual patron, by state bureaucracy, or the market, these rules can be reconstructed both from the content of maps and from the mode of cartographic representation. By adapting individual projections, by manipulating scale, by over-enlarging or moving signs or typography, or by using emotive colors, makers of propaganda maps have generally been the advocates of a one-sided view of geopolitical relationships. Such maps have been part of the currency of international psychological warfare long before their use by Nazi geopoliticians. The religious wars of seventeenth-century Europe and the Cold War of the twentieth century have been fought as much in the contents of propaganda maps as through any other medium.[57]

Apparently objective maps are also characterized by persistent manipulation of content. "Cartographic censorship" implies deliberate misrepresentation designed to mislead potential users of the map, usually those regarded as opponents of the territorial status quo. We should not confuse this with deletions or additions resulting from technical error or incompetence or made

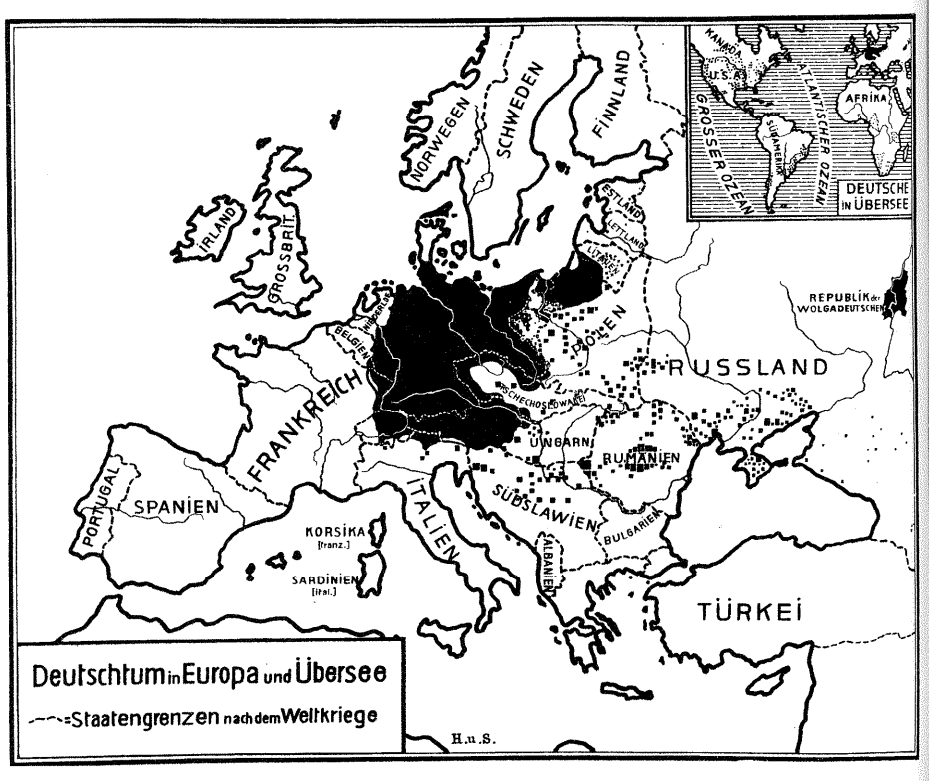


Figure 3. Even simple thematic maps can carry subtle propaganda messages. This school atlas map, from *Geschichtsatlas für die deutsch Jungen* (Julius Belz, 3d ed., 1935), represents Germanic elements in Europe and (inset) overseas but omits a key to the values of the three sizes of symbol. While the distribution pattern is realistic, German minorities in European countries were usually very much smaller (under 4% of total population) than the use of ranked symbols suggests. By the permission of the British Library (Maps 30.b.25).

necessary by scale or function. Cartographic censorship removes from maps features which, *other things being equal,* we might expect to find on them. Naturally this is less noticeable than blatant distortion. It is justified on grounds of "national security," "political expediency," or "commercial necessity" and is still widely practiced. The censored image marks the boundaries of permissible discourse and deliberate omissions discourage "the clarification of social alternatives," making it "difficult for the dispossessed to locate the source of their unease, let alone to remedy it."[58]

The commonest justification for cartographic censorship has probably always been military. In its most wholesale form it has involved prohibiting the publication of surveys.[59] On the other hand settlement details on eighteenth-century maps were left unrevised by Frederick the Great to deceive a potential enemy, just as it has been inferred that the towns on some Russian maps were deliberately relocated in incorrect positions in the 1960s to prevent strategic measurements being taken from them by enemy powers.[60] Since the nineteenth century, too, it has been almost universal practice to "cleanse" systematically evidence of sensitive military installations from official series of topographical maps.[61] The practice now extends to other features where their inclusion would be potentially embarrassing to the government of the day, for example, nuclear waste dumps are omitted from official USGS topographical maps.

Deliberate falsification of map content has been associated with political considerations other than the purely military. Boundaries on maps have been subject to graphic gerrymandering. This arises both from attempts to assert historical claims to national territory,[62] and from the predictive art of using maps to project and to legitimate future territorial ambitions.[63] For example, disputed boundaries, whether shown on official maps, in atlases, or in more ephemeral images such as postage stamps, have been either included or suppressed according to the current political preference.[64] Nor do these practices apply solely to political boundaries on maps. It is well documented how the geographies of language, "race," and religion have been portrayed to accord with dominant beliefs.[65] There are the numerous cases where indigenous place-names of minority groups are suppressed on topographical maps in favor of the standard toponymy of the controlling group.[66]

"Unconscious" Distortions of Map Content

Of equal interest to the student of cartographic iconology is the subtle process by which the content of maps is influenced by the values of the map-producing society. Any social history of maps must be concerned with these hidden rules of cartographic imagery and with their accidental consequences.[67] Three aspects of these hidden structures—relating to map geometry, to "silences" in the content of maps, and to hierarchical tendencies in cartographic representation will be discussed.

Subliminal Geometry

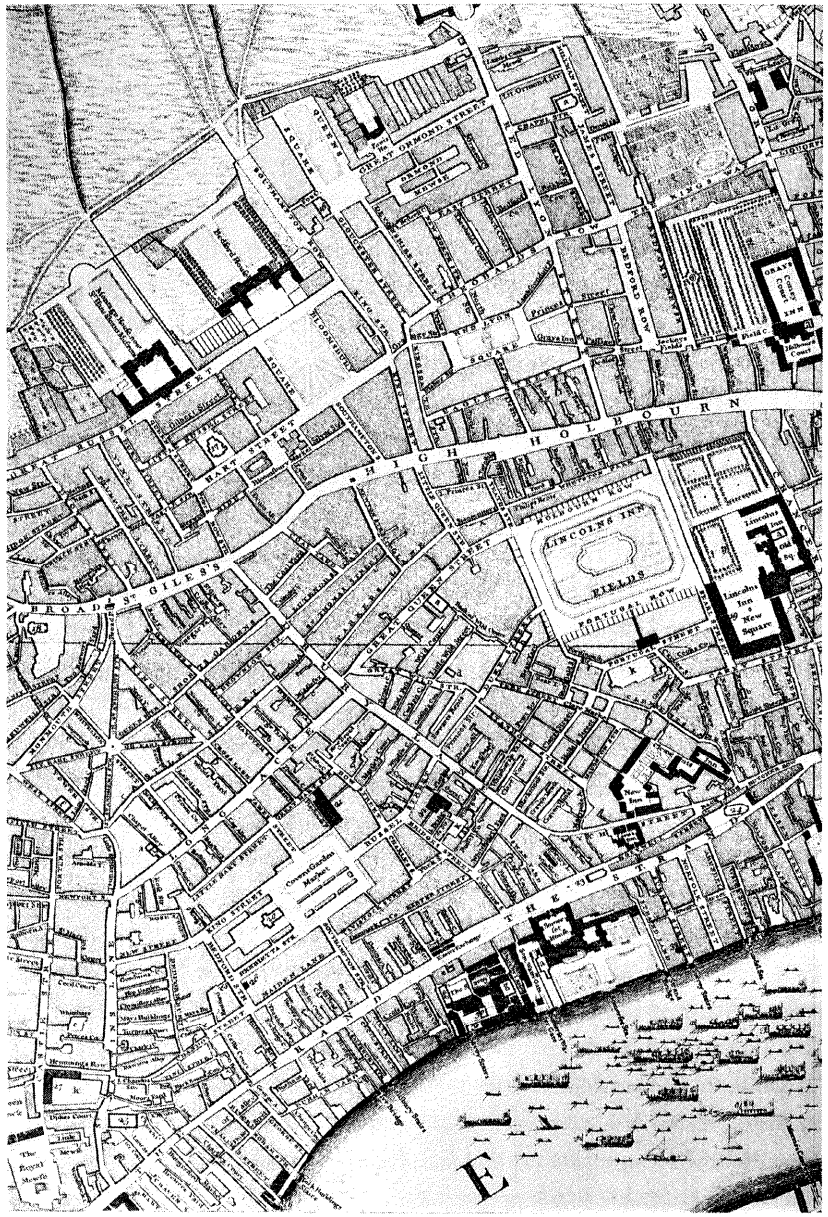
The geometrical structure of maps—their graphic design in relation to the location on which they are centred or to the projection which determines their transformational relationship to the earth[68]—is an element which can magnify the political impact of an image even where no conscious distortion is intended. A universal feature of early world maps, for example, is the way they have been persistently centred on the "navel of the world," as this has been perceived by different societies. This "*omphalos* syndrome,"[69] where a people believe themselves to be divinely appointed to the center of the universe, can be traced in maps widely separated in time and space, such as those from ancient Mesopotamia with Babylon at its center, maps of the Chinese universe centred on China, Greek maps centered on Delphi, Islamic maps centered on Mecca, and those Christian world maps in which Jerusalem is placed as the "true" center of the world.[70] The effect of such "positional enhancing"[71] geometry on the social consciousness of space is difficult to gauge and it would be wrong to suggest that common design features necessarily contributed to identical world views. At the very least, however, such maps tend to focus the viewer's attention upon the center, and thus to promote the development of "exclusive, inward-directed worldviews, each with its separate cult center safely buffered within territories populated only by true believers."[72]

A similarly ethnocentric view may have been induced by some of the formal map projections of the European Renaissance. In this case, too, a map "structures the geography it depicts according to a set of beliefs about the way the world should be, and presents this construction as truth."[73] In the well-known example of Mercator's projection it is doubtful if Mercator himself—who designed the map with navigators in mind to show true compass directions—would have been aware of the extent to which his map would eventually come to project an image so strongly reinforcing the Europeans' view of their own world hegemony. Yet the simple fact that Europe is at the center of the world on this projection, and that the area of the land masses are so distorted that two-thirds of the earth's surface appears to lie in high latitudes, must have contributed much to a European sense of superiority. Indeed, insofar as the "white colonialist states" appear on the map relatively larger than they are while "the colonies" inhabited by colored peoples are shown "too small" suggests how it can be read and acted upon as a geopolitical prophecy.[74]

The Silence on Maps

The notion of "silences" on maps is central to any argument about the influence of their hidden political messages. It is asserted here that maps—just as much as examples of literature or the spoken word—exert a social influence through their omissions as much as by the features they depict and emphasize.

So forceful are the political undercurrents in these silences that it is sometimes difficult to explain them solely by recourse to other historical or technical factors. In seventeenth-century Ireland, for example, the fact that surveyors working for English proprietors sometimes excluded the cabins of the native Irish from their otherwise "accurate" maps is not just a question of scale and of the topographical prominence of such houses, but rather of the religious tensions and class relations in the Irish countryside.[75] Much the same could be said about omissions on printed county surveys of eighteenth-century England: the exclusion of smaller rural cottages may be a response as much to the ideal world of the map makers' landed clients as to the dictates of cartographic scale.[76] On many early town plans a map maker may have unconsciously ignored the alleys and courtyards of the poor in deference to the principal thoroughfares, public buildings, and residences of the merchant class in his conscious promotion of civic pride or vaunting commercial success.[77] Such ideological filtering is a universal process. In colonial mapping, as in eighteenth-century North America, silences on maps may also be regarded as discrimination against native peoples. A map such as Fry and Jefferson's of Virginia (1751) suggests that the Europeans had always lived there: where "Indian nations" are depicted on it, it is more as a signpost to future colonial expansion than as a recognition of their ethnic integrity.[78] In this way, throughout the long age of exploration, European maps gave a one-sided view of ethnic encounters and supported Europe's God-given right to territorial appropriation. European atlases, too, while codifying a much wider range of geographical knowledge, also promoted a Eurocentric, imperialist vision, including as they did a bias towards domestic space which sharpened Euro-



peans' perception of their cultural superiority in the world system.[79] Silences on maps—often becoming part of wider cultural stereotypes—thus came to enshrine self-fulfilling prophecies about the geography of power.

Representational Hierarchies

The role of the map as a form of social proclamation is further strengthened by the systems of classification and modes of representation—the so-called conventional or cartographic signs[80]—which have been adopted for landscape features. It has long been one of the map maker's rules that the signs for towns and villages—whether depicted iconically or by abstract devices—are shown proportionally to the rank of the places concerned. Yet the resulting visual hierarchy of signs in early modern maps is often a replica of the legal, feudal, and ecclesiastical stratifications. Indeed, the concept of a tiered territorial society was by no means lost on contemporary map makers. Mercator, for example, had hoped in his 1595 atlas to show "an exact enumeration and designation of the seats of princes and nobles."[81] Like other map makers before him, he designed a set of settlement signs which, just as truly as the grids which have already been discussed, reify an ordering of the space represented on the map by making it visible. On other maps, towns occupy spaces on the map—even allowing for cartographic convention—far in excess of their sizes on the ground.[82] Castle signs, too, signifying feudal rank and military might, are sometimes larger than signs for villages, despite the lesser area they occupied on the ground. Coats of arms—badges of territorial possession—were used to locate the *caput* of a lordship while the tenurially dependent settlements within the feudal order were allocated inferior signs irrespective of their population or area size. This was particularly common on maps of German territory formerly within the Holy Roman Empire. Such maps pay considerable attention to the geography of ecclesiastic power. The primary message was often

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Figure 4. Silences on maps: Detail of John Rocque's *A Plan of the Cities of London and Westminster* (1775) showing the built-up area west of the City of London and the prestigious new green field developments of Bloomsbury. While districts to the north of Covent Garden and around Broad Street and St Giles were rapidly becoming slums, the cartographer has produced an idealized view of the city which emphasizes the gracious rurality of the main squares but fails to convey urban squalor. By permission of the British Library (Grace Collection, port. 3:107).

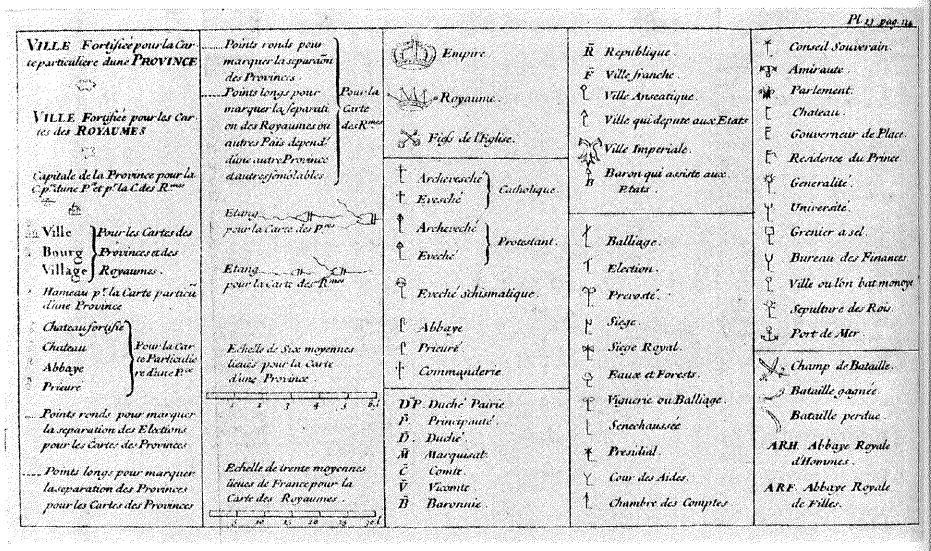


Figure 5. Social hierarchies confirmed in cartographic signs: Plate 14 from M. Buchotte, *Les Règles du dessein et du lavis* (Paris, 1721). By permission of the British Library (Printed Books, 57.c.21).

that of the ubiquity of the church. Whether in "infidel" territory held by the Turk, in lands under the sway of the Papacy, in areas dominated by protestants in general, or by particular sects such as the Hussites, maps communicated the extensiveness of the temporal estate within the spiritual landscape. As a secondary message, not only do these maps heighten the perception of the power of the church as an institution within society as a whole, but they also record the spatial hierarchies and conflicting denominations within the church itself. On the former point, we may note that on Boazio's map of Ireland (1599), an exaggerated pictorial sign for "a Bishopes towne" is placed at the head of its key,[83] just as on the regional maps of Reformation England the signs for church towers and spires often rose far above the requirement of a notional vertical scale. On the matter of hierarchy, individual signs for archbishoprics and bishoprics, in arrays of single or double crosses, or croziers, mitres, and variations in ecclesiastical headgear, testify to the social organization of religion.[84] Here again, the selective magnifications of cartographic signs were closely linked to the shifting allegiances of opposing faiths. They survive as expressions of the religious battlegrounds of early modern Europe.

But if map signs sometimes reacted to changing religious circumstances they also tended to favor the status quo, legitimizing the hierarchies established on earlier maps. They were a socially conservative vocabulary. In France, for example, map makers, as servants of the crown, inscribed images as a form of state propaganda, emphasizing the administrative mechanisms of its centralized bureaucracy and depicting aspects of the legal code of the *ancien régime.*[85] In 1721, when Bouchotte codified the signs to be used on regional maps (*cartes particulières*), for the territories which gave holders their titles, no less than seven of these are listed (*Duché Pairie, Principauté, Duché, Marquisat, Comté, Vîcomté, Baronnie*) as well as five ecclesiastical ranks (archbishopric, bishopric, abbey, priory, *commanderie*).[86]

The Cartographic Symbolism of Power

> The earth is a place on which England is found,
> And you find it however you twirl the globe round;
> For the spots are all red and the rest is all grey,
> And that is the meaning of Empire Day.
>
> —G. K. Chesterton, "Songs of Education: 11 Geography,"
> *The Collected Poems of G. K. Chesterton*

In the articulation of power the symbolic level is often paramount in cartographic communication and it is in this mode that maps are at their most rhetorical and persuasive. We may consider the symbolic significance of the group of maps found within paintings, where maps are *embedded in the discourse of the painting.* Alternatively we may assess how artistic emblems—which may not be cartographic in character but whose meaning can be iconographically identified from a wider repertoire of images within a culture—function as signs in decorative maps where they are *embedded in the discourse of the map.* Having linked the meaning of particular emblems with the territory represented on the map, we may consider how nondecorative maps may equally symbolize cultural and political values.

Maps in Painting

The use by artists of globes and maps as emblems with their own specific symbolism can be traced back to the classical world. As a politically laden sign

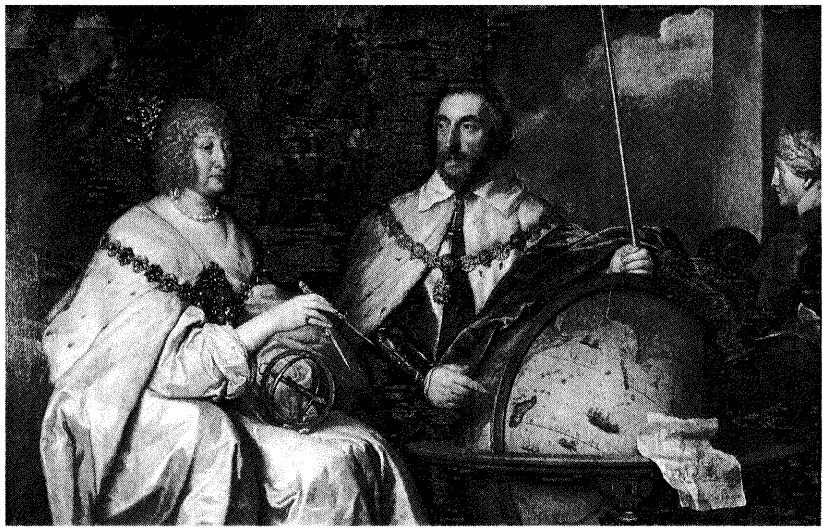


Figure 6. The map as territorial symbol: in this painting of Thomas, 14th Earl of Arundel, and his wife Alethea (by or after Van Dyck, ca. 1635), the Earl points to a colonial venture in the island of Madagascar which he was promoting. Reproduced by kind permission of His Grace The Duke of Norfolk. Photograph, Courtauld Institute of Art.

the globe or orb has frequently symbolized sovereignty over the world.[87] From Roman times onwards—on coins and in manuscripts—a globe or orb was held in the hand of an emperor or king. In the Christian era, now surmounted by a cross, the orb became one of the insignia of the Holy Roman Emperors and, in religious painting, it was frequently depicted held by Christ as *Salvator Mundi,* or by God the Father as *Creator Mundi.*[88] Such meanings were carried forward in the arts of the Renaissance. By the sixteenth century, globes, which like maps had become more commonplace in a print culture,[89] were now shown as part of the regalia of authority in portraits of kings, ambassadors, statesmen, and nobles. But now they were primarily intended to convey the extent of the territorial powers, ambitions, and enterprises of their bearers. These paintings proclaimed the divine right of political control, the emblem of the globe indicating the worldwide scale on which it could be exercised and for which it was desired.[90]

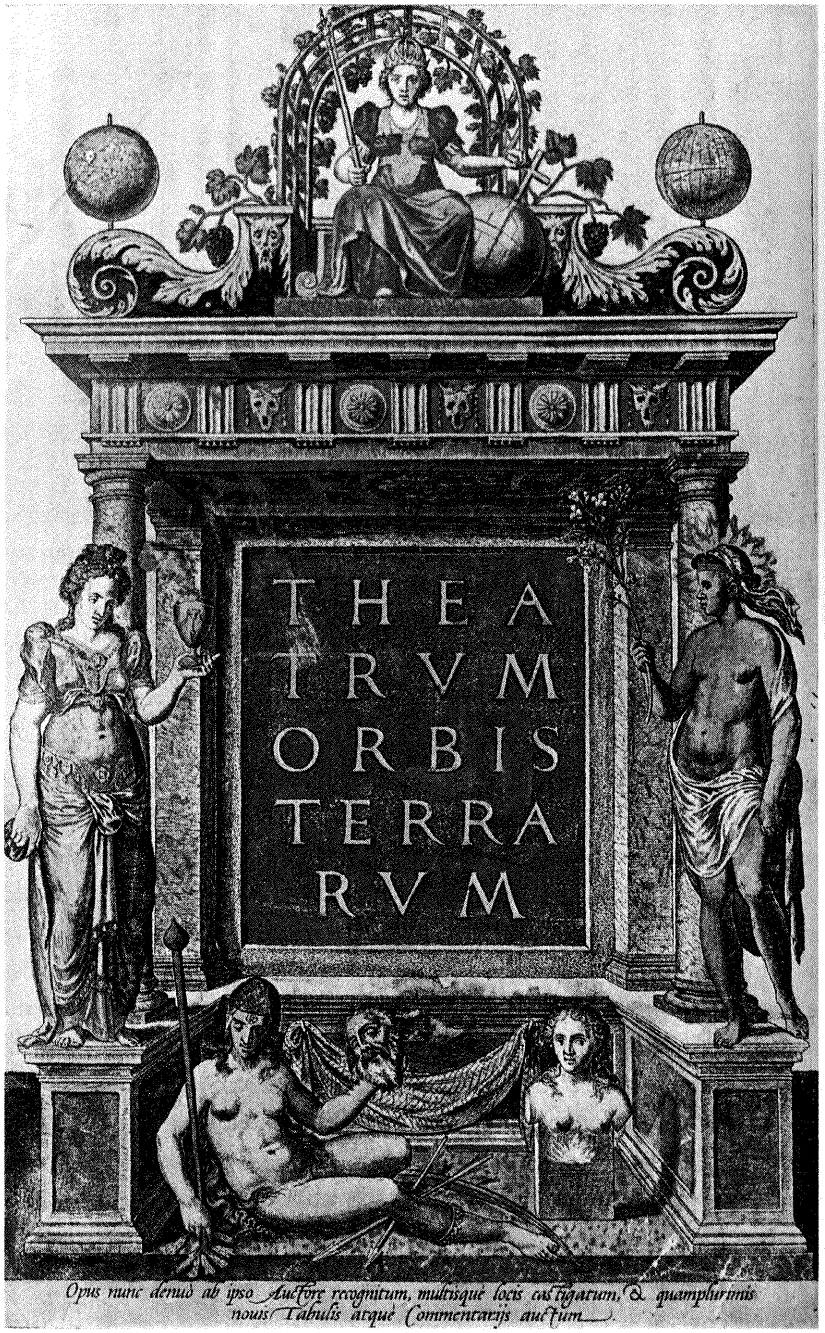
Maps in painting have functioned as territorial symbols. The map mural cycles of the Italian Renaissance, for example, may be interpreted as visual

summa of contemporary knowledge, power, and prestige, some of it religious but most of it secular.[91] In portraits of emperors, monarchs, statesmen, general, and popes, maps also appear as a graphic shorthand for the social and territorial power they were expected to wield. It is apt that Elizabeth I stands on a map of sixteenth-century England; that Louis XIV is portrayed being presented with a map of his kingdom by Cassini;[92] that Pope Pius IV views the survey and draining of the Pontine marshes;[93] and that Napoleon is frequently shown with maps in his possession, whether on horseback, when campaigning, or seated and discussing proposed or achieved conquest.[94] Even when the medium changes from paint to photography and film the potent symbolism of the map remains, as the makers of films about Napoleon or Hitler readily grasped.[95] In newspapers, on television screens, and in innumerable political cartoons, military leaders are frequently shown in front of maps to confirm or reassure their viewers about the writ of power over the territory in the map. Map motifs continue to be accepted as geopolitical signs in contemporary society.

The Ideology of Cartographic Decoration

Since the Renaissance, map images have rarely stood alone as discrete geographical statements, but have been accompanied by a wide range of decorative emblems.[96] From Jonathan Swift onwards these elements have been dismissed as largely incidental to the purposes of cartographic communication.[97] Decorative title pages, lettering, cartouches, vignettes, dedications, compass roses, and borders, all of which may incorporate motifs from the wider vocabulary of artistic expression, helped to strengthen and focus the political meanings of the maps on which they appeared. Viewed thus, the notion of cartographic decoration as a marginal exercise in aesthetics is superannuated.

Such a symbolic role for decoration can be traced through much of the history of European cartography. The frontispieces and title pages of many atlases, for example, explicitly define by means of widely understood emblems both the ideological significance and the practical scope of the maps they contain.[98] Monumental arches are an expression of power; the globe and the armillary sphere are associated with royal dedications; portraits of kings and queens and depictions of royal coats of arms are incorporated into the design; royal emblems such as the fleur-de-lis or the imperial eagle also triggered



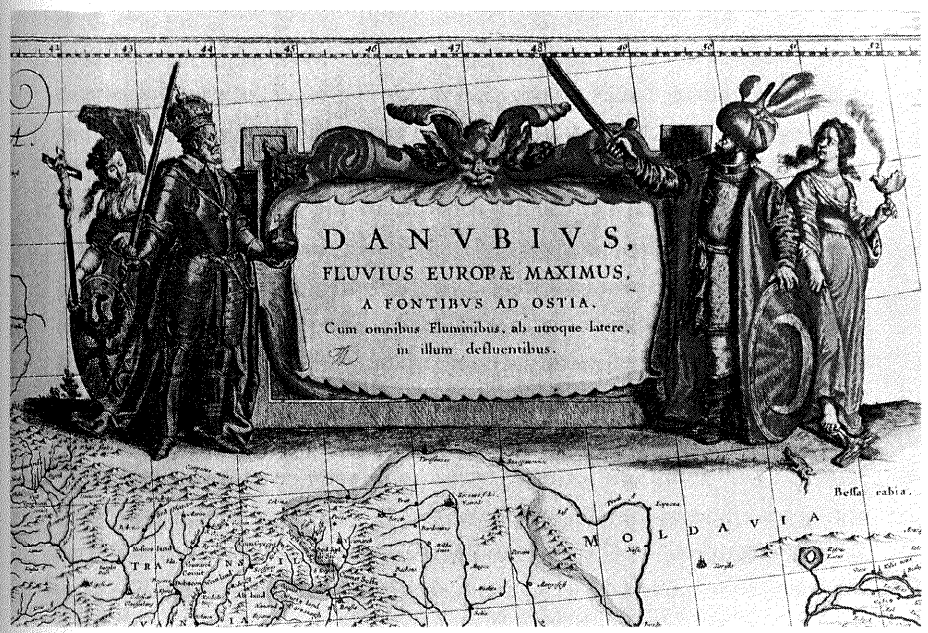


Figure 8. Religious and territorial conflict is epitomized in the cartouche to the map of the Danube in *Mayor o Geographia Blaviana,* vol. 3: *Alemania* (Amsterdam, 1662). Here, the Holy Roman Emperor (left), vested with emblems of power and the Christian faith, confronts the infidel Sultan, enemy of Christendom and spoiler of the cross. From the American Geographical Society Collection, University of Wisconsin-Milwaukee Library.

political as well as more mundane geographical thoughts about the space mapped. The figures most frequently personified are those of nobles, bishops, wealthy merchants, and gentry. On English estate maps, microcosmic symbols of landed wealth, it is the coats of arms, the country house, and the hunting activity of the proprietors which are represented.[99] To own the map was to own the land.

In atlases and wall maps decoration serves to symbolize the acquisition of overseas territory. European navigators—portrayed with their cartographic

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Figure 7. Atlas title page as geopolitical affirmation: in that of the 1573 edition of Abraham Ortelius's *Theatrum Orbis Terrarum,* Europe, personified as ruler of the world, is enthroned above the other three continents. From the American Geographical Society Collection, University of Wisconsin-Milwaukee Library.

trade symbol of compasses or dividers in hand[100]—pore earnestly over *terrae incognitae* as if already grasping them before their acts of "discovery," conquest, exploration, and exploitation have begun. Indeed, it is on the maps of these overseas empires that we find some of the most striking examples of ideological reinforcement through decoration. Whether we are looking at the French explorer's maps of South America in the sixteenth century[101] or nineteenth-century British maps of African territories, decoration plays a part in attaching a series of racial stereotypes and prejudices to the areas being represented. This is manifestly so with Africa. The decoration on maps produced in Europe disseminated the image of the Dark Continent. Some of the motifs employed suggest that Europeans found it hard to accept that African humanity *was* different. Thus, in the margins of many maps African faces stare out with European features. African men were given "ideal" physiques and poses found in the iconography of figures in classical Greece and Rome; and African rulers—in obedience to the assumption that the political systems of Europe were universal—were usually depicted on maps as "kings."

In other cases the symbols of "otherness" assumed the form of a bizarre racism. Natives are shown riding an ostrich or a crocodile, engaged in cannibal practices, located in captions as "wild men," or, as on one French map of the eighteenth century, include "a race of men and women with tails." Female sexuality in depictions of African women and allegories for America and the other continents is often explicit for the benefit of male-dominated European societies.[102] Nor are the symbols of European power ever far from African space. European ships, castles, forts, and soldierly figures in European uniforms are deployed on maps in coastal regions; African "kings" are subject to European authority; and allegorical angels, the Bible, or the cross, bring to the "barbarous" Africans the benefits of Christianity as part of a colonial package of enlightenment. Sometimes, too, cartouches and vignettes symbolize the colonial authority of individual nations: on a French map of 1708, black Africans are shown with a lion below the arms of France.[103]

Cartographic "Fact" as Symbol

It is a short step to move back from these examples of artistic expression to consider another aspect of "real" maps. Having viewed maps in metaphorical contexts, it is easier to realize how a map which lacks any decorative features

or even caption and explanation can nevertheless stand on its own as a symbol of political authority. Such maps are characterized by a "symbolic realism," so that what appears at first sight to be cartographic "fact" may also be a cartographic symbol. It is this duality of the map which encompasses much cartographic discourse and is a principal reason why maps so often constitute a political act or statement.

Once the ubiquity of symbolism is acknowledged, the traditional discontinuity accepted by map historians, between a "decorative" phase and a "scientific" phase of mapping, can be recognized as a myth.[104] Far from being incompatible with symbolic power, more precise measurement intensified it. Accuracy became a new talisman of authority. For example, an accurate outline map of a nation, such as Cassini provided for Louis XIV, was no less a patriotic allegory than an inaccurate one, while the "plain" maps of the Holy Land included in Protestant Bibles in the sixteenth century, in part to validate the literal truth of the text, were as much an essay in sacred symbolism as were more pictorial representations of the region.[105]

These are not exceptional examples of the historical role of measured maps in the making of myth and tradition.[106] Estate maps, though derived from instrumental survey, symbolized a social structure based on landed property; county and regional maps, though founded on triangulation, articulated local values and rights; maps of nation-states, though constructed along arcs of the meridian, were still a symbolic shorthand for a complex of nationalist ideas; world maps, though increasingly drawn on mathematically defined projections, nevertheless gave a spiralling twist to the manifest destiny of European overseas conquest and colonization. Even celestial maps, though observed with ever more powerful telescopes, contained images of constellations which sensed the religious wars and the political dynasties of the territorial world.[107] It is premature to suggest that within almost every map there is a political symbol but at least there appears to be a prima facie case for such a generalization.

Conclusion: Cartographic Discourse and Ideology

I have sought to show how a history of maps, in common with that of other culture symbols, may be interpreted as a form of discourse. While theoretical insights may be derived, for example, from literary criticism, art history, and sociology, we still have to grapple with maps as unique systems of signs, whose

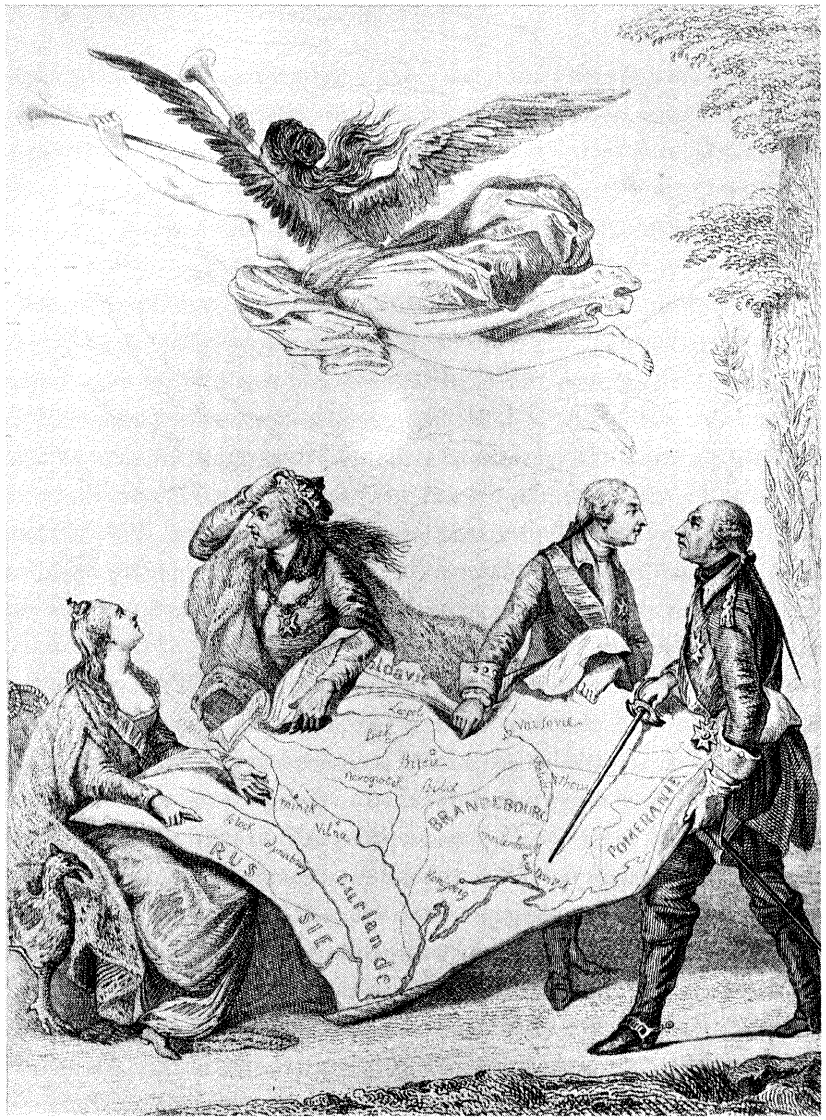

Figure 9. Maps came to serve as surrogate images for the nation-state itself. In this engraving from *The Polish Campaign* (vol. 1, London, 1863), the partition of Poland in 1772 is signified by the tearing of the map. The act is witnessed with distress by its onlookers (from left: Catherine the Great, Empress Maria Theresa, Joseph II of Austria, and Frederick II of Prussia), while an angel, representing the Catholic Church, turns away in horror and sounds a trumpet in alarm. From the American Geographical Society Collection, University of Wisconsin-Milwaukee Library.

codes may be at once iconic, linguistic, numerical, and temporal, and as a spatial form of knowledge. It has not proved difficult to make a general case for the mediating role of maps in political thought and action nor to glimpse their power effects. Through both their content and their modes of representation, the making and using of maps has been pervaded by ideology. Yet these mechanisms can only be understood in specific historical situations. The concluding generalizations must accordingly be read as preliminary ideas for a wider investigation.

The way in which maps have become part of a wider political sign system has been largely directed by their associations with elite or powerful groups and individuals and this has promoted an uneven dialogue through maps. The ideological arrows have tended to fly largely in one direction, from the powerful to the weaker in society. The social history of maps, unlike that of literature, art, or music, appears to have few genuinely popular, alternative, or subversive modes of expression. Maps are preeminently a language of power, not of protest. Though we have entered the age of mass communication by maps, the means of cartographic production, whether commercial or official, is still largely controlled by dominant groups. Indeed, computer technology has increased this concentration of media power. Cartography remains a teleological discourse, reifying power, reinforcing the status quo, and freezing social interaction within charted lines.[108]

The cartographic processes by which power is enforced, reproduced, reinforced, and stereotyped consist of both deliberate and "practical" acts of surveillance and less conscious cognitive adjustments by map makers and map users to dominant values and beliefs. The practical actions undertaken with maps: warfare, boundary making, propaganda, or the preservation of law and order, are documented throughout the history of maps. On the other hand, the undeclared processes of domination through maps are more subtle and elusive. These provide the "hidden rules" of cartographic discourse whose contours can be traced in the subliminal geometries, the silences, and the representational hierarchies of maps. The influence of the map is channeled as much through its representational force as a symbol as through its overt representations. The iconology of the map in the symbolic treatment of power is a neglected aspect of cartographic history. In grasping its importance we move away from a history of maps as a record of the cartographer's intention and technical acts to one which locates the cartographic image in a social world.

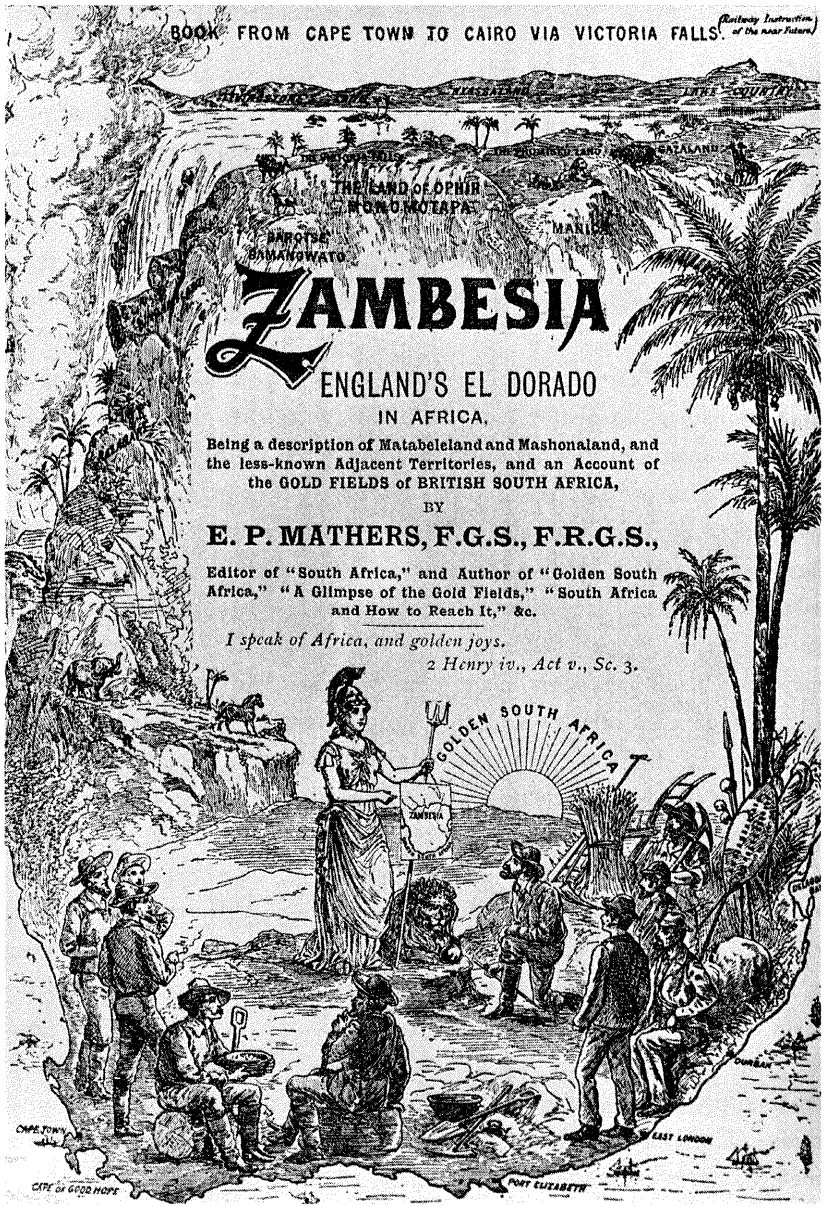

Figure 10. Title page from *Zambesia, England's El Dorado in Africa* (London, 1891). The scene is set on an outline map of southern Africa. Britannia, displaying a map of Zambesia, entices white colonists to take advantage of the economic wealth of the country while the indigenous African population is excluded from the stage. From the American Geographical Society Collection, University of Wisconsin-Milwaukee Library.

Maps as an impersonal type of knowledge tend to "desocialize" the territory they represent. They foster the notion of a socially empty space. The abstract quality of the map, embodied as much in the lines of a fifteenth-century Ptolemaic projection as in the contemporary images of computer cartography, lessens the burden of conscience about people in the landscape. Decisions about the exercise of power are removed from the realm of immediate face-to-face contacts.

These ideas remain to be explored in specific historical contexts. Like the historian, the map maker has always played a rhetorical role in defining the configurations of power in society as well as recording their manifestations in the visible landscape. Any cartographic history which ignores the political significance of representation relegates itself to an "ahistorical" history.