Geographers' relations with maps have a long story of attraction and repulsion. The map has always fascinated Geographers (even before the institutionalization of the discipline) as a powerful tool, able to demarcate territories, to produce different visions of them and to transform them by the actions they may cause or influence. Sometimes for strategic reasons Geographers have also denigrated cartography as a secondary and technical form of knowledge, a tool merely for understanding and representing spaces. At the present time the production of maps is becoming at the same time easier (because of the technological advances available today for making maps) and more complex (because of the high complexity of spatial contemporary dynamics). Anyone can buy software and make his/her own maps and those maps can be constantly updated. If one can visualize them from different points of view (adding or removing layers of data and changing combinations); then the delineated territories are not as stable as they were in the past. Spaces, networks and borders are submitted to multiple rapid social processes at different scales and maps show their limits representing this complexity.

The existing research and reflections about maps and cartography can roughly be divided into two groups. On one hand, is the historical enquiry about the role of maps: David Woodward, Franco Farinelli and Christian Jacob are three notable examples of this historical effort. On the other hand, there are major contributions concerned by the graphic semiology and semiotic of maps: Emanuela Casti or Jacques Bertin contributed to the explanations of what maps show and how they produce spatial knowledge. In a different way both these traditions are interested in the links between maps and politics at the local, national or international levels. The originality of this book is certainly not in underlining the central role played by maps in building empires: nevertheless, *A History of Spaces* brings something unquestionably new in the way geographers study maps and the processes of map-making and map-using. Novelties exist on at least three levels: the most visible aspect is the capacity to cross a geographical analysis with a deep philosophical background; John Pickles does not limit his views to conventional mapping but is concerned also with cyber-maps and digital spatial representations; lastly the author suggests an exciting intellectual and scientific challenge for future practices of mapping.

A diversity of approaches in his intellectual background gives Pickles a unique perspective by combining a deep philosophical interest, an opening to Western European classical knowledge and to contemporary scientific productions, a geographical approach to globalization issues and also to post-communist fragmentation in Eastern Europe, environmental concerns, African experience and an investigation of spatial consequences of technological changes. John Pickles can be broadly defined as a cultural and social geographer, interested in political and economic processes investing territories and places,

with an approach certainly influenced by Lefebvre. Philosophically he is close to the phenomenology of Althusser but also to Deleuze.

A History of Spaces is certainly about geography and maps, but it is mainly a questioning of the processes of map-making and of map-using issues, the dynamics of production being more important than the result itself. If one may be tempted to state that the histories of spaces are limited in this book, then the social and spatial aspects linked to cartography are constantly present. The text is divided into five parts. After an introduction, the second part focuses on the deconstruction of maps, in a double technical and social sense: contesting the crisis of representation it criticizes cartographic reason and taking into account the social practices it develops a situated pragmatic. The third part is about mapping and political territories in the modern period and it introduces the following part, about cyberempires in the contemporary digital maps. The last part, the fifth, discusses the countermapping and the maps of future.

The 233 pages of this book present an important number of figures, 46 black and white illustrations more precisely. But contrary to what one can expect in a book about mapping and spaces, the majority of these figures are drawings (24). With the reproduction of recent and old maps one is able to find also paintings and pictures. In spite of the variety of illustrations and of their importance in the text, there is no color in the book, except for the monochromatic blue cover, the image representing a French painting showing the attempt to adjust the technique of perspective. Maps, then, are not always the most efficient tool for representing spaces.

What is geography if it is not the drawing and interpreting of a line? This is the question developed as an introduction in Part I. From its Greek etymology, *geo-graphy* indicates the drawing of the world, but for the author this action of delimitation creates new objects. Following Jean Baudrillard, for Pickles (from Part I and throughout the entire book) maps precede territory; they inscribe boundaries and construct objects that in turn become our realities: instead of representing the territory, they produce it. Map-making and map-using are described as individual and social processes at the same time: the production of maps is not only a technical act, but above all an interpretative action, in which the result conveys also the author's intentions, conditions and values. Nevertheless, maps are made because of the needs of particular social situations, to fulfil a particular action (Part III gives some political and economic examples).

From this perspective the technical, social and spatial changes affecting cartography cannot be reduced to the supposed 'crisis of representation'. This expression (questioned in Part II) is for the author a way to express the need for a debate about the ethics of practices and

cartographic goals. As the crisis of representation develops, the recent technological innovations are more a way to interrogate future social transformations than an object of study. New technologies of mapping and new uses for maps have accompanied the reworking and recoding of social life. Consumers for these new products and practices have been produced and new mapping metaphors have been deployed to promote the penetration of these technologies into everyday life. With imaging and visualizing technologies, the goal of analytical abstraction and purification can be accomplished in ways that create abstract spaces of transparent objects.

We have the tools for rendering the world-as-picture in the 21<sup>st</sup> century, but the territories, submitted to globalization, are not as easily marked and separated as in the past. Globalization challenges how we map the world at any scale, but particularly it calls for rethinking theory and methods about 'globalized sites'. John Pickles notices that we need new cartographies, carrying new pragmatics of map-making and map using. These new cartographies might produce mappings that speak their situated and selective interests and that record their metadata and political commitments. But these cartographies also need a new openness for producing dialectical, dynamic and metaphorical images; they must be able to integrate rhizomatic spaces (rhizome being used according to Deleuze and Guattari), between local and global, concrete and abstract (Deleuze and Guattari, 1983), by the process that Felix Guattari calls the fabrication of individual and collective assemblages of enunciation.

At the end of the book Pickles suggests an interesting way to work on a new kind of cartography. 'It may be possible to develop new cartographies and geographies only by changing the way we think about the cartographies we have' (p. 194). For the author the technology is just an input for future changes: map-making and map-using processes are more deeply transformed by the social and spatial dynamics. Isn't that an interesting lesson for the actual GIS concerns about production, use and limits of this technology'

But the entire book may also be interpreted as an invitation to geographers to shift their gaze from the GIS technology to the collectives involved in every particular case. 'These collectives are all alike, as I have said, in that they distribute both what will later, after stabilization, become elements of Nature and elements of the social world. No one has ever heard of a collective that did not mobilize heaven and earth in its composition, along with bodies and souls, property and laws, gods and ancestors, powers and beliefs, beasts and fictional beings' (Latour, 1993, p. 107). GIS permit to visualize and study collectives of humans and non-humans: for the writer of these lines the new geographies mentioned by Pickles are precisely the geography of these collectives (linked to the new cartographies). This alternative mapping, or counter-mapping, is a public participation in the mapping

process, where the public is not only human, but constituted by collectives.

John Pickles, A History of Spaces. Cartographic reason, mapping and the geo-coded world, Routledge, London and New York, 2003. 233 pages. £21.99 Paperback, £80.00 Hardback.