

Views on the Globe

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Introduction

My introduction will be short. I will address the question of the aerial view from the perspective of geography and cartography. The position which consists in observing the earth from above is very old in geography. Yet we should also add that this view from above has been identified in geography - from the very beginning, that is, from Ptolemy - with the view of the map of the world or of the artificial globe. The map and the “artificial” globe are substitutes for a direct view of the “natural” globe, which is thought to be impossible to the human eye. The aerial view and the view of the map are therefore often confused. It is this ambiguity between the object (the earth) and its representation (the map or the globe) that I would like to discuss and illustrate here. I'll take three examples, chosen from different periods in the history of geography: I will focus 1) on the relationship between the aerial view and philosophical thought; 2) on the question of the geographical imagination; and 3) on the view from the airplane.

1) Philosophical Contemplation

The aerial view is originally a philosophical theme (ILLUSTRATION 1: RECLUS). Among the spiritual exercises practised in ancient schools of philosophy, the notion of a look cast towards the earth from above held a significant position. This kind

of look effectively enables two accomplishments: on the one hand, a kind of spiritual tranquillity and joy through the contemplation of the immensity and order of the cosmos, and on the other, an objective judgement, because detached and far from earthly concerns, of human things brought into their proper perspective - very small indeed when compared with the immensity of the world. A dual teaching, here, as a result: that of the size and order of the world, and that of the relativity of human things. These two aspects constitute the philosophical notion of generosity of spirit (*grandeur d'âme*).

This theme is found for the first time in Plato, where the dual teaching takes the form of a double view, on one part upwards, that is towards the cosmos, and on the other, downwards, that is towards the earth.

Generosity of spirit implies a conversion of the look. Among the sciences, astronomy makes this conversion possible, because it leads the eye to see the World as it were from an overhanging point of view and achieve a vision of the smallness of the human earth both in time and space. This theme was strongly developed by Markus Aurelius. It is found also in Cicero's *Dream of Scipio* (*The Republic*, VI) who, through the intermediary of Macrobius's commentary, extends across the Middle Ages up to the Renaissance.

In mediaeval Christian cartography, we find development of this mechanism. Thus the *mappa mundi* which features in the *Commentary on the Apocalypse* by Beatus of Libiana (8th c, AD) has a contemplative aim, analogous to an elevated observation station: "he who looks on the map in the *Commentary* sees what God alone is able to see from the heavens above", writes a commentator¹ (ILLUSTRATION 2). We can generalise this analogy between the process of perception of the *mappa mundi* and the process of contemplation.

From the 16th century on, the desire of the view from above often led to the use of material globes (or spheres) which resembled reduced models of the planet, and which enabled a virtual experience of aerial observation. The use of globes was common in early geography. Among other potential uses of globes was the metaphysical dimension. Within the context of Christian spirituality, one finds the two kinds of teaching already

¹ P. Gaultier-Dalché, "De la glose à la contemplation. Place et fonction de la carte dans les manuscrits du haut Moyen Age", *Géographie et culture. La représentation de l'espace du VI^e au XIII^e siècle*. (Aldershot : Ashgate, 1997, chap. VIII, p.752.

mentioned with respect to the look from above: contemplation of the immensity and order of the universe, and awareness of the relativity and smallness of human affairs. In this way the artificial globe initiated by geography, became both reason for and physical medium through which the concept of the view from above was expressed.

In the Christian context the use of the artificial globe has two functions. On one hand, the geographer's globe serves to provide a discourse on the order and beauty of the world: the earthly globe appears as a theatre of divine providence. On the other hand, it provides a passage from the visible towards the invisible, which since Gregory the Great has acted as one of the justifications of the use of images for meditation and devotion. Thus geography, through the intermediate of material objects (globes and maps) came to be used as a proof of the existence of God, to the extent where such material objects provided an analogon of the aerial looking towards earth. In the sixteenth and seventeenth centuries, the Jesuits also used globes in their apostolic work in China and the New World. Thus geography was put to work in the service of missionaries. In his *Ratio procurandae salutis* (1593), Antonio Possevino recommends teaching with an artificial globe in order to prove the Creator's existence to Orientals who rejected the belief. But symmetrically, treatises on cosmography also presented reflections on the smallness of the Earth. Here again the scientific and spiritual dimensions communicate. In his *Sphère du monde* (1540), Alessandro Piccolomini wanted to show, based on astronomical and mathematical reflection, "that with respect to the Sky where the stars are found, the Earth is but a point". The cosmographical argument was accompanied by an imaginary visual experience which ensured its demonstrative efficiency. We should note above all that in the context of the imaginary visual experience - which is a virtual experience - the aerial view is firstly a look which bears upon concrete objects, globes made in wood or copper, or maps of the world.

We find this same mechanism in the great map of the world produced by Abraham Ortelius, which offered at the same time an aerial view of the earth and an aid to a meditation on the immensity of the world and the smallness of human affairs by the means of philosophical texts placed all around the map (ILLUSTRATION 3: *Typus orbis terrarum* 1587).

2) Geographical Imagination

The question of the confusion between the aerial view and the view of the artificial globe is found again at a pragmatic and psychological level, that does not so much concern the *representative intrinsic truth* of cartography, but its *representative efficiency* inside the mind of those who look at it. In what way do the map and the globe *represent reality*, as it were, in the mind of the observer? How do they render *present* to the spectator the reality they designate? Teachers of geography have long been aware of this problem, and have called it *geographical imagination*.

According to Jean François, one of the most famous teacher of the Company (*La science de la géographie*, Rennes, 1652), geographical imagination is characterized by two symmetric properties.

On the one hand imagination is representation. It enables a calling-to-mind of absent realities and far-off countries. Geography makes use of various material representations as maps, globes, books, art galleries and geographical gardens. As Henri Châtelain stated with respect to cartography, “The map was not invented for study by an Angel, and to learn to know objects by ideas alone. The map is a means of help offered to the imagination by the eyes . . .”².

But the geographical imagination is on the other side an intentional movement of the mind, which takes it from representation *towards* reality, a movement which enables the mind to move from the map and the “artificial globe” towards the “natural globe”. Here imagination does not consist of summoning the real into an image, but, conversely, of transporting the image towards the real. This “transport” is made possible by means of what the Jesuit mathematicians had called “similitude”, that is to say, by the ability of the mind to move from the small to the large and the large to the small, to explore spatial scales, to perceive analogies between similar figures whatever their respective sizes. Thanks to similitude it’s possible to get an understanding of the relationship between the “artificial globe” and the “natural globe”, and it is the exploration of this similitude which

² H. Châtelain, *Atlas historique, ou nouvelle introduction à l’Histoire, à la Chronologie et à la Géographie Ancienne et Moderne, représentée dans de nouvelles Cartes où l’on remarque l’établissement des Etats et Empires du Monde, leur durée, leur chute, et leurs différents Gouvernements . . .*, Amsterdam, 1713, second edition, reviewed and corrected (first edition 1705), preface, p. 3²

is called imagination. To quote Jean François, “The artificial Globe, through its perfect similitude with the natural, greatly aids the imagination, which has merely to enlarge the dimensions of the artificial in front of his eyes and between his hands, retaining the rest, to attain the natural; since the only difference between one and the other exists in its size”.³ And as he says, in the passage from small to large, “it is simply necessary to enlarge what is seen - which the imagination is able to do”.⁴ From the large to the small, from the distant to the near, similitude allows, in the context of geographical training, the imaginary vision of realities which are inaccessible to view. Thus similitude reveals how imagination is involved in geography’s cognitive operations. Geography is a kind of knowledge whose reasoning leans on vision and imagination. Geography is a knowledge of analogy.

Imagination has a figurative power. It corresponds to the power that the mind possesses to render reality in images and to reason from those visual aids. The type of reasoning exercised by the geographer is for Jean François close to that of the architect, who “enables an enormous palace some rich Monarch might wish to be built, to be viewed by means of a tiny model”.⁵ The “pedagogical” question therefore consists of privileging the use of the geographical imagination, alone able to produce an awareness of the true size of geographical realities.

Jean François’ position on this particular point is radical in the very diversity of the figurative aids he advocates: he speaks firstly of the use of paper, but also of tapestries, paneling, walls, flower-beds, pavements, wall tiling and vaults. And within this profusion of “materials”, one should in each case create figurative spaces which have a double nature. These spaces are at the same time representations, images of a more or less extended territory, and also the territories themselves, either bigger or smaller. They are at the same time real and imaginary. They are spaces of representation and spaces where we can enter, they are ambiguous spaces where the imagination and the reality superimpose and sometimes become confused. But this ambiguity has a function: that of offering the viewer an awareness of the actual size of terrestrial realities.

³ *Ibid*, p. 38.

⁴ *Traité de la Quantité*, 3rd section, chap. IX.

⁵ *La science de la géographie*, p. 346.

(ILLUSTRATION 4 : an example of late nineteenth-century, a geographical garden, the georama Montsouris in Paris).

All this has consequences for the question of the nature of the aerial view in geography, and of the object of this view.

If we understand Jean François correctly, it is through an act of amplification on the part of the imagination that we move from model to reality, exactly as the inverse action from country to map occurs through reduction. All we do here is to apply the law of development of a series which enables one to together envisage a gallery, a garden, a book, a globe, but also *the* earthly globe. Which is to say that there is no difference in nature, but to the contrary a ontological continuity between the small artificial globe and the great natural globe, between the map and the territory, as well as between all those geographical objects listed in the series. To reduce or to enlarge consists of the same ontological order, run in opposite directions. So what is the earth and what does it mean to see the earth from above, if the great globe is nothing but an enlarged image, and the small globe, as it were, shrunken reality? The geographer works in this kind of space which allows, seemingly with ease, passage from the real to representation and from representation to the real. As if, from the point of view of producing geographical awareness, the earth was the horizon of the representation, and the representation, conversely, the bringing into being of the real earth.

3. The Airplane and the Aerial View

Yet all this changes with aviation. Photography and aviation played a decisive role in the revival of geographical practice in France in the 20th century. Vidal de la Blache, Emmanuel de Martonne, and primarily Jean Brunhes, have believed in the significance of photography's powers of witness and truth and have helped extend its use in geography, along with other tools of visualization of countries, such as the map, the perspective view and the block diagram. Nevertheless, aviation brought something radically new, which provoked among geographers a quite remarkable enthusiasm. This is simply and easily explained: far more than other iconographic documents a geographer

might use, the view from an airplane and aerial photography reveal to him the true dimensions of a landscape.

Aviation thus provides geography with the facilities for a knowledge both deeper and more complete of landscapes being observed. That is to say, with a better understanding of the shapes, scales, relationships and discontinuities which may be present in landscapes. From above, the view from a plane enables a new view, even a new way of thinking, about the earth. One of the principal advocates of the use of aerial photography in geography, Pierre Deffontaines, says this: “To a greater extent than maps or views taken from the ground, aerial photography provides an eloquent picture of the Earth. It permits an understanding of the composition of a “land” - that is to say, a landscape – by revealing the various elements from which it is formed. Discovery of the physical aspects, such as mountains, plains, shores and rivers, is astonishing. Yet it is the “human” aspect of our planet which the aerial view renders particularly remarkable. Earth, seen from the airplane, is above all a land inhabited by man, and the main problems viewed are human problems [...]. And the most remarkable transformation provoked by air travel must surely be not so much a revolution in speed but a revolution in our observation?”⁶ (ILLUSTRATION 5)

And finally, the airplane has a philosophical value: the aerial view might be seen as an argument in favor of human understanding of the history of the earthly globe. The landscape, which is a mark of humanity on the Earth, is witness to this history. Nevertheless, from this perspective, aviation, a symbol of modern technology, brings yet another virtue: the restitution of the most ancient past. Views from the airplane and aerial photography are the tools of archeology. They are the instruments of the *revelation* of invisible traces, of civilizations now gone. A whole geography of ruins exists - primarily a way of thinking about the landscape as a kind of “monumental writing” or as a palimpsest whereby the history of human grouping is almost totally established. Paul Chombart de Lauwe: “The surface of the earth today acts not only as support for human construction. In examining it closely, we see reappear, as if revealed beneath transparent tissue, the traces of man from the very first periods of history. Through the examination

⁶ P. Deffontaines, « Présentation de quatre photographies aériennes », in *Revue de géographie humaine et d'ethnologie*, 2, 1948, p.70.

of aerial documentation, we become more aware of the successive layers of civilization, the one replacing the other, and one the tributary of another”⁷. (ILLUSTRATION 6)

The view from an airplane and aerial photography restore transparency to the layers of human history which have marked the landscape and succeeded each other, and thus enable the geographer, the archeologist, or the more general observer, to rediscover and grasp in a gaze the true *depth* of the landscape. The territory is not a *tabula rasa*, we finally may see. To the contrary, it places us in relationship with historical epochs now gone.

But lastly, the aerial view teaches us something further regarding the history of the landscape: not only the aerial gaze and photography reveal the transparency of the layers of history, but they also enables the observer’s eye to grasp them *at the same time*, in the time of a single look, as photography illustrates. Everything happens as if the successive moments in history were exposed in a common present - not lifted out of history, but *all as actual the one as the other* because they are all grasped in the moment taken to observe and register. Maybe this could be the true property of the view from the airplane: to change our conception of the historical past.

⁷ *Ibid.*, p.277.