I

"For Good Is a Form of the Limited"

Pre-Modern Pictorial Space between Self-Consciousness and World Picture

Introduction

THE STORY OF THE EVOLUTION of pictorial space from the Palaeolithic period to modernity can be seen as tripartite concerning: firstly, a sharper specification of the vantage point (*from where* one sees); secondly, an expansion of the depth of field (*how far* can be seen); and finally, the identification of new subjects for depiction (*what* can be seen). As the pictorial view expands its depth of field, it encounters new motifs in a startlingly concrete sense: first the earth, then the firmament and finally the physical surroundings in their temporal and spatial infinity.

In the following three chapters I will consider the first two phases of this development: the sequence from the Palaeolithic period and on to the Middle Ages, when the depth of field expands from the purely bodily domain to a quasi-perspectival space stretching out to the sky, yet without essentially conceding to the diversity of space and time. While chapters 2 and 3 will shed light on the two first subjects relating to *what* – earth and sky – I will here chiefly focus on issues of *from where* and *how far*. This involves, not least, a concrete empirical scanning of the evolution of pictorial space, in which the various phases of depth of field are charted in broad outline. Furthermore, based on my tripartite contextual model – self-consciousness, socially-determined perception of nature, world picture – I will extract the parameters which can, in structural terms, illustrate why the evolution of pictorial space unfolds as it does.

A comparison with the socially-determined perception of nature shows, firstly, that the subjective vantage point in the image is sharpened in keeping with humans screening themselves from the wilderness: the more humankind becomes secluded in the artificial space of the city, the further the field of vision stretches. In terms

of consciousness, this can be translated structurally to the sense of 'I' – self-consciousness – developing in antagonism to the environment, be this interpreted as surrounding nature or the immediate environment of the 'I', the body. Finally, the cosmological aspect means that the heavens – the seat of spirit and consciousness – break away from the earth in parallel with the 'I' being separated from the body. In other words, the pictorial view's opening *toward* the world occurs synchronously with cosmology's opening *of* the world; and this twofold outward opening is determined by the inward formation of consciousness.

1.1 An empirical scanning of the evolution of pictorial space up until antiquity, with sociological spotlights

From the Palaeolithic period to Assyria

The West's Palaeolithic cave paintings (*c.* 30,000-10,000 BC) are as far away as imaginable from a contrapuntal pictorial view in which the observer surveys the distant environment from a well-defined viewpoint. The cave painters' repertoire of motifs comprises mobile bodies or fragments of bodies: chiefly animals, such as bison, horses, mammoths, deer, bears and ibex, but also human figures, fusions of animals and humans (presumably shamans in transformation), handprints, implements (especially weapons, such as spears and arrows) and even detached branches and plants (FIG. 1.1).[1] Even though these motifs might be portrayed with an extremely naturalistic – one is tempted to say photographic – sensitivity, with special emphasis on the clearly-defined outer contour, they often appear fragmented to a greater or lesser degree: animals' heads fade away from the neck, bodies are painted with cut-off legs, and so forth.

That this fragmentation should be interpreted as a limited focus, an ultra-low depth of field, is apparent from the observation that the image vision does not stretch to the animals' environment: the stationary landscape with mountains, rivers, trees and sky.[2] Rather than being *re*-presented in the form of a landscape in the artificial space of the image, the environment seems to be constituted by the walls of the caves themselves, the body of the earth, from which the animal images could almost be said to be born. Thus, we find numerous examples in which the inherent forms of the rock formations, such as lumps, boles, fissures and cavities, are realised as animal images through the mediation of sculpture, engraving or painting.[3] Despite his disinclination to think in historical paths, Merleau-Ponty had a fine sense of how this effect could illustrate his general belief in the close connection between paintings and their referents:

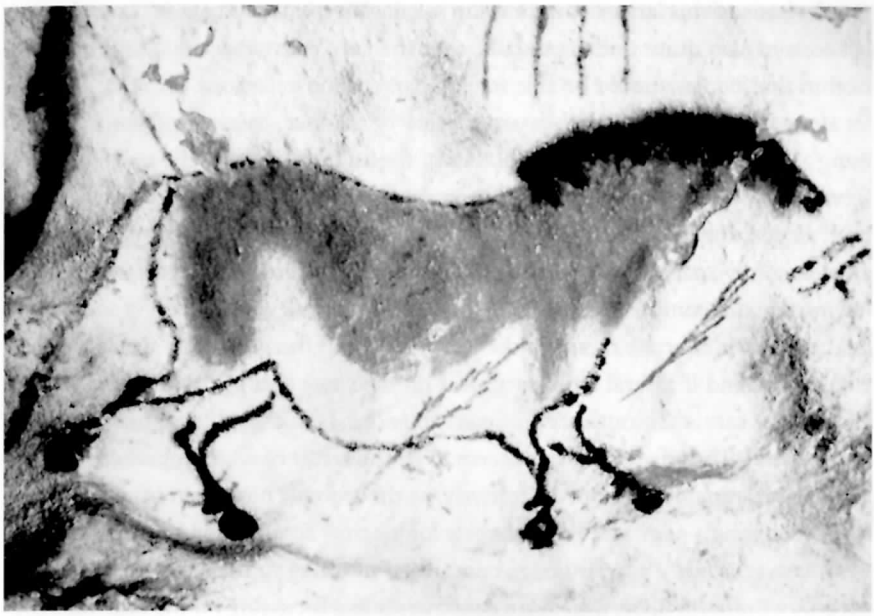


Fig. 1.1. *Horse and Branches* (*c.* 15,000-12,000 BC), cave painting. Dordogne, Lascaux cave.

> The animals painted on the walls of Lascaux are not there in the same way as the fissures and limestone formations. But they are not *elsewhere*. Pushed forward here, held back there, held up by the wall's mass they use so adroitly, they spread around the wall without ever breaking from their elusive moorings in it.[4]

The image's lack of emancipation to its own representational space independent of the rock basis is also attributable to the fact that the cave painter knew nothing of the concept of a baseline or a picture-plane setting. With a, for scholars of prehistory, groundbreaking spatial sensibility, Jean Clottes and David Lewis-Williams observe that:

> The animals appear to float in space, without support, for the lines of the ground are never depicted [...]. Outside the frames provided by the natural relief, the general absence of implantation on solid ground, and the lack of anchoring, give a strange impression of unreality, or rather that of slices of reality torn from their contexts and juxtaposed without connective elements.[5]

On the basis of this lack of coordination in relation to a represented pictorial space, it becomes also quite understandable that the cave painters were strangers to the notion that bodies should be able to form spatial constellations with one another, let alone that one body can obstruct the view of another – what I will here call 'covering'. It is only within the actual bodies of the animals, where belly and legs at the front often cover the view of the upper parts of the legs behind, and where the entire body is positioned in accordance to a visual direction – generally in profile – that an elementary spatial orientation is indicated: an outwards-turned arrangement of environmental components in relation to an observer's viewpoint.[6] As soon as we get beyond the effective radius of the individual body, however, this spatial orientation ceases, and if several animals appear on the same area of the rock wall, which is often the case, their outlines are simply blended as in a double exposure (PLATE I and FIG. I.2). The effect would not seem to be the result of any comprehensive idea, but has presumably developed additively, as the animals have been inserted one by one over a long – perhaps even extremely long – time span. Among the few scholars who have attached a proper image-conceptual meaning to this effect is the Piaget-successor Sidney J. Blatt, who again construes it as a focussing on the individual objects: "Each object is presented as an isolated experience without context or sequence. [...] The representation is a concrete, literal, life-size image with little concern other than the fundamental definition and identity of the object."[7]

Taking an approach pertaining to image semiotics rather than developmental psychology, Meyer Schapiro also spots the composition-less overlaying, and again explains it as a complementary aspect of the cave paintings' non-existent artificial image-plane:

> The artist worked then on a field with no set boundaries and thought so little of the surface as a distinct ground that he often painted his animal figure over a previously painted image without erasing the latter, as if it were invisible to the viewer.[8]

If the animals could actually be associated with a specific ritual place, much like the fireplace that is used year after year, Schapiro has consequently to draw the conclusion that this cannot be likened to the image field of later art, in which figures stand out against a contrasting background.[9]

To be sure, one problem in the reading of the Palaeolithic pictorial space is that many of the figurations are situated in an uncertain place between abstract sign, pictogram and more naturalistic forms (combinations of dots, lines, squares, etc.). However, despite the uncertainty surrounding their meaning, research consensus makes no claims here either that there is any closer specification of location than man-made structures such as hut roofs or animal traps.[10]

Fig. 1.2. *Various Animals and Bison-Man* (*c.* 15,000-12,000 BC), cave engravings. Ariège, Les Trois Frères cave.

What purpose or purposes the cave paintings served is a complex issue, which I will permit myself to look at but briefly here. Were they part of various forms of initiation rite? Did they promote the fertility of the earth, possibly through an ingenious distribution of masculine and feminine animal symbols in the caves? Did they constitute hunting magic, in which painted depiction of animals in the inner recesses of the earth led to control over them on the earth's surface? Or did they retain, as the latest prevalent theory proposes, visions of those animals into which the shamans transformed themselves during the transmigration of souls to the underworld of the mountains and the earth; hallucinations which, in trance-like states, were induced by such means as euphoriants, meditation, dance and exhaustion, and which were retained by means of pigments and engravings as the visions in the flickering glow of torchlight emerged on the rock walls, which thereby became a living membrane between this world and the hereafter?[11] According to the latter theory, the geometric patterns of the caves, the individual figurative motifs (especially animals) and the mixing of animals and people correspond to the universal human experience during the stages of trancelike states.[12] Observations of shamanist rituals during the making of rock paintings in 20th-century South Africa confirm the probability of this theory, even though the Palaeolithic focus on animals which, periodically at least, were the object of hunting – bison, horses, deer, and so forth – also make it plausible to assume that the Palaeolithic motifs, at least in part, were concerned with the magical safeguarding of food sources. Presumably their function was multi-layered and possibly involved all the aforesaid hypotheses.

Irrespective of the more specific function of the cave paintings, one thing is certain: in terms of representational space, these images mark the hesitant evolutionary beginnings where depth of field is restricted to the body and does not extend to its surroundings as these are constituted by the rock, the immediate environment. We could perhaps have expected a rudimentary representation of space at the same time as a certain eye for stationary landscape elements such as rivers or mountains, but in practice we thus already here see that representation of space and representation of landscape are inextricably linked, and that when a represented spatial plane is absent, landscape representation is also rendered impossible. The shamanist theory is particularly apt for establishing the feasibility of this absent requirement for a representational pictorial and landscape space, because in a context of shamanist hallucinations the cave walls in themselves appear as living membranes through which the visions from the underworld are born, concretised and retained as bodily shapes, which in their closed form blur the boundary between sculpture and painting.

If, by way of introduction, we begin to consider the part of my tripartite contextual model concerning the socially-determined perception of nature, we could, on

a broader plane, explain this mutual absence of space and landscape in the image by means of a structural comparison with the cave painters' peripatetic lifestyle. As hunter-gatherers who found fleeting shelter in, at most, flimsy tents and under overhanging rocks, they had but the slenderest conception of the difference between a cultural space and a wilderness – nature – at a distance from this space. They did not have any real *otherness* from which to withdraw and, as a consequence of a structural equivalence between the culture's otherness (nature) and the depth of field (representation of space and landscape), nor could they in their images, therefore, register any surroundings and arrange the figures in space-representational groups. This observation corresponds to the fact that even today the language of many tribal peoples has no word for the colour *green*.[13] The jungle by which they are surrounded is so overwhelming a reality that its colour cannot be categorised as anything special.

In accordance with this logic, an incipient depiction of spatiality and of stationary natural elements is only possible when humankind becomes settled, which leads to enclosure in a new artificial space: that of the village. The new formation occurs in a style that could serve as an illustration of Hegel's dictum that over the course of time art forms break away from their dependence on matter, namely the pictogram-like rock images which in Europe stretch all the way from the eastern Spanish group in the Mesolithic period to Bronze Age rock carvings.[14] Whereas the Palaeolithic images were chiefly painted in the innermost chambers of the cave, these paintings and engravings are often inserted in shallower caves, on rock faces or large stones. The dating of most of them is very uncertain but, in their emergent phase at least, they would seem to correspond to the changed conditions of life that came about at the end of the Ice Age. The Palaeolithic basis for survival – large quantities of wild animals – became confined when dense forests spread in the warmer climate, and humans were thus forced into a less itinerant lifestyle: first as semi-peripatetic fishermen and hunter-gatherers, later – as the population increased – also as settled farmers.[15]

In the Mesolithic cave paintings of eastern Spain (*c.* 10,000/6000-*c.* 2000 BC), we find an abstract-stylised, diagram-like idiom which, when compared to Palaeolithic naturalism and attention to the optical, could ostensibly appear to be more 'primitive'. Nonetheless, it is a fact that the now significantly reduced – and more geometric – figures start being placed in a *relationship* to one another, by means of which for the first time a space is indicated in re-presentational rather then presentational form. Even though 'double exposure' still occurs and the figures are still distributed chaotically, they are also to be found in narrative constellations: hunters hunting, warriors fighting, herdsmen driving cattle – scenes that were inconceivable in the Palaeolithic period. As probably the first scholar to interpret these images in a space-representational perspective, Blatt sums up quite explicitly: "For the first

time, humans appear in aggregate, coherent groups and an interest in the narrative depiction of an activity replaces the emphasis on the naturalistic qualities of an object in isolation."[16]

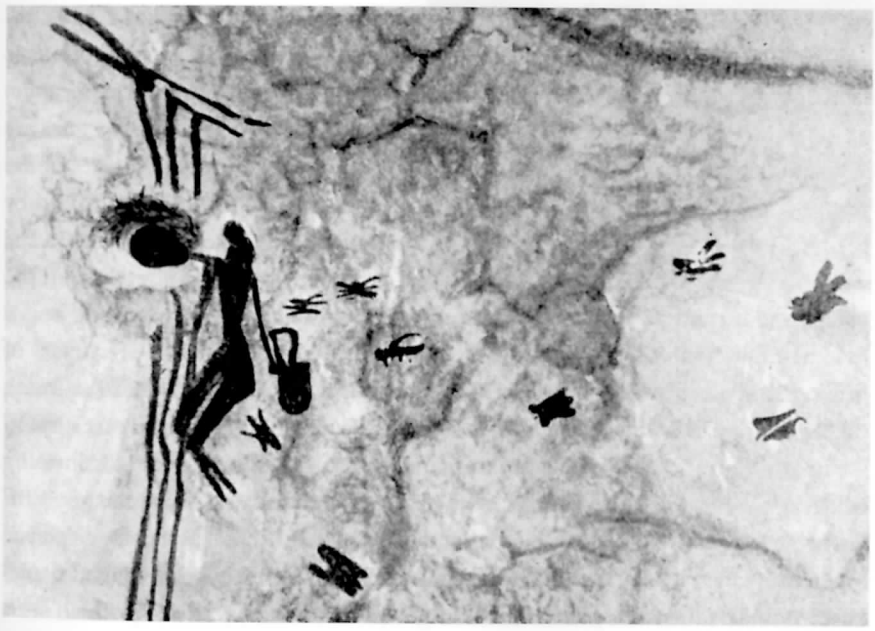
In addition to this internal spatial relationship between figures in motion, we also come across scenes in which the surrounding space – stationary nature – is involved. This can occur in rare depictions of free-standing trees (FIG. 2) or settings with figures climbing up stylised tree trunks, as is the case with the *Honey Hunter* at a hive surrounded by a swarm of bees (FIGS. 1.3-1.4). Furthermore, whole territories can be created across the otherwise bare rock surfaces when galloping game – goats, deer – leave behind winding tracks of hoof-marks (FIG. 1.5).[17] As these tracks create orientation lines in the terrain, they could be symptomatic of an incipient proprietary approach to nature, here in the form of hunting territory. As studies of contemporary African tribal communities attest, this approach certainly emerges with the establishment of settlements.[18] In comparing the Meso- and Neolithic village communities with their Palaeolithic precursors, it also has to be noted that even though the fundamental binding agent in both evolutionary stages is the clan system, the hunter-gatherer communities are characterised by minimal social inequality, whereas the later village communities display the beginning of tendencies towards stratification and social differentiation.[19] Although it can but be a mere suggestion here, this observation ventures to set the scene for an expansion of the sociological explanatory framework for the extended depth of field in the pictorial view: that it is not only connected with the initial stages of isolation in relation to the new otherness – nature – but is also associated with the beginnings of a more differentiated distribution of social roles and the accompanying intensification of self-consciousness.

However much might have happened since the Palaeolithic cave paintings, in the Mesolithic period there is still a long way to go to reach a unified pictorial space, and the symbol-like figures are applied to the rock surfaces with no regard to specific points of view. In particular, there is no distinction between the eye looking outwards in space and the eye looking from above and downwards, between what I will call *panoramic gaze* and *mapping gaze*. Thus the galloping animals are seen in profile (panoramic gaze), whereas the hoof-marks they leave are distributed across the rock face as if this were identical with the surface of the earth (mapping gaze).

A culmination of the overview provided by the mapping gaze is found in Anatolian Çatal Hüyük, one of the world's first clay-house villages, from around 6000 BC. As well as having hunting scenes in keeping with the style of the Eastern Spanish Group, this Neolithic village offers a mural painting that has achieved the status of the world's first landscape depiction (FIG. 1.6). The plaster base is now man-made, and a map-like representation of a cluster of houses is accompanied by a dotted

Fig. 1.3. *Man and Cat in Tree* (*c.* 10,000/6000-2000 BC), rock painting. Eastern Spain, Remigia, Castellón, 5th cave.

Fig. 1.4. *Honey Hunter* (*c.* 10,000/6000-2000 BC), rock painting. Valencia, Cueva de la Araña, Bicorp.



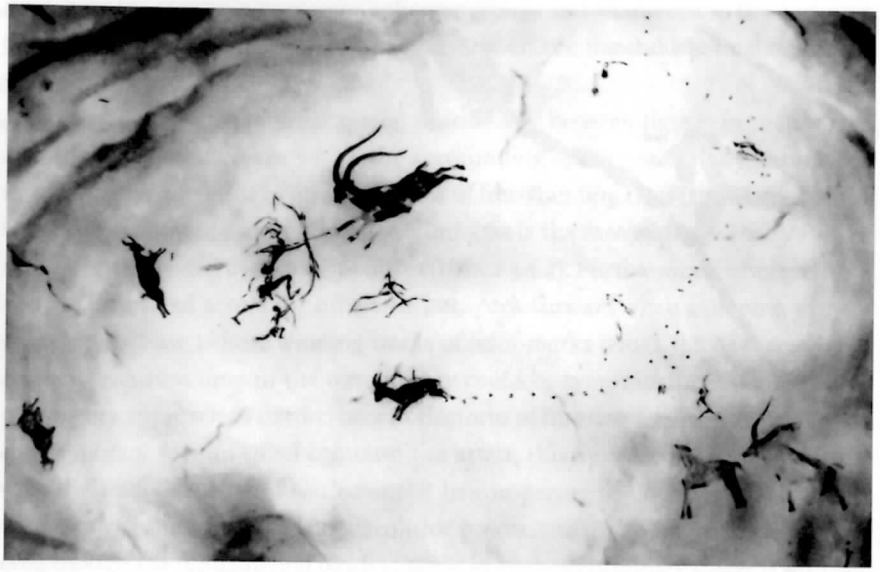


Fig. 1.5. *Galloping Goat, Hunters and Various Game*
(*c.* 10,000/6000-2000 BC), rock painting.
Eastern Spain, Remigia, Castellón, 4th cave.

rectangle with concave sides and blunt corners perforated by short lines. As a consequence of these lines, which in the upper right corner look quite explosive, it is often argued that the rectangle represents an erupting volcano. But this panoramic-based – and romantic – reading is highly improbable as, for one thing, the lines are found in all four corners of the rectangle and, for another, the concave sides of the rectangle are unlikely to refer to mountain ridges, but are presumably caused by the buckling of the foundation of the image, which also makes the houses in the village appear wavy. It is more likely that the mapping gaze could stretch from the village and out into the rest of the terrain, so what we are actually looking at is a field, the new source of food in the Neolithic period; for in the late-precursors of this cultural-evolutionary stage, the Bronze Age in Valcamonica (FIGS. 16 and 4.2), dotted rectangles still function as field symbols (further details in chapter 4).

In any case, the pictorial view has definitively turned towards the surrounding wilderness when we come to the pre-dynastic Egyptian vases of around 3200 BC (FIG. 1.7).[20] In a space still resembling that of the cave paintings – but again displayed on an artificial base, here pottery – besides boats and figures we see stylised depictions of mountains, trees and water. The geometric ornamentation by which such

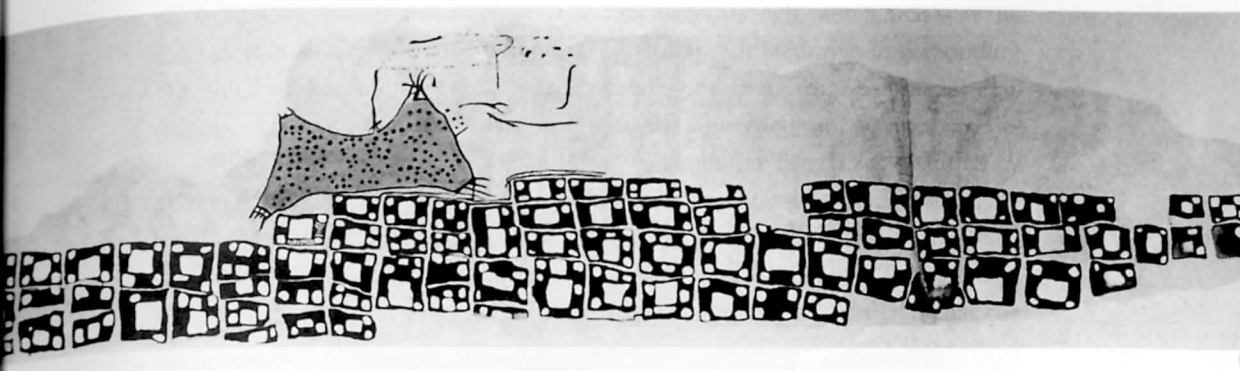


Fig. 1.6. *City and Field* (?) (*c.* 6000 BC), wall painting. Anatolia, Çatal Hüyük.

Fig. 1.7. Egyptian earthenware vase depicting a boat, mountain, trees and water (*c.* 3200 BC). Cleveland, Cleveland Museum of Art.

forms are accompanied and partially represent themselves also creates experience of structuring the imageplane. When a vase is divided into ornamental sections subordinate to its exterior contours, we are seeing a more stringent control of the image-plane than the cave paintings can boast. While the latter appear additive, an accumulation of independent figures, the details of the vase are, on the contrary, controlled by the outer framework. If the ornamental stringency of the details is now loosened in favour of a more pictorial illusionism, the step has been taken

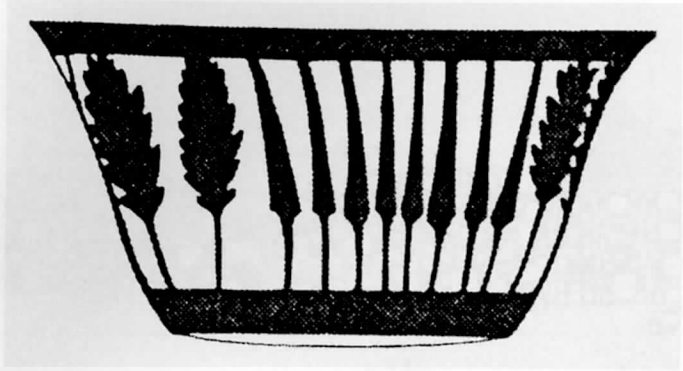


Fig. 1.8. Bowl depicting trees (4500-4000 BC).
Early Ubaid style, northern Iraq.

to the next level in the evolution of the pictorial view: the formation of a framed prospect, and thereby also of the representation of earth formations.

The step has actually already been taken in northern Iraqi bowls in the so-called Ubaid style of the period between 4500 and 4000 BC. One of the bowls has a frieze of stylised trees framed by two dark bands (FIG. 1.8); another has a Mesolithic stick figure dancing across a ground in an indefinable place between a decorative border and the soil (FIG. 1.9).[21] This framework ushers in both a tightening of the mutual relationships between the elements of the image and of their relationship to their surroundings and to the observer. Whereas the image-plane in the cave paintings was almost identical with the rock ground that accommodated the forms, it has now broken free into its own space, has become a *representation*. And, in a small way, we here see the beginning of a representation of the surrounding world as it appears from an individual direction of gaze, and consequently a frame is also required: the field of vision frame.

Even though Meyer Schapiro might have overlooked the very spatiality that hereby emerged in the framed pictorial field, his evolutionist instincts were correct when he observed that:

> The smooth prepared field is an invention of a later stage of humanity. It accompanies the development of polished tools in the Neolithic and Bronze ages and the creation of pottery and an architecture with regular courses of jointed masonry. [...] The new smoothness and closure made possible the later transparency of the picture-plane without which the representation of three-dimensional space would not have been successful.[22]

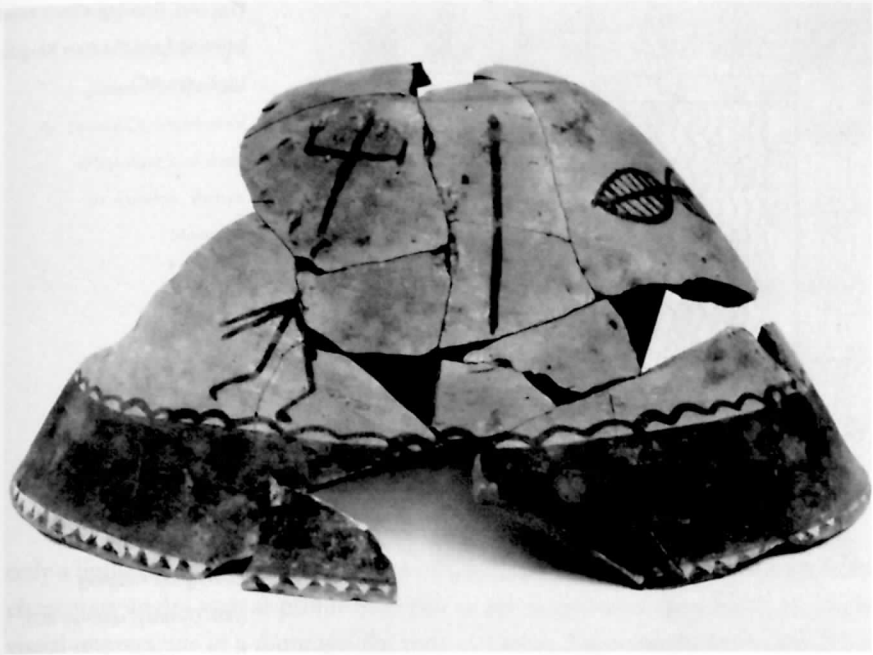


Fig. 1.9. Bowl depicting man running (4500-4000 BC). Early Ubaid style, from Tepe Gawra, northern Iraq. Baghdad, National Museum of Iraq.

My assertion that the representation of spatial depth depends on withdrawal to an artificial – urban – space, from where the otherness of nature can be observed and re-presented from a safe distance, should thus also be understood in a completely concrete technical sense, in that the picture-field – a geometrically framed and polished surface – is in itself a product of the urban culture with its regular architectural planes.

More systematic attempts at thus organising the pictorial space according to a specific framed direction of view are made by the Egyptians around 3000 BC. Egyptian images constitute a view into a space limited by a more or less implied frame. As Blatt observes, the dominant spatial regulator comprises the baseline, the representation of the soil, which presents the figures in frieze-like layers and impedes a view of more distant expanses.[23] In respect of the nearer space, depth effects are created by bodies in front concealing those behind, or – as an archaic leftover – by bodies placed over and under one another (FIG. 1). Within the bodies themselves, however, we find

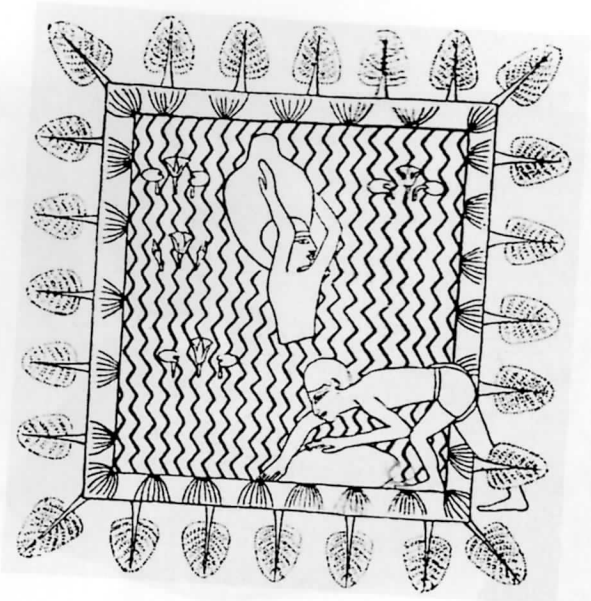


Fig. 1.10. Drawing after a tomb painting from the New Kingdom (1550-1070 BC).

Fig. 1.11. *Harvest Scenes; Nakht, Scribe of the Granaries, Watches over Clearing and Ploughing* (18th Dynasty, 1420-1411 BC), fresco. Thebes, Nakht's burial chamber.

Fig. 1.12. *Enki (Ea) Greeting Another God (Samas?) in His Apsu* (*c.* 2000 BC), impression of cylinder seal from Ur. London, British Museum.

only a limited three-dimensional sense of space, in that they are either shown from elementary angles such as profile or *en face*, or are compiled of these kinds of simple visual impressions in a montage-like style. A human figure might have eyes, chest and hands seen from the front, while head, arms and legs are shown in profile.

This dependence on simple directions of view, which presents the objects whole and without optically-conditioned distortion, also influences the depiction of landscape. Even though there might be all sorts of natural elements in the Egyptians' images – pools, seas, fields, mountains – the gaze never lifts above ground level to show something *out* in a landscape. In order to show, for example, a pool in depth-effect, the Egyptian painter will make the pool, seen from the mapping-gaze viewpoint, carry out a sort of quantum leap in a vertical direction so that it then forms the background for scenes seen in panoramic-gaze profile (FIG. 1.10). And if there are any land formations at all in Egyptian painting, apart from the flat profiles of the earth that are usually on eye-level, they will generally appear in sectional view as undulating terrain under the feet of the figures (FIG. 1.11) or placed on the baseline on a par with figures and trees.

We have to go to later Mesopotamia and the Minoan culture in the second millennium BC before land formations serve as background for figures and thus provide, for the first time, an impression of the quality of *view* out into the landscape (Mesopotamia: FIG. 1.12; Minoan culture: FIGS. 2.59 and 1.13). Even though the backgrounds – rocks, water or simply an expanse – do not in themselves reveal much about depth-effect, the figurative elements are often placed on the background in such a way that an inwards displacement in the depth corresponds to an upwards movement on the picture-plane: in other words, a primitive form of perspective. In

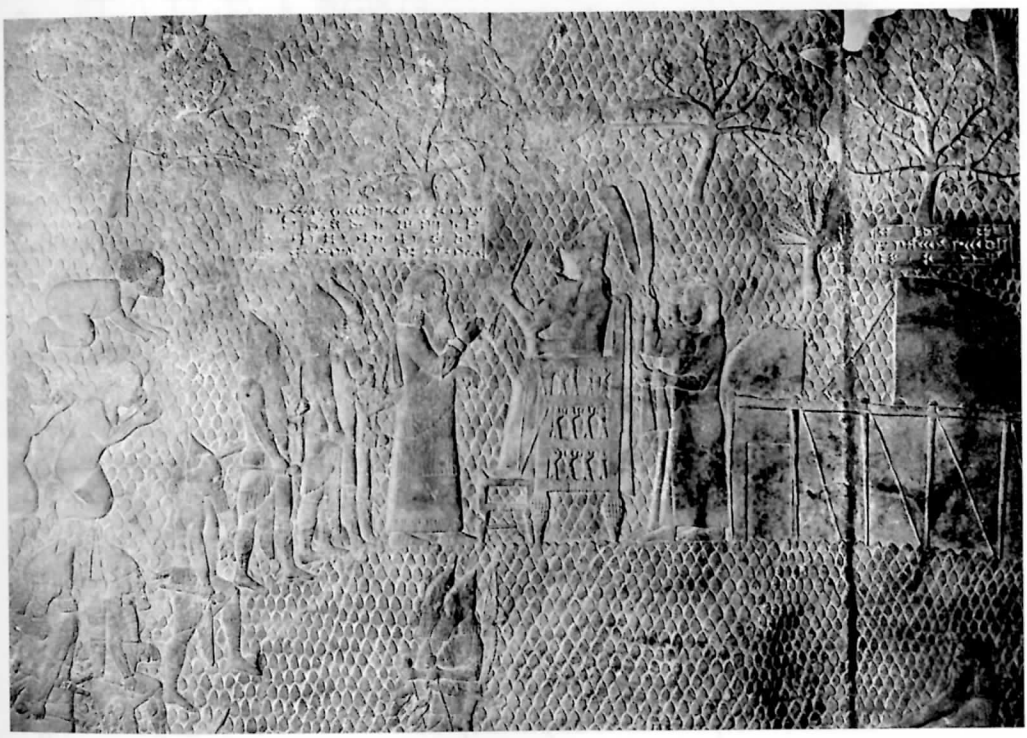
Fig. 1.13. *Bull, Tree and Rocks* (*c.* 1500 BC), painted relief (partially reconstructed). Knossos, now on the back of the West Portal.

the majority of Mesopotamian images from before 1000 BC the figures are indeed shown more *among* and *on* than *in front of* the landscape elements (FIGS. 1.14, 4.11 and 5.1), but a pioneering example such as *Naram-Sin's Victory Stela* (*c.* 2270 BC; FIG. 3) demonstrates that depth of vision exists as potential. During their victory over the Lulubi, a mountain people living in the Zagros range, the Accadian warriors are seen against a background of the mountain – the underworld mountain – they are ascending. Their goal, a cluster of stars above the mountain peak, constitutes, as we will see, the celestial power that enables the pictorial-view thus to behold figures against the background of a landscape.

In the Neo-Assyrian palace reliefs (*c.* 900-600 BC), the West's most spatially advanced images until the Greeks give them competition in the 5th century BC, such landscape formations have not just become the norm, they often usurp so much space that the figures appear insignificant in relationship to the wide landscape expanses (FIG. 1.15). At the same time, a figurative indicator of depth has been

Fig. 1.14. *Tree of Life on Mountain of Life Flanked by Rearing Mountain Goats* (*c.* 2700 BC), Accadian seal impression from Susa. Paris, Musée du Louvre.

Fig. 1.15. *Siege of Lachish: Jewish Prisoners Beseech Enthroned Sennacherib for Mercy* (*c.* 700 BC), relief from the Palace of Sennacherib, Room XXXV. London, British Museum, No. 124909.



discovered, which must be regarded as the direct precursor of perspective: the sloping line. This line denotes the withdrawal of the space towards the distance and thereby creates a new continuity between the previously separate measures: mapping-gaze overview and panoramic-gaze profile view (FIG. 1.16). And yet there are no actual converging lines, let alone reduction with distance. As a rule it is not possible to make out whether we are on a mountain slope or merely rocky ground.

If the rudimentary specifications of place in the Mesolithic and Neolithic periods – the additively placed trees, mountains and waves of water – could be explained sociologically by an incipient urban culture and an accompanying isolation from the wilderness, then the subsequent development of border-framed images – the sequence from Ubaid style baselines, on to Egypt's 'in-look' to Mesopotamia's 'outlook' – is determined by an extreme intensification of this tendency. According to sociological theories of evolution, it was in the two river valley cultures that the first actual state formation as such occurred. At this evolutionary stage – by Marx called *Asian*, by Parsons *archaic intermediate* – village-based horticulture (slash-and-burn method, no plough) has been succeeded by a hierarchical plough-using society in which land control is in the hands of a privileged urban caste of king, priests, notaries and warriors.[24] The framing of the pictorial field could in itself be regarded as an expression of the more differentiated social roles resulting from state formation. Rather than fulfilling the fluid functions of the clan, individuals now have a specific social identity. If we pose the question as to which *field* of identity the pictorial frame more specifically conveys, the answer would presumably have to be the *field* around the power elite who commissioned by far the majority of the extant images. Consequently, the enlarged space that opens up behind the frame can be regarded as an expression of this same elite's isolation from the surrounding land.

But why do the Mesopotamian images now have a wider panoramic view than the Egyptian? Sociological theories of evolution again provide material for an answer to this question. As Parsons notes, Egypt, despite its power hierarchy, would seem to have preserved a surprising number of characteristics of Neolithic and early metal-extracting village culture: a culture that persists to this day in the Shilluk tribe of the Upper Nile. As in clan society, power was still based on hereditary lines, and the classes were so inter-connected that of the Ancient Egyptian society Parsons remarks: "It was a kind of archaic socialism."[25] At the same time, the pharaoh, like the chieftain, was a deity. In comparison, the Mesopotamian city-states appear more bureaucratic and marked by an incipient rule of law which, among other things, caused a sharp polarisation between an urban-based upper class and a working rural population. In addition, their kings were no longer deities in themselves, but only servants of a correspondingly more isolated supernatural world.[26] Parsons concludes: "In sum, Mesopotamian society developed a normative order verging on the degree

Fig. 1.16. *Ashurbanipal's Capture of the City of Madaktu* (661-31 BC), drawing of relief from Nineveh. London, British Museum.

of systematization and universalism found in historic systems. [...] Mesopotamia had advanced beyond Egypt."[27]

Against the background of this sociological knowledge, it is thus quite logical that the depth of field in Mesopotamian images will reach further than the Egyptian. Because of the fact that the Mesopotamian upper classes have severed the last link with the land – the clan link that was still intact in Egypt – a *field* now emerges in which fragments of this land can form backgrounds in images. Here I can only provide a provisional conclusion, as in chapter 4 the societal backdrop to the early landscape images will be elaborated with considerations of attitudes to work.

After the Western pictorial gaze has thus become capable of looking out into a landscape, there is, on the other hand, a splitting-up of the two ways of looking,

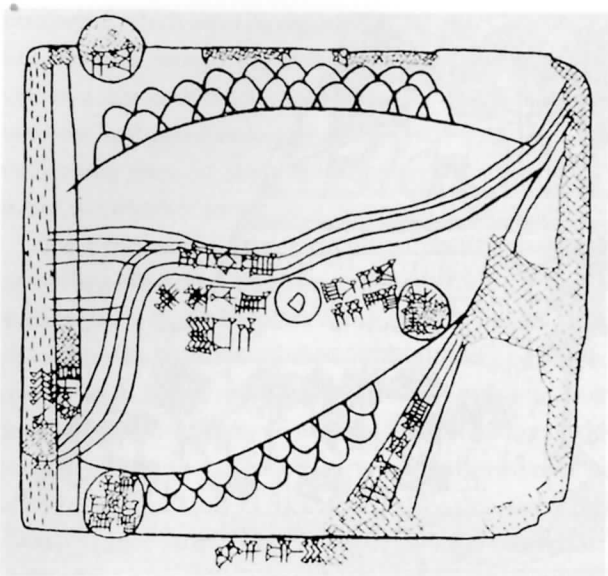


Fig. 1.17. Drawing after clay tablet with topographical map showing river valley, cities and mountains (*c.* 2500-2300 BC). From Nuzi, northern Mesopotamia.

which in the Egyptian period still thrived side by side: panoramic gaze and mapping gaze. Right up until modernity the panoramic gaze is largely reserved for 'actual' images – images of an optic-mimetic aspect – whereas the mapping gaze is left to the more pictogram-like genre, from which I have given it the name: *topographical maps*.

In the oldest surviving topographical map, a Hurritic clay tablet from Nuzi in northeastern Iraq (*c.* 2500-2300 BC; FIG. 1.17), this splitting-up is in full swing. Here two mountain ranges flank a plain traversed by a river. At least three towns, named in cuneiform, are indicated by circles.[28] Even though the more specific function of the map is unknown, it derives from a need connected with the advanced urban culture: to procure control of the rural territories. The map's area of focus is thus the same as that of the urban culture: the flat plains, which can be controlled as well as surveyed. The plain on the map is therefore a de-materialized expanse, where spatial relationships are easily estimated. The mountains, on the other hand, indicate the frontier of civilization. Rather than, like the plain, being surveyed from above, the mountains appear in their full panoramic pictorialness: a squamation-like pattern of peaks.

However, as the map has thus now become a genre separated from the actual image – a horizontal, framed gaze towards the depth – it will be the subject of a more detailed discussion in chapter 4.

Fig. 1.18. Niobid Painter, *The Argonauts with Athena and Hercules* (*c.* 450 BC), painting on calyx-crater. Paris, Musée du Louvre.

Pictorial and landscape space in classical antiquity

Foreshortening and diminution with distance, ingredients of perspective proper, depend on a more clearly defined vantage point: from the viewpoint where I am positioned, the surrounding environment seems to become smaller as it stretches out into the distance. In fact, it is this diminution due to vantage point that makes it possible to depict the faraway distance at all: distance being only made visible as a *relative* relationship between the surroundings and the observer. Conversely, the distance also reflects reciprocally on the vantage point, which can only be registered as such in light of the fact that it has a distance against which to define itself. The vantage point is just as dependent on the distance as the distance is dependent on the vantage point. This visual realisation was first tackled by the Greco-Roman culture, although this culture was not fully able to assimilate it.

A form of ontogenetic summary of the pictorial space's previous phylogenetic evolution is found in Greek vase paintings. Like Egyptian art, the black-figure vases are devoid of land formations that could serve as background scenery for the figures. Instead, the figures are solidly set on the baseline. But with the more depth-oriented red-figure vases, around 510-500 BC, land formations appear which the figures, as they do in Mesopotamia, can ascend – and enter: first dark as the background, and later, from mid-5th century BC, also light as the figures. The Niobid Painter takes up a transitional position, in that he profiles the Argonauts' location – a dark rock embankment – with a white edge (FIG. 1.18). Because the Greeks meanwhile,

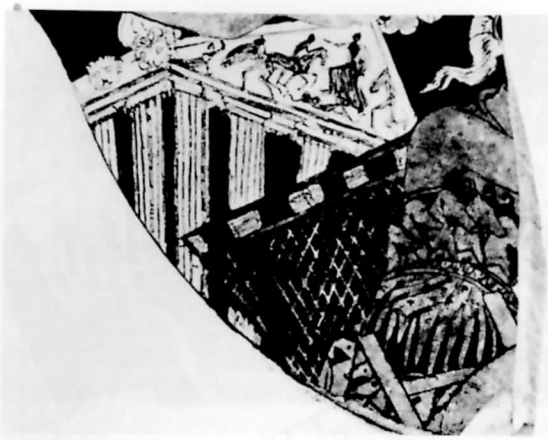


Fig. 1.19. Temple of Athena (*c.* 450-400 BC), fragment of vase. Würzburg, Universität Würzburg. Martin von Wagner Museum.

in evolutionist terms, make a fresh start – the semi-primitive Greek 'middle ages' – they also go further than their closest rivals, the Assyrians. The depth they reach in the red-figure vases constitutes the embryo of the pictorial space of modern perspective. In this 'overtaking' of the Assyrians, despite a more primitive starting point, Spengler's concept of the cyclic course of cultures is corroborated, and thus so is Elman Service's "law of evolutionary potential" (1960) mentioned earlier: the law stating that the more specialised the functions of a culture become, the poorer is its ability to develop towards a higher evolutionary stage.[29]

The depiction of actual foreshortened human bodies is, not surprisingly, found in vase paintings of the same period in which sculpture testifies to the development from the archaic to the classic style: with the emergence of red-figure vases around 510 BC. The painters themselves sensed the pioneering aspect of the new space: on an amphora showing a scene of three boldly foreshortened drinking companions (*c.* 510-500 BC; Munich), Euthymides could not resist embellishing his signature with a greeting to his rival: "as never Euphronios".[30] From the mid-5th century BC, the surrounding world in the form of furniture, carriages and architecture also began to be shown from oblique angles, which raised the problem of how lines behave vis-à-vis distance. In a vase fragment from Würzburg (*c.* 450-400 BC), for example, a temple is seen from below, its sides tilting in different directions (FIG. 1.19).

The issue of the development of perspective in antique culture is, however, somewhat complicated because as good as no monumental paintings survive until a relatively highly-developed perspective is found in the Roman era of the first century BC. Should the Romans take the credit for the development, or did they simply take over a perspective that was already advanced in Hellenistic, possibly even Greek time? Judging from the best preserved Hellenistic fresco, a somewhat

Fig. 1.20. *Hunters among Trees* (*c.* 350-300 BC), section of fresco frieze on the façade of what is known as Philip's Tomb, Vergina.

damaged hunting scene of *c.* 350-300 BC from the Macedonian kings' necropolis in Vergina (in antiquity: Aegeae), a well-developed perspective was already to be found here (FIG. 1.20). Even though the damaged state makes it difficult to decipher the spatial relationship between hunters and trees, there is at least a projection of light that would not seem so very different from the Roman sacral-idyllic paintings three centuries later. It can thus be assumed that the spatial description was almost mature at this point in time, but that it did not reach its full scope until the later Hellenistic period, *c.* 300-100 BC.[31]

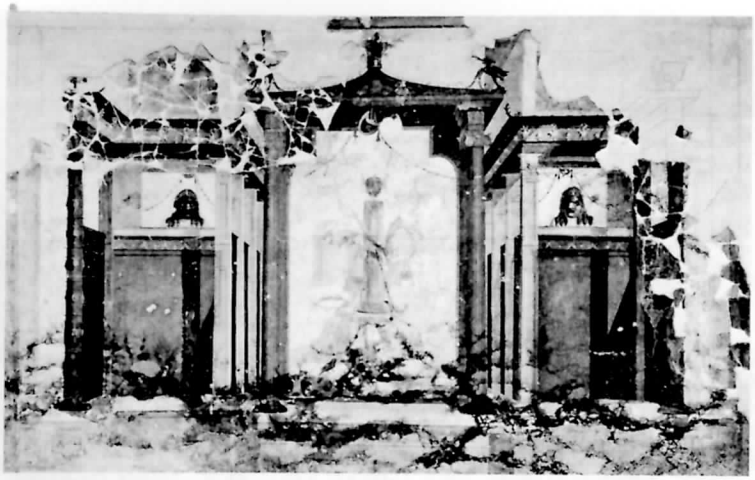


Fig. 1.21a. *Architectural Facade with Shrine* (shortly after 30 BC), fresco. Rome, Palatine Hill, House of Augustus, Room of the Masks, south wall.

That space and landscape were at least still closely-related pictorial ingredients is apparent from the way in which both are promoted in theatre stage settings. According to Vitruvius, scene-painting was introduced by one Agatharchus for a staging of an Aeschylus tragedy in 5th-century BC Athens. An account of this, written by Agatharchus, inspired the natural philosophers Democritus (*c.* 460-370 BC) and Anaxagoras (500-428 BC) to write on the same subject:

> [...] in order to show how, if a fixed centre is taken for the outward glance of the eyes and the projection of the radii, we must follow these lines in accordance with a natural law, such that from an uncertain object, uncertain images may give the appearance of buildings in the scenery of the stage, and how what is figured upon vertical and plane surfaces can seem to recede in one part and project in another.[32]

This alliance between scene-painting and perspective verged on total fusion as perspective is often called *skenographia* (Latin *scaenographia*).[33] At the same time scene-painting found a sort of host organism in non-theatre painting, for Plutarch mentions that Alcibiades, Socrates' friend, "once imprisoned the painter Agatharchus in his house until he had adorned it with paintings for him, and then dismissed his captive with a handsome present."[34] This alliance perseveres

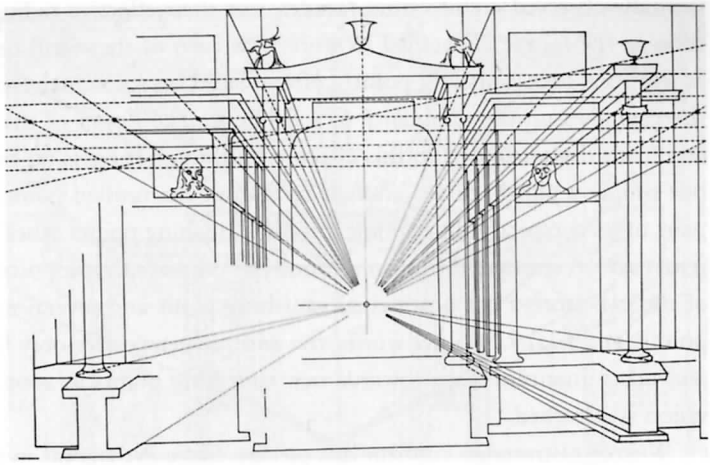


Fig. 1.21b. Lines of perspective in fig. 1.21a.

into the Roman era, where the stage types cited by Vitruvius – the tragic and comic with architecture (royal and private respectively) and the satyric with landscape[35] – permeate Roman murals. As we will see in chapter 6, it is unlikely that the quasi-autonomous landscape painting as it appears in the sacral-idyllic genre would have developed without the precursor: the landscape of satyric set pieces devoid of humans.

So what kind of perspective do we find in the Roman mural? In a number of respects one which could seem to be just as highly developed as that which dawned one-and-a-half millennia later. Within the area where perspective perhaps went furthest – paintings with illusionist stage architecture – not only are spectacular depth-effects created by converging lines, but there is also an awareness of something that resembles a modern *vanishing point*. In a sophisticated example such as the Room of the Masks in Augustus' house on the Palatine Hill (shortly after 30 BC), it is possible to draw lines from virtually all the architectural elements and see them meet at a point beautifully placed in the centre of the symmetrical structure (FIG. 1.21A). Striking examples like this have led scholars such as John White to believe that antiquity was actually in command of a perspective similar to the modern one, and that deviation from this was only due to the whims of individual artists or increasing lack of learning.[36]

Yet, as Gisela Richter observes, the problem with such a thesis is that there are *always* deviations from the individual 'vanishing points', and that these deviations enter into a pattern. Unifying vanishing points are not only a speciality of

frontally-observed architectural façades, but their effective radius terminates as soon as the façade is detailed in storeys, as each of these will be supplied with at least one new vanishing point – often placed on the same vertical axis, which thereby takes on the semblance of a fishbone. The Room of the Masks itself is an illustrative testimony to this effect: even though there is no full lower storey, but simply a plinth, this is enough to disrupt the unified point of view as two pairs of its perspective lines point towards vanishing points other than the upper (FIG. 1.21B). A stronger diffusion is found in Pompeii's Cryptoporticus, where each of the two storeys has a principal vanishing point and several minor vanishing points (FIG. 1.22).[37] In other words, the antique perspective only functions *locally* and takes quantum leaps towards new vanishing points as soon as the field of vision is stretched.

Written testimonies confirm this picture. Since Pythagoras in the 6th century BC it had been the general impression that sight was caused by the eye sending out *visual rays* towards the surrounding environment.[38] The further from the eye an object was placed, the smaller was the angle between the visual rays and thus the observer's image of the objects would be correspondingly smaller. In Euclid's *Optica* (*c.* 300 BC) we can read about this apparent reduction with distance; about lines going in an upward or downward direction; and about the empirically problematic observation that the apparent size of objects is not proportional to their distance from the eye, but rather to the angle between the upper touching visual ray and the earth plane where both the underside of the object and the eye-point are thought to be located.[39] Euclid was, however, only referring to situations in which objects are viewed head-on or in simple symmetrical arrangements, and he does not mention convergence towards points.

This type of convergence is discussed, however, by the Roman Epicurean Lucretius (d. 55 BC), who states that

> a colonnade may be of equal line from end to end and supported by columns of equal height throughout, yet, when its whole length is surveyed *from one end*, it gradually contracts into the point of a narrowing cone, completely joining roof to floor and right to left, until it has gathered all into the vanishing point of the cone. [My italics][40]

And Vitruvius: "*Scenography* (perspective) also is the shading of the *front* and the retreating sides [of a building], and the correspondence of all lines to the vanishing point, which is the centre of a circle." [My italics][41] Vitruvius is obviously referring to the same narrowing phenomenon as Lucretius, because a foreshortened cone is seen as a circle. Both writers again describe how a *single, frontally-viewed* object seems to contract towards the depth. No writer of antiquity gives an opinion on depth-effect

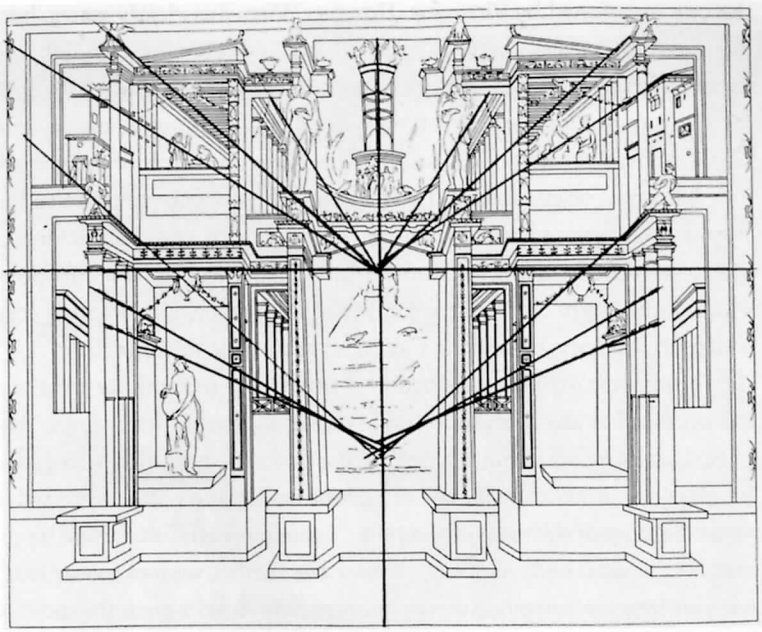


Fig. 1.22. Lines of perspective in fresco with architectural facade (c. 50 BC (?)). Pompeii, Cryptoporticus.

for a body seen obliquely from the side, or for several asymmetrically placed bodies seen at the same time, let alone for the concept of 'space in its entirety'.

We might, initially, be surprised by the *circular* form of the convergence, as strictly speaking perspective lines do not inscribe any specific form beyond the form of the object being foreshortened: a box, for example, does not become a cone but a pyramid. As I see it, the cone-formed foreshortening is not the result of a thoroughly thought-out system, but simply a manifestation of the still intuitive stage of antique perspective.[42]

In his outstanding, but also on certain issues somewhat uneven, early article "Die Perspektive als 'symbolische Form'" (1924-25), Panofsky cautiously suggests the hypothesis that Vitruvius' circle could actually be an expression of a rational perspective construction.[43] Panofsky's starting point is the previously mentioned feature of many antique pictorial spaces: that their perspective lines converge at vertical axes as in a fishbone (FIGS. 1.21A-1.21B and 1.22). Panofsky observes – albeit with some rather hazy arguments – that this kind of convergence occurs if you look at a circle whose centre is in the eye and let it cut off the visual rays. This circle ought to be

the one mentioned by Vitruvius. However, Vitruvius clearly states, both here and in reference to Greek scene-painting, that the picture lines do not move towards the eye, but back towards the depth (Panofsky was obviously not familiar with the Lucretius quotation that corroborates this).[44] In addition, antiquity knew nothing of the modern concept of the image plane being the result of a *cutting-off* of rays, be they light rays or visual rays. The fishbone effect seems no more to have resulted from a thought-out system than the vanishing points (which Panofsky strangely does not have an eye for), and in practise it does indeed only occur sporadically.[45] It would rather seem to be a structural echo of the vertically-oriented cosmos, about which we will soon be hearing more: the geocentric world picture.

The hypothesis of the local nature of perspective in antiquity is perhaps especially corroborated by an observation I will enlarge on later in this chapter: that the pictorial art of antiquity is primarily *anthropomorphically*-oriented. In this period, the nude human body becomes the bearer of a divine beauty and truth, expressed through the proportioning of the parts of the body. Therefore, significance will be concentrated around the ideal body and will decrease the further we move away from this body and out into the surrounding environment. As Hegel noted, the most obvious medium for this corpo-centric outlook is sculpture – the plastic immortalisation of the human body – and even in the most spatially wide-ranging painting it will be possible to find human figures which testify to this deep-rooted plasticity.[46] If only for this very reason, the development of a geometric system that does not formalise the depiction of the plastic ideal body, but the projection of an infinite, bodiless continuum, would seem to be quite inconceivable during this period.

The problem becomes more conspicuous the more spatially complex the image. Notice, for example, what happens in the Boscoreale fresco's comical section in which the buildings are seen from a distance and with no supporting symmetry (FIG. 1.23): the vanishing points are whistling in the wind, adjoining buildings are seen alternately from above and below, and the overall impression is almost cubist. This propensity reaches its culmination with landscape images in which buildings, monuments and groups of trees are freely assigned their own separate local perspective. In addition, the Roman landscape images have no structures such as fields, rivers or roads to give a more precise indication of their spatial composition. There is, to be sure, the occasional colonnade between detached villas, or

Fig. 1.23. *Comic Scenery for the Stage* (*c.* 40-30 BC), fresco. From Boscoreale, Villa of P. Fannius Synistor, cubiculum. New York, Metropolitan Museum of Art. All rights reserved, The Metropolitan Museum of Art.

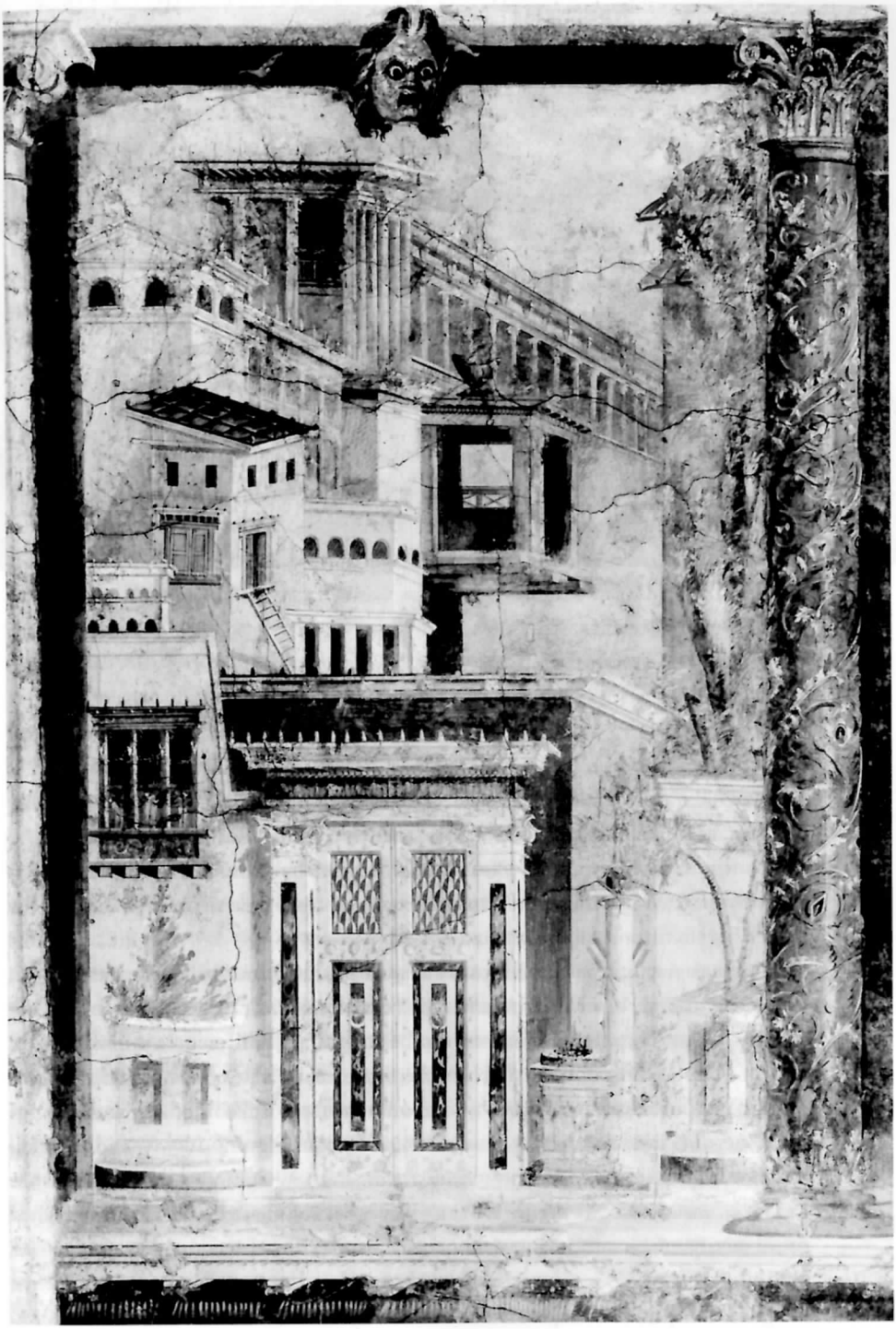


Fig. 1.24. *River Landscape* (*c.* 50 BC-50 AD), fresco. Rome, Villa Albani.

natural bridge between rocks, but spatial markers such as found in 15th-century painting – a substantial river or track meandering through the landscape from the foreground to the distant background – does not feature. Rather than representing a homogeneous infinity, the spaces would seem to be composed of smaller units, micro-spaces, which take leaps, quantum fashion, from unit to unit (FIG. 1.24). This results in what Panofsky terms an *aggregate space*.

Nor do open landscapes demonstrate abrupt transitions between near and far, in the way that is occasionally indicated in the architecture. As, for example, the *Odyssey Landscapes* demonstrate, there can be considerable differences in size between figures in the nearer and further middle-distance, or between those in the foreground and middle-distance, but a confrontation between something really big in the foreground and something small in the distant background is avoided. Overall, artists of antiquity avoid the remote distance. Even in the *Odyssey Landscapes*' rare images of sea meeting sky there is a long way to a sublime sensation of infinity that could justify reference to an actual horizon, an optically-determined vanishing line (FIG. 4). Spengler, who repeatedly remarks on the absence of an actual landscape image in antiquity, has expressed this incisively:

> In fact, there is not a hint of [the horizon] [...] in vase paintings and frescoes of the Classical age, or even in those of the Hellenistic in spite of its spatial treatment of foregrounds. This line, in the unreal vapour of which heaven and earth melt, the sum and potent symbol of the far, contains the painter's version of the "infinitesimal" principle.[47]

With particular reference to the *Odyssey Landscapes*, Spengler observes that they are still body-oriented: "In each case it is a *group of bodies* that is rendered – rocks, trees, even 'the Sea' as a body among bodies! There is no depth, but only superposition." [Spengler's italics][48] If the pre-modern pictorial space is compared to a balloon, then the Greco-Roman culture has certainly inflated it to the very limit – although without anything like enough force to carry out the explosion that would cause the bodies to disintegrate in an infinitely extensive homogeneous void.

That the balloon of pictorial space is not inflated to explosion point in antiquity has, as we will see in chapter 3, also obvious thematic consequences. Just as the earth formations had to await the image frame in order to become visible, so the theme *sky* would seem to require infinity-equivalent visual idioms such as colour nuance and perspective in order to be a valid component of depth of field. Even though a type of heavenly expanse breaks through in classical antiquity, it is therefore diffident and without celestial bodies or atmospheric phenomena.

The perception of space in itself, however, cannot be the only criterion for the absence of sky, as this non-appearance might equally well be described as being linked to another absence in pre-modern landscape images: traces of *time*. Phenomena of time such as seasons, diurnal changes and weather conditions dictate how the sky's sources of light and atmosphere are distributed across the firmament. Seen from this angle, it could be said that celestial bodies and meteorology do not appear because traces of time are of no interest in a pictorial context.

My point, however, is not to identify an absolute cause for the absence of these phenomena, but rather to pin down a paradigm of properties that mutually support and determine one another. That the paradigm has quite as much to do with the *way* in which the natural segments are depicted as to how they are selected is apparent from the fact that the interplay of space, time, light and atmosphere are essential ingredients in the illusionism displayed in modernity. All deal with something transient, intangible, airy, requiring delicate painterly nuance to achieve expression. It is not without significance that the word *nuance* comes from the French *nuer* (=to shade, to cloud) and *nuage* (=cloud), because it denotes colours so subtle that the gradation is blurred and an impression of continuity is evoked. In a still discontinuous and disconnected pictorial space such as that of antiquity, these colours will therefore always retain an element of something alien.

Pictorial space and social structures in classical antiquity

Following this relatively detailed preamble to antique pictorial space, I can now – by way of introduction – pose the same question to it as I asked of its precursors in the Neolithic period, Egypt and Mesopotamia, the answer to which will be elaborated in chapter 4: which social structures form part of the epistemic *field* by which it is determined? From a modern liberalistic angle there is no doubt as to the nature of antiquity's innovative political structure: civil democracy. And yet the Mesopotamian polarisation of urban elite and rural underclass was continued, even intensified. This paradoxical dual system, Marx's *antique* method of production, is described in a few precise words by Habermas:

> In Greece, Rome, and other Mediterranean societies, the private landowner combined the position of despotic master of slaves and day laborers in the framework of the household economy with that of a free citizen in the political economy of city or state (ancient mode of production).[49]

The landowner's combined status as despot and free citizen was made possible by a disintegration of the upper section of the archaic religious hierarchy. Whereas the Mesopotamian upper class was firmly married to the cultic apparatus surrounding the monarch, its Greco-Roman successor thrived in a more isolated private sphere where a new political, literary and philosophical culture could blossom. The freedom enjoyed by this culture was, however, also synonymous with leisure time, and this could only be realised at a radical distance from physical labour, which consequently, and to a more systematic degree than had been the case in Mesopotamia, was left to an underclass of slaves and day-labourers.

It was in the area circumscribing this new private sphere that the semi-perspectival gaze could materialise. In the same way as the citizens enjoyed freedom within the framework of the Athenian democracy or the Roman republic, it was subjectively-determined viewing points that established the structure of the pictorial space. But as democracy was at the same time restricted to a select band, the citizens, equivalent structural restrictions were imposed on these viewing points of the pictorial space. The barrier that prevents the pictorial space from opening towards infinity anywhere other than in frontal compositions could be regarded, in structural terms, as an echo of the barrier that, in the social pyramid, keeps the citizenry separate from its base of slaves. Just like pictorial space, antique democracy converges at a curious point of intersection between open and closed.[50]

A lateral glance: pictorial space and social evolution in non-Western cultures

That I have restricted my study of the evolution of pictorial space to the West is chiefly because of limitations in terms of information: a relatively deeper knowledge of Western than of non-Western culture. The sociological theory of evolution, however, focuses on a worldwide development, and by all accounts it would seem that the social phases in non-Western cultures are accompanied by almost the same pictorial stages as we have observed in the West.

Looking at the early cave paintings in Australia, executed at approximately the same time as their counterparts in the West, we observe a corresponding focus on fragmented, mobile and 'double-exposure' bodies (albeit here, for unknown reasons, in a less optic-mimetic version and with the presence of more human figures). And again, as in the West, these figures are the result of a Palaeolithic hunter-gatherer culture, where the distinction culture-nature does not exist. Conversely, if we ascertain that the pictogram-like figures in some South African rock paintings are part of narrative spatial scenes, at the same time as the depth of field now extends to stationary natural phenomena such as trees, then this indicates that we are dealing with more or less settled slash-and-burn cultures where isolation from nature was in the early stages of development.[51]

Coherent images – framed pictorial spaces as opposed to accumulations of independent figures – also undeniably attend the more advanced of the agrarian cultures: India, the Far East, plus, to a lesser extent, pre-Columbian civilisations in Mexico, Central and South America. Whereas in Asia figures may be depicted against a background of land formations, sometimes with incipient foreshortening (FIG. 1.25), the most advanced pre-Columbian pictorial culture corresponds to the Egyptian with its 'in-look' and sectional view through the earth (FIG. 1.26). Again, these observations can be substantiated sociologically, for whereas pre-Columbian civilisations are made up of hierarchical theocracies akin to the Egyptian,[52] India and China followed the same type of social breakthrough as we observed in Western antiquity: the transformation of the upper class from religious caste to semi-private elite with time and energy for philosophical reflection. As this evolutionary stage occurred at approximately the same time in West and East – around the middle of the first millennium BC – Parsons refers to a wave of *philosophic breakthroughs*.[53]

Therefore, despite the common transcontinental features, the move towards more sophisticated pictorial agents such as depth, foreshortening and atmosphere is only developed by Eurasian cultures – Western antiquity, India and the Far East. Whilst the Western depiction of landscape has a head start in antiquity, it is actually overtaken in the Middle Ages by China, which at the time fostered a painting with

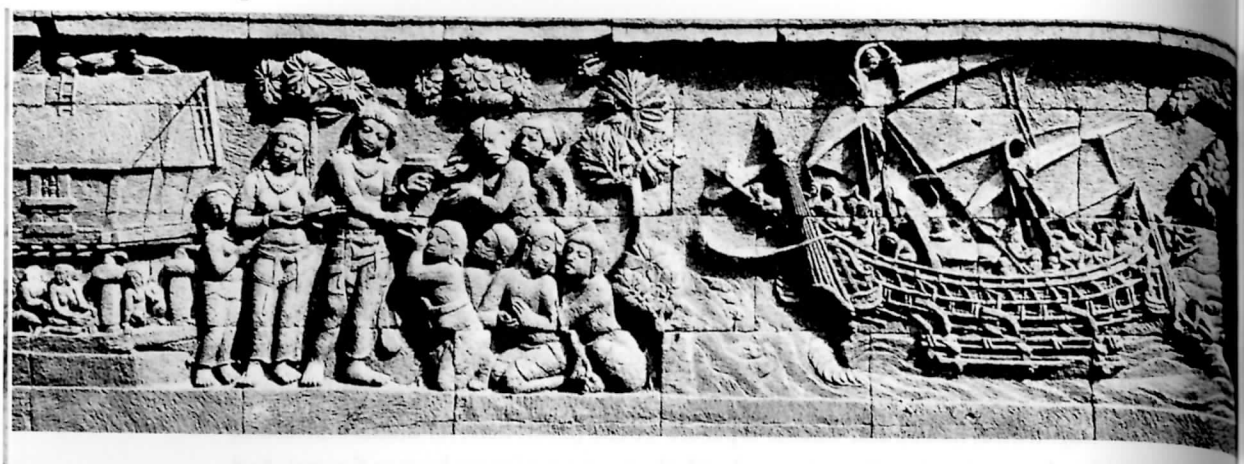


Fig. 1.25. *Hiru Lands at Hiruka* (late 8th century AD), bas-relief carving in lava stone. Java, Borobudur, bas-relief no. 86.

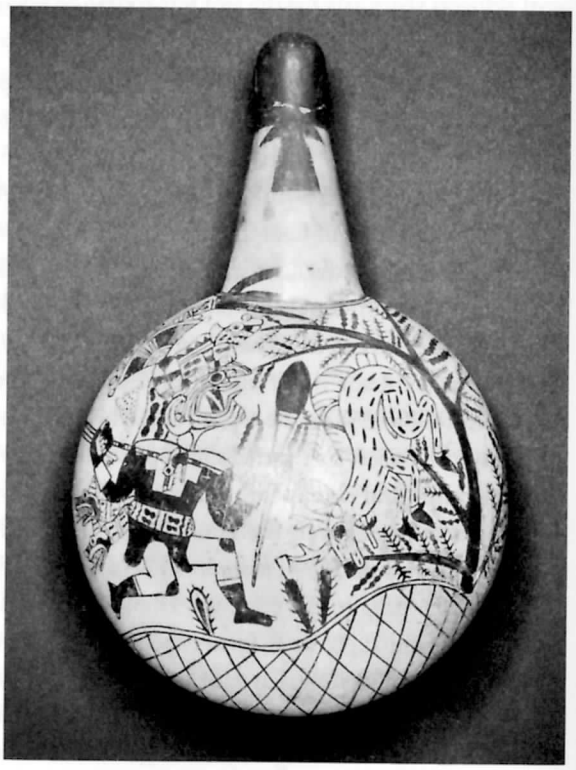


Fig. 1.26. Ceremonial vessel depicting a hunting scene (100 BC-500 AD). From the Moche civilisation on the northern coast of Peru. Chicago, Art Institute.

Old Fig. 1.27. Attributed to: Li Cheng (919-967), *A Solitary Temple amid Clearing Peaks* (Northern Song Dynasty, 960-1127), hanging scroll. Kansas City, Nelson-Atkins Museum of Art.

both panoramic distance effects and traces of time. Chinese horizons expand during the 8-10th centuries to fill autonomous landscape images, particularly of mountains, with mist, weather and seasons (FIG. 1.27).[54] Even though China never experiences a breakthrough to an actual pictorial infinity – an infinity represented by unlimited diminution towards distant horizons, such as in modern Western perspective – the sequence seems to be part of an epistemic *field* with certain presentiments of modernity.[55] It was in this *field*, for example, that technologies of invaluable significance for later Western evolution emerged: paper, printing, gunpowder, compass.

1.2 The pole of vantage point: pictorial space and evolution of consciousness up until antiquity

The legacy of Hegelian philosophy of consciousness

If it can seemingly be demonstrated universally that an urban culture's increasing complexity and distance from the land leads to a corresponding increase in the depth of field in images, I would also presume that another feature increases at the same time: *self-consciousness*, the human being's consciousness of its own consciousness, including consciousness of its difference from surrounding nature. The vantage point and accompanying depth of field in images can thus simply be understood as a visual expression for the extent of the sense of 'I': it is only on the basis of a certain consciousness of own identity, the subjective self, that it is possible to specify from which vantage point the surroundings are being seen and how far the depth of gaze stretches from this vantage point.

The idea that humankind develops its consciousness in an antagonism to the surrounding world was given philosophical foundation, in both a phylo- and ontogenetic respect, by Hegel.[56] Hegel believed that the human spirit is liberated in a progressive process, spanning from *sense certainty* ("sinnliche Gewißheit"), the mere sense of things in the surrounding environment, through *perception* ("Wahrnehmung") to *understanding* ("Verstand"), finally, in a provisional culmination, reaching *self-consciousness* ("Selbstbewußtsein"), the I's consciousness of its own sensing and thinking consciousness. As the ultimate aspiration, Hegel envisaged the spirit's return to the Absolute, i.e. the things it had reflected on, but, until that happened, the process had been based on an increasing separation between subject and object, I and substance. The process projected by Hegel constituted a type of ideal logic, which was chiefly aimed at the history of humankind, the phylogenetic development of culture, but which could also be experienced ontogenetically during the maturation of the individual, including, not least that of Hegel.

Even though the 20th century has seen the development of a potent scepticism vis-à-vis Hegel's philosophy of history and what many consider to be its irredeemably idealistic base, it is possible to ascertain synchretistically that its fundamental idea – the notion of the formation of the 'I' in an antagonism to the surrounding world – continues to flourish in the best of health in a good many scholarship traditions. This is true of, for example, Spengler, whose interest for the life cycles of individual cultures does not prevent him from repeatedly referring to how culture as a whole develops, like the child, from an undifferentiated to an autonomous sense of 'I':

> A whole series of grades or consciousness leads up from the root-beginnings of obscure childish intuition, in which there is still no clear world for a soul or self-conscious soul within a world, to the highly intellectualized states of which only the men of fully-ripened civilizations are capable.[57]

Despite the somewhat intellectually arrogant tone of such a quotation, we have to note that its Hegelian basic concept – the notion of a phylogenetic development from a mixture of consciousness/surroundings to an increasingly dualistic divergence of I/environment – is given empirical and theoretical credence in such apparently contradictory traditions as rationally-oriented cognitive psychology and irrationally-oriented psychoanalysis. Piaget's study of the child's cognitive developmental stages demonstrates, firstly, the way in which the child experiences a gradual internalisation of its experiences of the external world, a development that leads towards the construction of autonomous thought processes, known as operations; and, as demonstrated by Habermas, the outline of Piaget's development stages are to be found in the phylogenetic evolution of societies. But also the whole psychoanalytic tradition – Freud, Jung, Neumann, Lacan, Kristeva – has to be taken into consideration, for if Hegel, Piaget and Habermas have developed a victors' story of the evolutionary emancipation of consciousness, psychoanalysis has in no way frustrated this story, but merely elaborated it from the point of view of the vanquished (and gradually resurrected). With the fulcrum in ontogenesis, although with significant offshoots in phylogenesis, psychoanalysis has thus shown how enrolment in civilisation's order, the ostensibly autonomous 'I', is linked to a considerable job of oppression, in which self-consciousness has to exert itself at the expense of various forms of otherness, be this termed as unconsciousness, nature, body, femininity, the real, *chora* or abjection.[58]

For my purpose, the usefulness of the Piagetian tradition is, as mentioned, especially evident in relation to the development of pictorial space, where Suzi Gablik, Sidney J. Blatt and Lars Marcussen have brought to light the striking similarities between the child's space-presentational development and its phylogenetic parallel. As far as the psychoanalytic tradition is concerned, its consequences will be particularly evident when we turn to the pole of remoteness: cosmological evolution with its early feminine-based world pictures, including their structural parallels in the rocky grounds depicted in early post-Egyptian landscape images (see chapter 2).

Piaget's ontogenetic model

Piaget's ideas are chiefly aimed at the child's cognitive development: i.e. the way in which the child constructs a perception of the world in terms of areas such as spatial

relationships, time, movement, cause, number, language, judgement and morality.[59] According to Piaget, the child acquires its understanding of the surrounding world in an experimental interplay, where sensory impressions and experience of physical action are gradually converted into thought processes – mental procedures – which again have a retroactive affect on sense perception. In Suzi Gablik's words: "The word 'cognitive' refers to the way in which our picture of reality – what we actually perceive – changes, as both perception and representation become progressively more structured by thought processes and concepts."[60] The child's process of adaptation is thus two-sided: partly consisting of inward-directed absorption of new sensory impressions and experiences, which are subsequently converted into conceptual pictures, schemas (*assimilation*), and partly of outward-directed experimentation in which, through physical activity, the child tests out these conceptual pictures on the surrounding environment and by so doing becomes able to adjust and develop them (*accommodation*).

Unlike Gestalt psychology, Piaget does not accept that perception is converted directly to schemas in the brain, but that these will first be formed through several stages of physical and social interplay with the environment. Experience and knowledge are thus generated in an evolutionary process in which new capacities are developed in close association with existing cognitive structures. The inner representations thus constructed can be perceived as a re-creation in the brain, an internalisation, of the experiences that previously required physical action in order to be understood. Exactly as in Hegel's theory, the child thus goes through a growing degree of autonomous consciousness, culminating in a stage at puberty when the individual is able to manipulate thought constructions independently of the actual presence of the environment.[61]

Piaget, with his background in biology, chose the term *genetic epistemology* for his area of research because the cognitive experience is absorbed in a comparatively well-defined sequence of stages. The tempo at which these stages are undertaken can vary, just as there can be occasional influence from later to earlier stages, and yet the close connection between assimilation and accommodation means that there are clear boundaries for the extent to which the developmental logic can be eluded. How far the developmental process is unfolded in the individual child is, however, dependent on the developmental stage of the culture in which the child grows up, and the full sequence of development is therefore only experienced by children in Western or Western-influenced environments.[62]

The stages of development through which the child passes have been given the following headings: [1] sensorimotor (0-2 years); [2] preoperational (2-7 years); [3] concrete operational (7-11) years; and [4] formal operational (12 years onwards).[63] In the initial sensorimotor stage there are fluid transitions between the self and

the environment, which does not have established properties but only exists in the present, as it is only distinguished through sense perception and motor function (cf. Hegel's sense certainty). As the child gradually tests out its physical abilities and assimilates the symbolic world, initially in the form of language and images, the surroundings solidify into recurrent phenomena whilst the conceptual space expands into an egocentric mixture of sense perception and symbols without, as yet, a distinction being made between thought and things (preoperational, cf. Hegel's perception). The last two phases now deal with constructing this distinction, as experience is increasingly internalised and converted into inner representations. At first this happens in close correspondence between thought and concrete objects in the surroundings, and at the same time in a conformistic belief in the symbolic world's assertion of truth (concrete operational, cf. Hegel's understanding). Later, a realisation of the subjectively-bound foundation of thought develops and thereby its fundamentally hypothetical nature develops, and so the child can now 'operate on the operations', i.e. reflect on their form irrespective of content (formal operational, cf. Hegel's self-consciousness).

What makes Piaget's model so relevant to my purposes is, as mentioned, that it also involves the child's space-representational development, including, to some extent, the external imprint of this development in children's drawings.[64] Looked at overall, the formation of consciousness involves a shift of representational space from a near space without separate references, the so-called *topological space*, to a universal space based on abstract coordinates, the so-called *Euclidian space* (were it not for the widespread use of this term, the less antiquating term *Newtonian space* would be preferable). Topology, which as a mathematical discipline has been a surprisingly (or rather, taking into account cultural evolution's concluding cyclic turn: characteristically) late developer – around 1840[65] – is concerned with an elementary, qualitative space with no overarching properties such as relative dimensions, precise distances and positions. In return for this lack of quantitative features, topological space is robust in respect of deformations, i.e. continuous transformations, given that in such deformations its bodies and relationships between places will retain certain basic properties such as proximity, separation, sequence, enclosure and continuity. This space could be described metaphorically as drawings on a rubber tablecloth where, for example, squares and ellipses will be indistinguishable from circles because they are all closed curves that can be transformed to one another via the deformation of the cloth.[66]

In this way topological space approximates the child's first experiences of the world, which involve this very attempt to find fixed points, i.e. single out certain non-variables, in the variability of the surrounding environment. The child's representational space comprises a mosaic of fragmented immediate worlds, in which

tactile, *haptic* relationships and simple concepts such as proximity, enclosure and separation are fundamental. When they look at the external representation of this space – children's drawings up to the age of 7 – Piaget and his assistant Bärbel Inhelder find, corresponding to this, that there can be a greater or lesser connection within and between simpler forms, but that unifying frames of reference or foreshortenings are absent.[67] Even though their observations are a little unrefined – the idea of baselines is, for example, omitted – they are, as we will soon see, basically tremendously valuable and ripe for expansion.

According to Piaget and Inhelder's model, this local, topological space is thus determined by a consciousness phase, the late sensorimotor and preoperational, when the distinction between I and the surrounding world has yet to be firmly established and when consequently objects are not depicted in relation to such a thing as a subjective beholder's viewpoint. That this absent viewpoint is not merely a circumstance restricted to the committing of representational space to paper, but must be a deep-rooted condition of the child's perception of the surrounding world, is confirmed by an experiment conducted by Piaget and Inhelder, after Piaget, out for a drive with his son Laurent, had noticed that his son was not able to recognise the mountain they usually saw from their garden because now they were seeing it from an unfamiliar angle.[68] A group of children was therefore settled down in front of a papier-mâché model of three mountains, whereupon they were asked, for example, to draw the mountains both as they saw them and as a doll on the other side of the model would see them. The youngest children could only depict the mountains in rough outline as they appeared from their own immediate viewpoint, and this circumstance did not change even though they were allowed to swap places with the doll sitting opposite. The idea of different viewing angles and the ability to compare them was quite clearly not yet developed in the children.[69]

Representation of points of view – that is, perspectival projections – then presupposes a more distinct self-consciousness: the one initiated at the concrete operational stage. In Piaget and Inhelder's words: "Projective space [...] begins psychologically at the point when the object or pattern is no longer viewed in isolation, but begins to be considered in relation to a 'point of view'."[70] One of the first characteristics of the projective space is the depiction of objects that cover objects behind them, whereas foreshortening and diminution with distance presuppose a more developed self-consciousness. At the same time, this phase marks the beginning of a representation of the metric relationships of Euclidian space – relationships that are less resistant to deformations, but on the other hand sensitive to distances, curves and angles – as increased self-consciousness also acts as anchorage for necessary references more independent of the material world. The process reaches completion at the formal operational stage, when the now autonomous consciousness finds access

to a purely abstract space, the Euclidian, with a reference system independent of the material surrounding world, and fully co-ordinateable multifarious perspectives. At this stage the space has become an endless, homogenous vacuum existing independently of any bodies that might be in it.

Psychoanalytical ontogenesis

If I am to follow my synchretistic schedule, I must also by way of introduction make Piaget's model compatible with psychoanalytical terms, even though it must be stressed that equivalences show up for the most part in the overarching, diachronic sequence rather than in the concrete synchronic phases. In similar vein to Piaget's thinking, one can from Freud, Jung and Neumann through Lacan to Kristeva ascertain that the child embarks on existence in a changeable terrain, where the boundaries between body, consciousness and surrounding world are fluid – what Neumann terms *uroboros*, Lacan *the real* and Kristeva *the semiotic chora* (all quite equivalent to Piaget's sensorimotor phase). In order to construct an identity – an I – the child has to take distance from and subjugate this lack of differentiation; an act that is made possible by enrolment in culture, Lacan's symbolic order (cf. in particular, Piaget's concrete and formal operational phases).[71] Psychoanalysis can, not least, supply Piaget with an interpretation of the autonomisation of consciousness in relation to gender. The development of self-consciousness is here about freeing oneself from the initial symbiosis with the mother, which is initiated through pre-stages such as the Lacanian imaginary phase (alternatively: mirror phase) at the age of 6-18 months (in reality later, see below): identification with the apparently coherent, yet separate body. The formation of an I more marked by consciousness occurs with the Oedipal conflict around the age of 3-5 years, when the child discovers the father's gender and is thereby inscribed in the symbolic order: power based on language and understanding of woman as otherness.

In relation to Piaget, then, psychoanalysis can in particular elaborate the kind of otherness against which the subjective consciousness is demarcated during its growing autonomisation, a repression manoeuvre which, as mentioned, is especially useful in the description of cosmological evolution. But psychoanalysis can also be of a certain usefulness in relation to the representational space. If we consult Lacan's interesting, but unfortunately also somewhat cryptic, deliberations on sight, we note that the author, not unlike Piaget, operates with two different modes of sight, according to whether consciousness has a bearing on the act of sight or not.[72] In the pre-conscious mode of sight – the gaze (*le regard*) – it is not so much a case of looking as being subject to the real looking back at us: a symbiosis with the world, which is manifested through non-linear formations of colour and light patches. In

the conscious mode of sight – the eye (*l'oeil*) – however, the I of the symbolic order takes over and directs its far more active sight towards the world, which is thus controlled by perspectival linearity.[73] With certain modifications, this pattern, as we will see, would also seem decipherable in the phylogenetic evolution of culture.

From onto- to phylogenesis: arguments in favour of bridge-building

The premise on which the above can be of significance for the present project is of course an operation which is implicitly embodied in Piaget's model, but of which the contemporary dominant academic trends, including their psychoanalytic variants, are extremely sceptical: that properties of ontogenesis – the child's cognitive, space-representational and gender-conceptual development – can be transferred to the same areas in phylogenesis: the cultural development from the Palaeolithic period to modernity. From many viewpoints – spanning from common sense through politics and cultural critique to positivist anthropology – it might indeed seem strange, or even a case of gross cultural chauvinism, that the undeveloped child, with scanty experience of the world, should have similarities with societies, which comprise mature adults and have by that means passed on experience for several thousand years.

Which arguments, then, can render probable that this comparison does indeed make sense on some level? If we first accept (as, for example, French psychoanalysis does) that, through socialisation and experience-based development, the child reaches the stage of development occupied by the surrounding culture, it is difficult to avoid the question: how has this stage of experience been reached *by the culture*? The sceptic will here inevitably think that even though the culture and the mature child have, in some way or other, reached the same level of experience, their respective developments thus far must have taken place via radically different and therefore incompatible routes. In order to challenge this scepticism, we could now, wearing the spectacles of physical anthropology, allow our gaze to glide from the final phase to the beginnings. Here we can observe that only the more complex mammals – besides humans: chimpanzees and perhaps also orang-utans, gorillas and dolphins – have developed the ability to recognise their own mirror reflection, and at the same time, as indicated (cf. Lacan's mirror phase), that humans are not born with this ability, but only develop it at the age of 16-24 months.[74] If humankind shares this ability (quasi-consciousness) with its immediate predecessors in biological evolution, it is, however, uniquely possessed of a symbol-based language: a facility which is developed later in the evolutionary sequence and manifests arrival at consciousness proper, i.e. consciousness of humankind's dissimilarity from the rest of the natural world. Also, in ontogenesis language is a competence developed

after the quasi-consciousness of the mirror phase – i.e. after the age of 18 months – and here similarly it marks the development of consciousness proper: the first stage of self-consciousness. Inasmuch as it is thus possible to make three well-defined comparisons in both the initial and final phases of the two developmental systems: cultural phylogenesis and child-educational ontogenesis – namely: recognition of mirror reflection; development of a symbol-based language; maturation of culture – it would not seem unreasonable *at some analytic level* to picture the possibility of bridge-building in the intervening stages too.

A further argument for the relevance of such bridge-building – and at the same time one that can supply some decisive restrictions to its mode of operation – is given if we extend our attention to the biological genesis previous to the cultural, and analyse the embryo's development in relation to evolution as a whole. As mentioned in the Interlude, it is here a morphologically clear fact that, in its early ontogenesis, the embryo goes through biological evolution's phylogenesis: from simple multi-celled organism, through fish and saurian, to mammal and human. If biological evolution thus develops its individual organisms by putting them through the route undertaken by the species as a whole in its genesis, it is then not too big a step to assume that cultural evolution, a superstructure on nature, must employ similar mechanisms. Furthermore, it is here illustratively demonstrated that the correspondence between phylo- and ontogenesis is in no way a matter of total similarity, but rather of certain overarching structural common features. A human embryo at the fish stage is not a fully differentiated fish – a shark or a trout – but merely shares properties with the fish embryo just before it begins to develop into a specialised, and at the same time more fully differentiated, subspecies of fish. Correspondingly, a six-year-old Western child's perception of the world is not identical with, for example, that experienced by the ancient Egyptian culture; it is merely possible, on a very overall level, to isolate structural similarities between the child's and the archaic intermediate culture's mentality – similarities which then, in the Egyptian culture, were differentiated far ahead of anything explored by the modern child.

Phylogenesis from the Palaeolithic period to antiquity

Thus prepared, I can now, backed up by Gablik, Blatt, Marcussen, Habermas and Jung's pupil Erich Neumann (1905-60), take the step across the controversial threshold and demonstrate that in the child's space-representational ontogenesis there is actually a good deal to be learnt about the corresponding phylogenetic sequence in culture – albeit this time round I will have to restrict myself primarily to the sequence from the Palaeolithic period to classical antiquity (on modernity, see chapter 8). Actually, the inclusion of the phylogenetic evolution of the image would

seem to be able to add light and shade to Piagetian terminology as, through Blatt's and Marcussen's close readings of prehistoric development, we are equipped with parameters that reach further than Piaget and Inhelder's mere distinction between pre-projective and projective space – an unrefined commentary that has also spread to Gablik's otherwise so pioneering reading of Piaget, in which time apparently is at a standstill from Egypt to Byzantium (the prehistoric stages are completely overlooked).[75] In interaction with Blatt's and Marcussen's observations, it is my hope that the concept of depth of field will constitute a further extension of the Piagetian perception of space.[76]

In the view of Erich Neumann, Jungian historian of religion, the prehistoric human was part of an inviolable synthesis with the natural environment. As mental life was as of yet unmarked by consciousness, a natural continuum flowed between mind and nature, a cyclic life-current, which Neumann compares with the *uroboros*, the snake biting its own tail.[77] The condition can thus be understood as a transfer to phylogenesis of psychoanalysis's symbiotic condition between mother and child, and furthermore it corresponds to Piaget's sensorimotor phase in which there is no difference between the conceptual world and things and between things and humans. At this stage it is tempting, with Habermas, to turn to Hegel's description of the child's identity: "an immediate, therefore un-spiritual, just natural unity of the individual with its kind and with the world altogether".[78]

If we now return to the phylogenetic narrative of the image, it would seem quite reasonable to interpret the Palaeolithic cave paintings with their ultra-low depth of field, fragmentation and double exposures, as an expression of this pre-conscious, sensorimotor condition – or perhaps rather: of a condition *on the threshold* between pre-conscious and conscious, sensorimotor and preoperational. In the same way as the cave painters are without knowledge of an elaborated difference between nature and culture, there is an absence of the otherness that defines consciousness and thereby also of the anchorage which allows the pictorial gaze to reach out to the depth, the visualisation of otherness. Nevertheless, the fragmented contours that put an incipient distinction between bodies and that which is outside them show that there is now a developing consciousness of object preservation and constancy in the midst of the surrounding environment's changeability. As Blatt points out, in terms of representational space we are now at the entrance to the topological space where the object and its elementary, non-geometric relationship to the surrounding environment is at the centre.[79] Blatt further notes that if it is correct, as some scholars maintain (even though it is far from proven), that handprints and meanders chronologically precede animal bodies, then we also have a parallel in a phylogenetic respect to the actual sensorimotor stage as it is here that the image takes the form of direct, indexical imprints of the movements of body and hand.[80]

As is emphasised by their often fragmented contours and lack of represented surrounding environment, the animals are, as mentioned, accommodated in rock material of almost the same level of reality as themselves and the undeveloped subject that fixes their visibility. Even though Lacan, in keeping with the general French post-war tendency, did not wish to historicise his concepts, it would therefore seem justifiable to see these images as a manifestation of his key concept: the gaze (*le regard*). Unlike the conscious and controlling eye-sight – the sight of the symbolic order which puts an 'I' at the centre of what is seen – this unconscious sight suspends the subject-object relationship, by means of which the images reveal themselves to the person seeing in the same way as the incoming dream with its absence of a decision-making ego. In Lacan's words: "[...] in the so-called waking state, there is an elision of the gaze, and an elision of the fact that not only does it look, *it also shows*. In the field of the dream, on the other hand, what characterizes the images is that *it shows*."[81] This identification of the cave painters' images with *le regard* has particular weight, of course, if the cave paintings actually account for an arresting of hallucinations, shamanistic visions, which seem to the person seeing as if they come actively from the underworld – alias Lacan's *real* – through the walls of the cave.

According to Jungian history of religion, this lack of difference between subject and object is broken down gradually with the birth of consciousness. The 'I' is now distinct from the world, spirit from matter, and the objects of the world are thereby separated from each other and from the human who is looking at them. In Neumann's words: "It is the mark of man to be pitted against the world, it is his sorrow and his specialty; for what at first seems loss turns out a positive gain."[82] This incipient pitting against and positioning outside the world is thus what leaves its pictorial tracks in Mesolithic and Neolithic tribal cultures, where a slightly expanded depth of field now includes the first, immediate, surroundings such as trees, mountains and footprints, while the figures are placed in a simple narrative relationship to one another. In terms of representational space, it is, like the child's preoperational stage, a case of a mature representation of the topological space: the space appears locally due to additive clustered elements, by means of which relationships such as proximity, separation and sequence are described, whilst precise distance and depth are absent. If topological perception of space reaches its climax in Meso- and Neolithic frameless compositions – equivalents to the non-existent field of vision – it is challenged little by little in Egypt's pictorial space, the simplest form of projection. Although there is still no view towards a distance in the form of backgrounds, the images here are gradually arranged according to a framework – the metaphor for the subjective field of vision – just as the figures might cover the view of figures behind.

As Habermas has rendered plausible, from a sociological angle it is also

reasonable to compare the stage of settled clan cultures (Parsons' advanced primitive) with Piaget's preoperational stage – a stage that could be seen as extending into Egypt, taking into consideration Parsons' comment on this culture's continuance of a Neolithic way of life.[83] On a both onto- and phylogenetic level, it is a case of a more differentiated self-consciousness determined by the adoption of a complex symbolic universe. And yet perception of the world is still egocentric, as there are fluid transitions between the symbolic universe and the surrounding world, between sign and referent, and between society and nature. Just like the child, in a form of animism, perceives objects in the surrounding environment as being endowed with character traits familiar from his or her immediate social environment,[84] so the tribal society sees nature permeated with divine forces, which in a series of analogies are put together with the tribe's mythical history. In Habermas' words: "In the mythical world all entities are perceived as equal: the individual humans are just as much substances as stones, plants and animals."[85]

Society does not become concrete operational and conformistic until – as in the later state-controlled ancient cultures: to some extent Mesopotamia, in particular Greece-Rome and the Judeo-Christian culture – it develops the concept of a monotheistic beyond, on the basis of which a universal truth is sought.[86] As this truth is of a spiritual character, worldly nature can be controlled by a separate symbol world: the seat of *logos* or the idea. In addition to generating a cosmological distinction between a spiritual beyond and the material nature, this symbol world also, via an extension from heavens to personal interior, creates a more autonomised consciousness, a quasi-independent I, which is superior to both the immediate environment of the body and nature in a more general sense. With reference to the preordained supreme principles, a reflexive space is hereby created in which the narrative explanation of the myths is replaced with clarification based on rational argumentation. It is precisely here that this form of consciousness can be said to correspond with the child's concrete operational phase, for if the child has become capable of reflection it is still based on acquired tenets, especially parental authority (in Habermas' terminology this phase is therefore also designated *sociocentric/objectivistic*).

In terms of representational space, this phase corresponds similarly with an incipient Euclidian-perspective space, in which the depth of field first reaches out towards land formations in the form of backgrounds (Mesopotamia), later arranges figures and land formations according to a perspective with foreshortening effects and, on a few occasions, vanishing points, albeit the latter are still limited to a frontal view (Greece, Rome and, in part, the Middle Ages). Here the perspective is still intuitive and only applied, as a remnant of topological space, to limited sections of the pictorial field, which thus takes on the appearance of a mosaic of local perspectives (Panofsky's aggregate space). At the height of the concrete operational

phase – Greece and Rome – this is connected to the space still being inextricably bound to the body and to the body receiving the greatest form-defining attention. In other words, this constitutes a unique field of suspension between centrifugal and centripetal forces, between a space that seeks to open up towards infinity and a body that pulls the space back towards it in a final topological attempt at object preservation. As Blatt points out, this is where we find the roots to antique ideality and its successor in the Renaissance: "Thus the search for symmetry and perfect proportionality of an idealized figure is an essential part of the intuitive phase of object representation and for the subsequent development of operational modes of representation."[87]

As this quotation suggests, Blatt does not consider the intuitive antique perspective as actually identical with Piaget's operationality, but compares it to a Piagetian sub-phase, also called the intuitive, which is midway between preoperationality and concrete operationality. The case is that, unlike Habermas, both Blatt and Gablik want to identify the concrete operational stage with the Renaissance (my modernity), while the formal operational stage is deferred right up until abstraction in 20th-century art. As far as I can judge, however, this is due to a misinterpretation of Piaget and Inhelder. Even though these scholars admittedly, somewhat unfortunately, structure their book as if a purely projective space preceded a purely Euclidian space, a closer reading shows that the two types of space are seen more as aspects of the same type of pictorial space, this being a space defined by abstract coordinates.[88] In that way the concrete operational stage does not fully display a purely projective space, but rather a partial manifestation of a combined projective-Euclidian space – just as the formal operational stage in no way, as is the case with abstract art, involves the breakdown of perspective in favour of a 'pure' Euclidian pictorial space (or, as Blatt would have it, even a Riemannian space), but more likely the final maturation of the combined projective-Euclidian space, including the full coordinateability of the perspectival space. In a phylogenetic respect, this situation must be said to have been fulfilled not in the 20th century but rather, as will be shown with further discussions in chapter 8, the period from the 15th to 19th centuries.

The above understanding is corroborated by Lars Marcussen who shows, at an advanced level of abstraction, how the space-representational phases can be arranged according to mathematics' theory of the transformation of geometric groups, by means of which the mathematic theory emerges as a kind of idealised distillate of accustomised predispositions of consciousness. Where spatial organisation in the prehistoric cultures can be compared with transformations without metric preservation – respectively: dispersal with its point-to-point preservation (Palaeolithic) and topological transformation with sequential preservation (Meso- and Neolithic) – the historical civilisations' spatial organisation can be compared

with transformations in which the parameters angle (Egypt), parallelism (classical antiquity) and straight lines (modernity) are preserved.[89] In Marcussen's account, it is thus in the Renaissance and Baroque that abstract spatial geometry is discovered and developed: all the figures can be conceived as images – projections – of other figures and all that is preserved in polygon or polyhedron projections are thereby their straight lines. This geometry – related to perspectival art – must in turn be seen as equivalent to Piaget and Inhelder's projective-Euclidian space, even though Marcussen again supplies material to problematise the designation "Euclidian", as he demonstrates that Euclidian geometry proper – that of antiquity – operates with delimited bodies as they exist 'in themselves' and beyond a conscious projection, whereas post-medieval geometry systematically explores the ways in which lines and points can be depicted in an infinite and abstract space.[90] According to Marcussen's mathematical developmental logic, the abstract art forms of modernism should not be assigned to this continually surface-oriented space, but rather to the non-Euclidian geometries of Gauss, Lobachevsky, Riemann and others who, since the 1820s, break the connection with every sensory reading.[91]

If we extend Gablik and Blatt with these corrections and with the observations of increasing depth of field in the evolution of the image, it would thus seem that we have found significant evidence for the profitability of Habermas' reading of Piaget, and thereby for the observation that both the child's ontogenetic development and phylogenetic cultural evolution involve what Habermas describes as: "an ever-clearer categorical demarcation of the subjectivity of internal nature from the objectivity of external nature [...]."[92] In the wider perspective of the history of science, the Hegelian historically-based philosophy of consciousness also takes on renewed topicality, and it becomes particularly tempting to combine its art-historical implications, and their afterlife in Riegl's hands, with my thesis (see FIG. 1.28). To Hegel, the emancipation of the spirit is reflected in visual art, as mentioned, in a form of movement from within outwards, from material encapsulation to ethereal distance viewing, as in visual art the medium through which the spirit gains expression is displaced from architecture (Egypt, Hegel's symbolic phase) through sculpture (classical antiquity) to painting (post-antiquity, called romantic by Hegel). Starting from an enclosed state, in which the spirit is surrounded by anorganic nature, which it cannot control but has to set in cryptic geometric forms, symbolic architecture, the spirit moves to temporary emancipation, a perfect symbiosis with matter, of which it marks detached parts in the form of sculpture with its fusion of form and content. This movement from searching to finding ultimately ends in overstepping when, at the romantic stage, the spirit emancipates itself completely from matter and instead, through its key visual medium, painting, reflects the surrounding environment from the subject's distance.[93]

Irrespective of the historical setting, it is not difficult to see that this model corresponds rather accurately to my observations heretofore concerning the evolution of pictorial space and self-consciousness. For even though we have followed the same medium, painting, increase in depth of field could be understood in itself as consciousness pulling away from surrounding matter (the cave walls) and out towards a steadily more artificial representational space emancipated from matter (the subjectively-determined picture-plane). From a stage, the Palaeolithic period, at which interweaving with the material environment prevents and renders superfluous spatial re-creation and thereby specification of a subjective beholder's vantage point, the image moves to stages in which the picture-plane is made artificial and the surrounding environment must correspondingly be represented from the distance of subjective looking. As this process develops over a protracted period, its basic mechanisms can be detected at various points in time, meaning that Hegel did not actually need to take the Palaeolithic period as the requisite starting point. On the other hand, I agree with Hegel's description of classical antiquity as a sort of middle phase of this emancipation, as here the foreshortening effects of perspective and the look out towards infinity have been discovered, while attention, as a kind of completion of the topological space, is concentrated on depicting the human body in complete closure, an endeavour that finds its most obvious medium in sculpture.

Thereby Riegl is also brought into the equation without too many translation difficulties, for even though his categories of vision are derived directly from the sculptor Adolf von Hildebrand's *Der Problem der Form in der bildenden Kunst* (1893) and have disengaged any dealings with aesthetics pertaining to the philosophy of history, they can be shown to originate ultimately in Hegel – actually, indeed, to be a finely-tuned optical articulation of Hegel.[94] In a similarly three-phased development, he thus again lets pictorial art be determined by a kind of visual retreat from matter: from haptic near sight (Egypt) to mixed haptic-optic normal sight (classical antiquity) to purely optical distant sight (at the rudimentary phase in late antiquity, fully matured in Impressionism). Besides this affinity with Hegel, Riegl's categories can profitably be put together with Piaget's and thereby Gablik's, Blatt's and Marcussen's evolutionary models, because at the same time that the distant sight corresponds to perspective's projective look out towards the infinite environment, the haptic near sight would seem to be close to Piaget's notion of an introductory topological space in which consciousness's lack of distinction from the surroundings is transformed into precisely near and haptic values – values which we indeed still noted influencing Egyptian pictorial space. And when Riegl defines the art of antiquity as a mixture of haptic and optic – a mode of vision that continues to focus on the bodily, but involves light-shadow and space relationships in the assessment – it also corresponds well to the dawning but as of yet

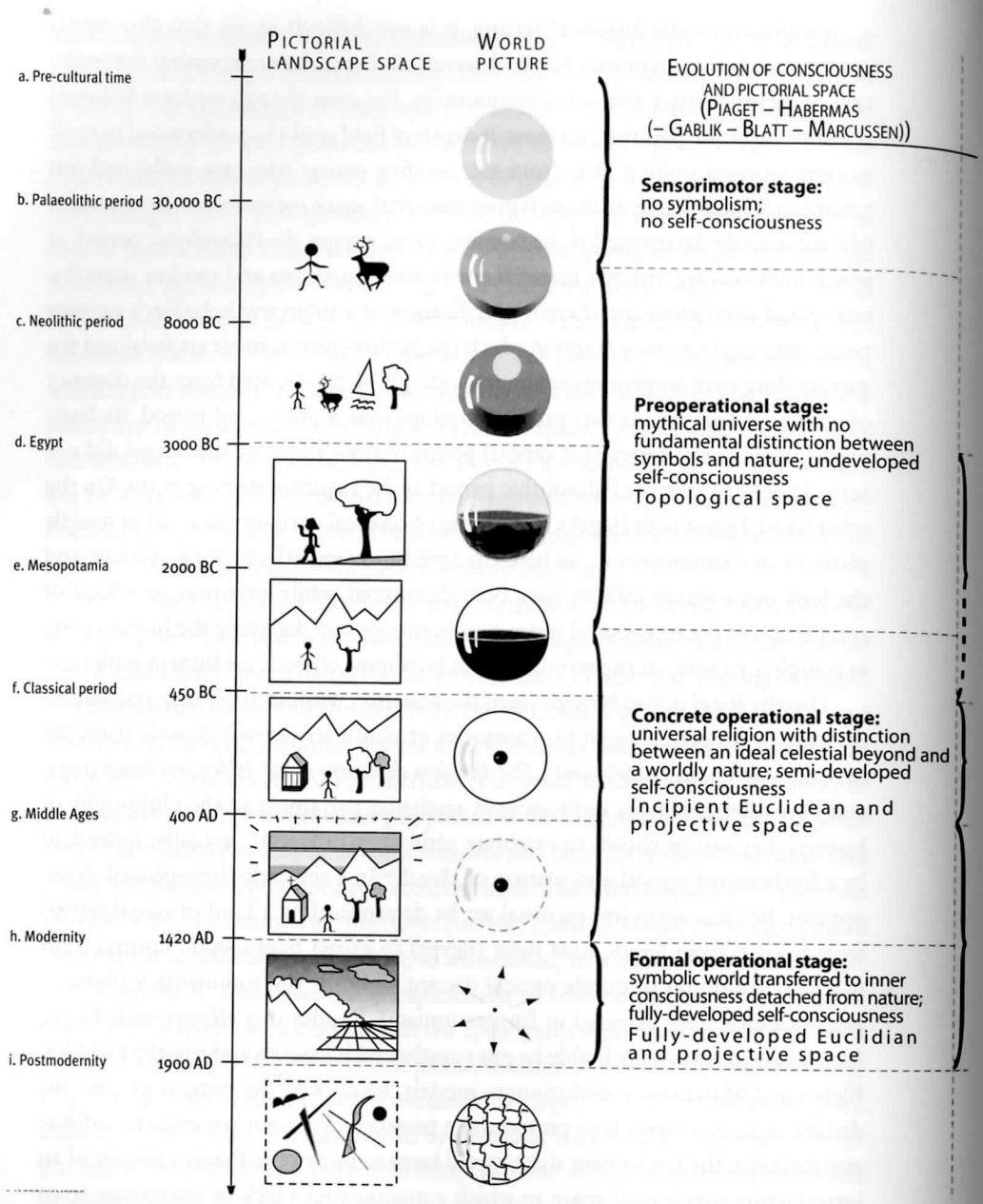
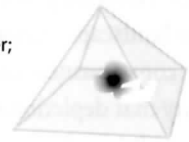
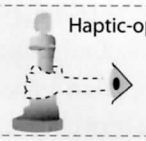
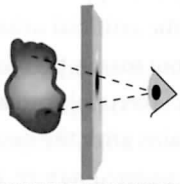
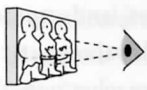


Fig. 1.28. Evolutions of consciousness and art.

EVOLUTION OF SPIRIT AND VISUAL ART ACCORDING TO HEGEL	EVOLUTION OF PICTORIAL VIEW ACCORDING TO RIEGL
Symbolic stage: spirit confined in matter; architecture 	Haptic near sight 
Classical stage: symbiosis between spirit and matter; sculpture 	Haptic-optic normal sight 
Romantic stage: spirit liberated from matter; painting 	Optical distant sight 

not fully-developed view-point-determined perspective that according to Piaget accompanies the concrete operational phase in which consciousness's hypotheses still develop in close contact with the concrete objects of the surrounding world. As I will soon demonstrate in more detail, Riegl thereby also provides a nuanced reading of Hegel's Classical sculpture, which should not merely be seen as purely tactile, but rather as tactile in a specific visually-appealing manner. Sculpture is developed in the three dimensions of space, but is nonetheless intended for a single frontal gaze.

Landscape image and numen

The evolutionary rhythm by means of which consciousness is built up in an individual looking back towards a steadily more desacralised nature, finally finds visual testimony via the question: to what extent can natural elements be depicted on their own without requiring the presence of human figures? According to a widespread and, in its own way, correct assumption, *autonomous* landscape images devoid of human figures do not appear until modernity. Here, consciousness can be said to have become such an unambiguous, subjective quantity that depiction of the naked environment, the mirror of consciousness, provides a valid aesthetic experience.

But if the concept of landscape is understood in its broadest meaning, as 'depiction of nature', then we actually find landscape images devoid of human figures way back in time. A good example is a Sumerian steatite vase from around 2700 BC (FIG. 1.29); here, all we see is a series of bands depicting palms and a scale-like pattern of hemispherical mountains.[95] Even if these natural forms appear ornamental, they can quite properly be called landscapes as they presuppose a culture that has taken the first step out of a natural state and into the artificial urban space.

These early 'autonomous' landscape images are not merely permissible by virtue of an emergent aesthetic self-value, even though this is certainly present. Legitimacy is derived just as much from what nonetheless remains after the desacralisation of the spatial gaze. Rather than the gaze draining an *in*-spired nature, this is actually a case of *transformation* of the original and natural force that is characterised by wholeness – Neumann's *uroboros* – to a spatial view characterised by consciousness; and as the transformation is far from complete, natural forms must still contain something of this force, even in their simulated shape. I will here call this force the *numinous* force, or simply *numen.*

Since the transformation of the numinous force into spirit is visible in increased depth of field, then the less the degree of depth of field swathing the natural forms, the more *numen* they possess, which means that they are also more able to appear alone without the presence of human figures. As depth of field and the individual

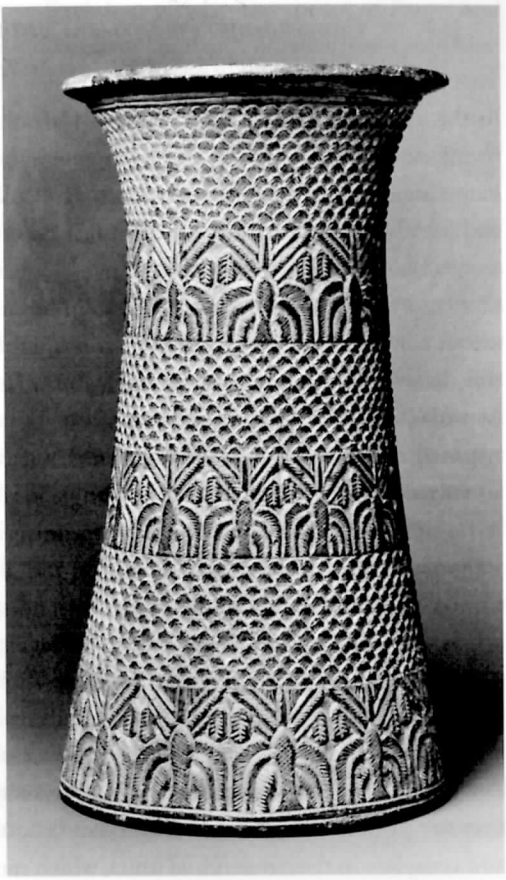


Fig. 1.29. Sumerian steatite vase depicting mountains and trees (*c.* 2700 BC). New York, Metropolitan Museum of Art. All rights reserved, The Metropolitan Museum of Art.

viewpoint intensify, however, over the course of cultural evolution, there is no longer enough *numen* to support the nakedness of natural forms. Here pure 'autonomy' becomes unacceptable and the presence of the figures is required: in limited views, animals will suffice, but when the gaze stretches further then human figures are required. An alternative would be to go from *actual* to *potential* depth of field, i.e. tone down the depth of field, which is possibly within reach at the evolutionary step concerned – for example, by the insertion of closed backgrounds such as shrubbery or rock faces – through which, accordingly, a quasi-archaic and thereby more *numen*-filled pictorial space is created (see, e.g., PLATE 14; discussed further in chapter 6). Thus, the extent to which figureless landscape images are possible at a given evolutionary stage is not an absolute, but a relative question, qualified by the individual landscape image's spatiality relative to the horizon of possibilities at a given evolutionary stage.

Concluding comparison: onto- and phylogenetic evolution of the pictorial space

In the above, Piaget's ontogenetic categories have acted as significant guidelines in my description of the phylogenetic evolution of the pictorial space. However, Piaget's experiments mainly apply to exploration of mental space representation and less to its outer expression: children's drawings, the treatment of which, as far as their early stages are concerned, could therefore seem to be somewhat selective. Of Piaget's successors, Gablik, Blatt and Marcussen, only the latter in fact devotes actual analyses to children's drawings, so I deliberately postponed a discussion of this, in its way, most relevant of ontogenetic comparative material until familiarity with phylogenetic space representation had sufficiently fine-tuned our analytic apparatus. It must be stressed, however, that the evolution of children's drawings is not part of my actual area of study – phylogenetic representation of space and landscape – so I will restrict myself to some main tendencies which would seem to support my observations.

As is apparent from Blatt's enlightening examination, comparative studies of the developments of art and children's drawings have previously brought about a number of interesting models, although most are based on theories of perception rather than, as in Piaget's work, representational space.[96] In one of the earliest contributions to this field, Emanuel Loewy's study from 1900, the idea was advanced that children as well as early cultures draw objects in the surrounding world as they are preserved in the memory, i.e. in a form that makes them distinct, clear and complete in their individual units, which mostly correspond to the object in its maximum extent: profile or *en face*.[97] Loewy went on to suggest that children's drawings and art alike gradually move away from these memory schemas and towards more perceptional image forms in which covering effects, light-shade gradations and perspectival depth are implemented.[98] Even though, *inter alios*, Meyer Schapiro has sown doubt as to the validity of Loewy's memory images, his analyses on the descriptive level have proven to be serviceable, and scholars such as Gustav Britsch, Henry Schaefer-Simmern and Rudolf Arnheim have, for example, been able to elaborate them in relation to the pair of terms: depth and figurative complexity. Accordingly, the early stages will deal with simple solitary figures, which indicate a correspondingly elementary figure-ground relationship, whereas the subsequent depth effects – initially stacking on the plane, covering effects and slanting space-demarcating angles – exact more intricately developed figures.

Whether the early phase is described on the basis of memory schemata or simple figure-ground relationship, it is again comparable with Piaget's topological representational space, and similarly the later phases with their greater sense of depth

are coincident with Piaget's projective-Euclidian phases. The source of Piaget and Inhelder's own conception of the development of children's drawing, Georges-Henri Luquet's ontogenetic study (1927), also has a similar division, with topology approximately covered by, respectively, "synthetic incapacity" (3-5 years of age) and "intellectual realism" (6-8 years of age), while the beginning of the projective-Euclidian phases corresponds with "visual realism" (8-9/10 years of age).[99] As to the first phases, synthetic incapacity refers to the child's initial lack of control over the line (open 'circles', arms on heads, etc.), while intellectual realism refers to the child's drawn record of its comprehension of objects rather than the optical visual impression that comes later. Luquet's explanatory model thus recalls Loewy's idea of memory schemata, and in 1930 it was indeed tested out on phylogenetic development.[100]

From my own studies of the development of children's drawings, I can corroborate the key tendencies in these models and would, moreover, emphasise the following traits that can specifically serve in a comparison with the phylogenetic development of the pictorial space. It must be repeated at once that the similarities between the onto- and phylogenesis of representational space can only be detected on an overarching structural level (cf. previous provisos), and that these similarities become even more overarching the further back we move towards the infant phase: here Luquet's "synthetic incapacity" – the child's undeveloped experience of expressing mental representations at all – could thus be said to take over. Of course, it is no straightforward matter to single out what is due to lack of ability and what can be ascribed to actual, developed schemata, but synthetic incapacity would nevertheless seem to constitute an important differential factor in the comparison between onto- and phylogenesis.

The child's first attempts at drawing, at the age of 1-2 years, would seem to comprise completely non-figurative lines, which indexically fix the movement of the hand. Hereby they become an illustrative expression of the sensorimotor stage in which the child has yet to develop stable mental representations, but explores the surrounding world via movement and sense impression. If it is true, as we have seen some scholars assume, that the first cave paintings are made up of handprints and certain simple geometric patterns, which can similarly be seen as indexical fixing of hand movements, then it could already here be possible to observe a structural correspondence between onto- and phylogenesis. Even though sensorimotor hand movements persist for a number of years, from the age of 2 years they are supplemented with various forms of simple figures, which at first (2-3 years of age) would each seem to be living an independent life (FIG. 1.30). This results in a double- and multi-exposure effect, which can be compared with the cave paintings' many-layered and translucent overlapping of animal bodies (FIG. 1.31). In the same way as in the cave paintings, this phase of children's drawing is, moreover, devoid

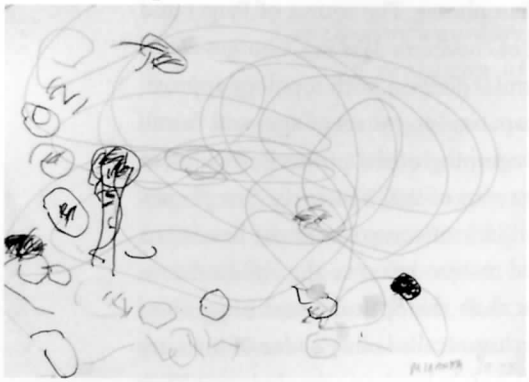


Fig. 1.30. Drawing by nearly 3-year-old girl (2004).

Fig. 1.31. *Horses and Bulls* (*c.* 15,000-12,000 BC), cave painting. Dordogne, Lascaux cave.

Fig. 1.32. Drawing by 5-year-old girl (1997).

Fig. 1.33. *Dancing* (?) (10,000-8000/2000 BC), cave painting from the Cogul cave. Barcelona, Museo Arqueológico.

Fig. 1.34. Drawing by 6-year-old girl (1997).

Fig. 1.35. *Abydos Pilgrimage* (18th Dynasty, 1550-1307 BC), fresco. Thebes, tomb of Sennefer.

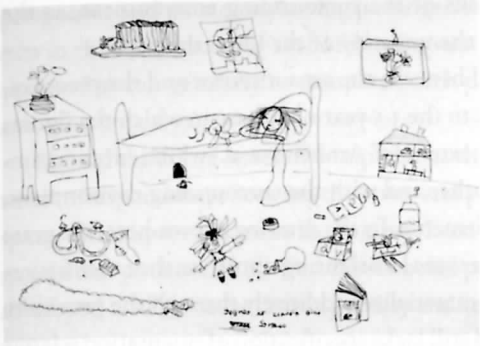


Fig. 1.36. Drawing by 9-year-old girl (1998).

Fig. 1.37. *Admetus and Alcestis* (*c.* 50-75 AD), fresco from Pompeii VI, 8 (Casa del Poeta Tragico). Naples, Museo Archeologico Nazionale.

Fig. 1.38. Drawing by 12-year-old boy (1973).

Fig. 1.39. Meindert Hobbema, *The Avenue at Middelharnis* (1689), oil on canvas. London, National Gallery.

of representational space specifications of the surrounding environment, as the surroundings more exactly comprise the underlay of the lines: the paper.

From this phase in the borderland between the sensorimotor and the preoperational stage, the child moves onwards to the 3-5-year-old phase in which the figures are inwardly differentiated to a greater extent (cf. Arnheim et al.) whilst entering simple spatial relationships with one another and with the surrounding environment, which is sketched out as object-like elements. In the drawing shown here, the grass at the bottom, for example, is given the same left-slanting upturn as the other figures (FIG. 1.32). This pictorial space, which materializes additively through the proximity or separation of the closed figures and still lacks specification of orientation relative to a visual direction, is thus a mature representation of the topological space, and so structurally it can be compared with pictorial space in the advanced primitive Meso- and Neolithic cultures (FIG. 1.33). As the child gradually reaches further into the preoperational phase, at the age of 5-7 years, this additive topological space is, however, tightened up by simple projective features such as baselines seen in sectional view, covering and orientation after abrupt combinations of the two main visual directions: mapping gaze and panoramic gaze (cf. Luquet's intellectual realism) – in other words, features that are structurally equivalent with the archaic intermediate stage of phylogenesis, for example Egypt (FIGS. 1.34-1.35). In the child's drawing shown, the figure is seen in panoramic-gaze profile, whereas the road he is standing on is seen from a downward-looking mapping gaze; similarly, the placing of the flowers above one another in the picture-plane is enough to indicate their retreat into the depth. The close connection between this manner of depiction and mental space representation is again pointed out by the many examples in Piaget and Inhelder in which younger children are asked about the appearance of different objects when viewed from oblique angles. Even though now and then the children verbally articulate an understanding of the problem, they still consistently draw the object as seen from the side, whence it appears whole and not distorted.[101]

After the child from the age of 7 years comes under the influence of the concrete operational stage, and is thus able to reason with more autonomous thinking, its visual world becomes ever more influenced by the projective-Euclidian space with its subjective viewpoints and perspective (Luquet's visual realism). In the drawing by a 9-year-old girl (FIG. 1.36), we therefore notice that many of the things in her bedroom show perspectival effects as the result of a combined front and side gaze, and that the window gives access to a whole scenic vista towards the silhouette of the town under a cloudy sky with full moon. And yet the parallel side lines of the objects do not meet in actual vanishing points, but each belongs to a local space and so, in a phylogenetic respect, we can translate this period to the vicinity of the advanced intermediate stage: antiquity and the Middle Ages (FIG. 1.37). A unifying

perspective and an accompanying homogenised projective-Euclidian space first occurs in children's drawing at the formal operational stage, 12 years of age (FIG. 1.38) – a stage that can gainfully be compared with phylogenesis' modernity between 1420 and 1900 (FIG. 1.39).

Should the above series of comparisons thus seem to expose a number of structural correspondences between the onto- and phylogenetic developments of pictorial space, certain provisos must be declared. Even though perspectival pictorial space is an inherent potential in all Western-schooled people, it will by no means become fully developed in all, because drawing ability and environmental stimulation will vary. As opposed to large tracts of phylogenesis, ontogenetic assimilation of representational space occurs conversely in an environment that, until its final stage, represents a more advanced pictorial culture and must therefore inevitably 'contaminate' it with some rubbing-off from later stages. This seems to be especially noticeable from a landscape-oriented angle, as in its ontogenesis we can search in vain for a parallel to phylogenesis' hesitation to depict celestial phenomena such as clouds, rain and sun – motifs that actually appear at an early stage in children's drawings. At the same time, it must again be noted that similarities between the two systems only concern the overarching structural equivalences, and that there are many differentiations within each phylogenetic stage which are not reflected in the ontogenesis (Palaeolithic 'naturalism', antique ideality, medieval 'neoprimitivism', etc.). On the other hand, Luquet's "synthetic incapacity" also finds only selective parallels in the ontogenesis (Mesolithic diagrammatic figures, for example). To give a more detailed account of these issues is, however, beyond the scope of this book.

1.3 The pole of remoteness: pictorial space as world picture up until antiquity

A chronological scanning

Now that my analysis of the evolution of the pictorial view has firstly been qualified by a gaze seeking out the middle ground – the social sphere – and then a gaze seeking out the inner ground – the perceptive consciousness – I will pan in the completely opposite direction, from the soul through the social sphere to the most distant environment: the cosmos in its entirety. Just as the individual's perception of the world is dependent on self-consciousness and social situation, so it is also determined by positioning in a wider terrain – a terrain of a both tangible and metaphysical nature: the *world picture.*

In terms of definition, the world picture could be said to be a given epoch's conception of cosmos in its totality and the position of humankind and gender in this totality. A persistent ingredient in the world picture is the question of the nature of creation – how nature and humans conceive and produce their goods, and how the respective means of creation relate to one another. Presumably the world picture of different cultures goes through a series of phases which are just as universal as those gone through by the pictorial space, but, again due to considerations of scope, I must confine myself to a study of the Western domain.

The fundamental idea linking human to world picture until modernity is that of nature as a *body* – a body with exactly the same properties as its smaller sub-organism, the human, simply on a larger scale. So when the I, in the course of developing consciousness, begins to break away from nature and world, the divide affects both this macro-body and the I's own corporeal environment. This means, in the widest sense, the material body in its totality – the soul becomes alienated from the body – but as consciousness is sensed chiefly in the head, the divide particularly affects a distinction between the head-based I and the body below the neck, which holds this head aloft. Thus, it also becomes clear how consciousness drives its wedge into the body of the world, for in exactly the same way as the head-based I is separated from the human body, so the upper part of the world body, the heavens, begin to separate from its lower part, the earth. The spirit, which allows the I to triumph over the body, is identical with the celestial light, which overarches the earth's body.[102]

As Erich Neumann and his feminist-oriented successors Anne Baring and Jules Cashford have shown, division of roles between spirit and matter is not merely a question of the developmental stage of self-consciousness, but also of their connection to gender, including the role of gender in conception and production. If I found, in my study of the cognitive aspect of consciousness, that ontogenesis' increasing autonomization of consciousness recalled the autonomization that had already been undergone in phylogenesis, then I am able to ascertain a similar parallelism within a psychoanalytical framework of the evolution of consciousness. Separation from the mother and identification with the masculine order that determines consciousness's first autonomisation in ontogenesis can thus be compared phylogenetically with the aforementioned cosmological division of the world body: the mother body, from which the I withdraws in its initial endeavours to achieve independence, here comprises earth's matter, whereas the father figure, which ensures a growing autonomisation of consciousness, is occupied by the heavens, the spirituality of which increases in step with their own emancipation from, and control of, the earth. This gender-determined emancipation of consciousness also has gender-ideological consequences as, in addition, it entails a gradual displacement of the seat

of creation, the place of origin of what I will here call the *power of conception*: where this creative power in its origin stems from the androgynous and self-fertilising earth – Neumann's *uroboros* – it is displaced through the opening division between matter and spirit to the latter; i.e. it becomes the *immaterial* conception of both semen and thought.[103]

As a phylogenetic parallel to ontogenesis' original symbiosis with the mother – a merging into a universe with no differences – the primeval *uroboros* world body was still whole and unmarked by gender difference. In Neumann's words: "It slays, weds, and impregnates itself. It is man and woman, begetting and conceiving, devouring and giving birth, active and passive, above and below, at once."[104] But as consciousness is gradually brought forth, separates out from the world body and looks back towards the already lost unity, this no longer appears as purely androgynous, but rather as feminine. In Piagetian terms, these very initial stages of consciousness – the Palaeolithic subject – can be identified with the end of the sensorimotor phase when it is just this lack of distinction between consciousness and environment that is challenged. If we zoom out to the cosmological perspective and widen the lens by way of the gender consciousness of psychoanalysis, we will then find this subject inscribed in a world that, across the board from the depths of the earth to the heavens, functions as an androgynously-inclined female body: a self-fertilised womb from which all life stems. That the heavens themselves were inscribed in this feminine cosmos is indicated by archaeological finds of stone and bone calendars on which the engravings keep an account of the lunar cycle.[105] With its cyclical appearance and disappearance on the dark night sky – a rhythm that corresponded with woman's menstruation – the moon manifested its pact with the Great Mother's element, the dark earth, as, in a similarly cyclical manner, the earth was not merely the womb, from which life grew, but also an underworld, to the depths of which the creation had to return in order to be revitalised. Judging by anthropological studies, this female monopoly of the life cycle was due to the fact that the male contribution to reproduction had yet to be – or at least had only just been – discovered, an awareness that depended on an interaction of observation, memory and the faculty of combination, in short: consciousness.[106] In this delayed understanding of the function of gender in reproduction it is also tempting to read a phylogenetic echo of ontogenesis, in which recognition of the parents' gender difference is indeed an unavoidable factor in separation from the mother.

Later, in the Neolithic period, when male fertility has been acknowledged with certainty and has become part of a more systematised outlook, we encounter a correspondingly more dualised world picture. Even though the functions of birth still belong to Mother Earth, experience of the new pursuit of agriculture now reallocates the fertilising power – conception – to the heavens. In the same way as the woman

is fertilised by the man, the earth also seems to be rendered fertile by powers from on high: sunlight, rain, wind and seed. As Aeschylus later wrote:

> The holy heaven yearns to wound the earth, and yearning layeth hold on the earth to join in wedlock; the rain, fallen from the amorous heaven, impregnates the earth, and it bringeth forth for mankind the food of flocks and herds and Demeter's gifts; and from that moist marriage-rite the woods put on their bloom.[107]

It must be noted, however, that even this celestial fertilisation function was long thought to be born and absorbed by the earth, so that the body of the earth still, as in its primeval *uroboros* state, could be said to fertilise itself. In the Great Mother cults (with historical incarnations such as Isis, Innana/Ishtar, Tiamat and Cybele), where marriage between heaven and earth, *hierogamy*, was realised, the goddess's frail partner therefore performed a double role as son and lover – a role in which the wintry fertilisation, penetration of the earth, involved a sequence of corporeal molestation, decomposition and renewed birth (resurrection). In a cosmological perspective, this caused the male partner to be split between being partly an aspect of the moon with its cyclical coming into existence and decomposition, and partly an incarnation of the more stable and thus more masculine disc of the sun.[108] Even in the latter configuration, the masculine principle was nonetheless subject to the female cycle for, as we still see with the Egyptians and Sumerians, the masculine sun is absorbed into the underworld womb at night in order to be reborn the following morning. Erich Neumann notes: "In the matriarchal sphere, the daytime sky is the realm where the sun is born and dies, not, as later, the realm over which it rules."[109]

By this means the Neolithic reproductive cycle is again linked with the preoperational stage, in which a fundamental feature was that consciousness has, to be sure, expanded its effective radius to a systematized symbolic world – the mythical universe of tribal cultures – but has yet to separate out any fundamental difference between thought and surrounding world, concept and nature. Pointing out that the power of conception, irrespective of how much it reaches outwards to the heavens, still belongs to nature – Mother Earth's womb – is, in fact, the same as saying that it is not stabilised in an actual beyond, i.e. a world *behind* and *outside* nature, which, as we know from Habermas, is a prerequisite for the concrete operational stage.

While in the Neolithic period and the Egyptian culture, then, there would still seem to have existed a form of equilibrium between man's and woman's contribution to reproduction, the power of conception gradually shifts exclusively to man's – and the heavens' – domain, becoming an immaterial dynamizer of the earth. The concrete operational stage can now be said to have been reached since this displacement is connected with a new concept of the heavens as the domicile of immutability and

perfection: an intelligible beyond, on the basis of which a universal truth is sought. Thus the Babylonians thought that the heavens, including their sun and stars, are incorruptible, and that the earth is merely a reflection of the celestial cosmos.[110] In this world picture, which culminates in the Judaic, Greco-Roman and Christian cultures, the earth has become passive, if not malignant matter subject to the celestial fertilising, designing and controlling influence. As Camille Paglia explains in her 'anti'-feminist reading of the cultural history of the chthonic, in this perspective nature quite simply appears to be identical with the feminine,[111] which means that cultural evolution until the Middle Ages can be described as man's continuingly intensified battle against feminine otherness: the formless chaos of nature.

The feminist anthropologist Marija Gimbutas sees the initial phases of this development as a result of a ferocious upheaval in which the settled, agricultural goddess culture was supposedly invaded by celestial-worshipping nomads, the Kurgans from the Middle Asian plains.[112] It is possible that a series of such invasions did take place, but if this contributed to the evolution of culture it is unlikely to have occurred via a unilateral transfer of ideas. Rather – as happened later with the fall of the Roman Empire and the subsequent migrations – it was effected through a new synthesis growing from the encounter between the two cultures. Nonetheless, it can be observed that contemporary pastoral societies are actually extremely patriarchal and generally believe in a supreme, male creator. Of pastoral societies, the evolutionist-minded sociologist Gerhard Lenski states: "No other societal type so closely resembles Judaism and Christianity in its conception of God."[113] Even though a detailed understanding of this issue would be of the utmost relevance to my thesis, I will have to refrain from assessing it here.

Evidence that celestial worship must be, at least partially, an integral component of the internal cultural evolutionary dynamics, is found in the fact that it interplays closely with a societal development that is already well underway in Egypt. Thus, the very hierarchical structure that follows in the wake of social transition from rural horticulture to state-controlled, plough-based cultivation, points in the direction of a dualised world picture: a world picture in which the heavens afford the elite the right to an elevated position above the masses. In this the king is seen as an envoy of celestial light, and the social pyramid in its entirety appears as a terrestrial reflection of the cosmic hierarchy.

In any case, my thesis will be that the displacement of this world picture from matter to spirit, from feminine to masculine, from *uroboros* to subject, corresponds with the separation of self-consciousness from the body, and thus also with the increasing depth of field of the image. As the original, wholeness-aspiring force of *uroboros* is drained out of nature to be transformed into spirit – an intellectual dynamizer of matter, which distributes itself between the cosmological heavens and

their local outlets in the soul of the human body – so the pictorial view is distanced from the surrounding environment.

Translated into pictorial space terminology, the development of the world picture could be grouped into the following ideal phases. The Palaeolithic period is still so immersed in androgynous nature, the *uroboros*, that this nature cannot be depicted at spatial distance. Nonetheless, it has to be noted that the first steps towards culture and the consequent isolation from a femininely-slanted nature are already taken here, as most Palaeolithic images are, as mentioned, painted in the innermost parts of caves, which very likely appeared as an underworld of feminine manifestation – a subterranean womb and zone of originality from which humankind at that point already felt cut off and therefore sought to return to and communicate with through fixing of Mother Earth's closer-to-nature brood: animals. This fixing can possibly be attributed an aspect of impregnation, of help with Mother Earth's conception, which would constitute a significant cultic function and, what is more, would tally with the painted animals and cave walls being on closely-allied levels of reality.[114]

The depiction of more distant, stationary natural phenomena such as trees, rivers and mountains, and the specification of the spatial relationships between these and the bodies that move among them, depends on an intensified separation of spirit and matter and a corresponding consolidation of the masculine side of the power of conception – the one which takes place in the Neolithic period, when the man fertilises the field and people become isolated in the artificial urban space. As I have already mentioned, Egypt freezes the early Neolithic stages where there is still equilibrium between male and female contributions to reproduction. The preoperational pictorial view might be able to frame its gaze across the surrounding environment, but the gaze still leaps quantum-like between mapping gaze and panoramic gaze as it did in pre-dynastic images. In order for the pictorial gaze to be able to depict figures seen against a background of land formations, the power of creation has to be shifted to the heavens alone. This is what is being consolidated when Naram-Sin approaches the stars of the heavens against the background of the underworld mountain, and the connection between heavens and gaze is carried on in the Greco-Roman and Christian civilisations, where the authority of the hereafter stabilises the formation of the first I-based gaze: the projective, panoramic gaze of the concrete operational stage.

The human world of both the Egyptians and the Mesopotamians was made up of the cavity that is left between the firmament and the earth's surface. But whereas the Egyptian firmament is personified by Nut, a goddess, who stood bent like a bridge over the earth which was incarnated by her lost twin brother, Geb (FIG. 1.40),[115] the Babylonian firmament was apparently divided into three spheres – seven, according to later specifications – where various deities and, at the bottom, the stars resided (FIG. 1.41). A similar division applied to the earth, with humans

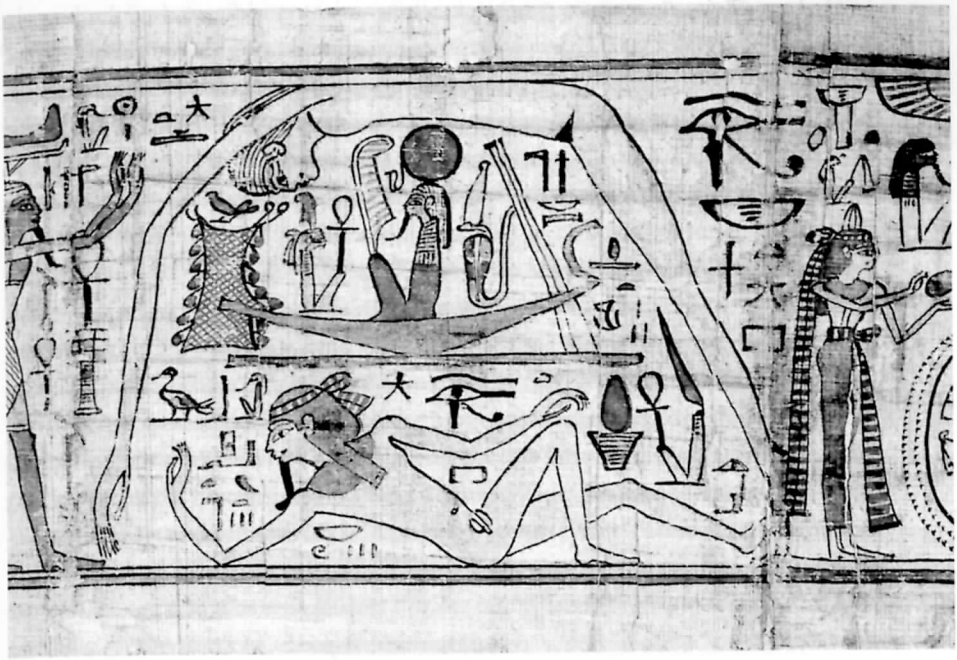


Fig. 1.40. The Egyptian world picture: Nut (the Firmament) bent like a bridge over Geb (the Earth); between these, the sun god Re in his boat (*c.* 1000 BC); painting on papyrus. Paris, Musée du Louvre.

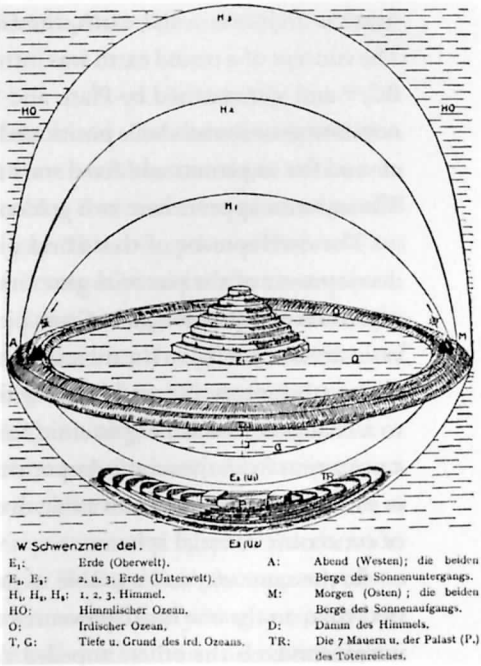


Fig. 1.41. The Babylonian world picture (after W. Schwenzner).

at the top, the water god Ea (Sumerian: Enki) in the middle, and at the bottom the actual underworld.[116] This symmetry conveyed the earth as a mirror image of the heavens – a weaker micro-cosmos vis-à-vis a perfect macro-cosmos – a dualism which in terms of representational space promoted expansion of the Egyptian near space to a look out towards land formations that created a background.

There are amazingly few elements in the Greco-Roman and Christian world pictures that are not to be found in Babylonian cosmology. From Aristotle in the 4th century BC to Ptolemy in the 2nd century AD, and on to the latter's West-European successors a millennium later, we come across the same indestructible heavens above the same corruptible earth. What the Greeks did was, in many ways, simply to systematise the goods that had been passed down, especially in relation to human nature.[117] The heavens were regarded as more perfect than the earth because they were linked with qualities of the soul as opposed to the by now lifeless matter. As demonstrated by the word *pneuma*, which means 'spirit', 'breathing' and 'air', the soul was compared to the breath of life, the dynamic warmth that vitalised matter's heavy elements: earth and water. This animating force increased as the system progressed upwards.[118] After the upward-seeking and yet still earthly elements of air and fire came the fifth element of the universe: the indestructible *quintessence* (alternatively known as *ether*) that formed the firmament of planets and fixed stars.[119]

Nevertheless – despite all common features – there is a crucial difference between the Greek world picture and its Babylonian predecessor: where the Babylonian heavens arch over a flat earth, the Greek heavens curve around a globe (FIG. 6). The concept of a round earth was introduced by Parmenides from Elea around 500 BC,[120] and systematised by Plato and his pupil Aristotle. The celestial spheres are now immense round shells positioned concentrically around the little earth – from air and fire to planets and fixed stars to *primum mobile*: the unmoved first mover.[121] The universe appears here as a golden apple with a rotten core.[122]

The development of this world picture would in turn seem connected to the development of the pictorial gaze since it happens at about the same time as the expansion of depth of field in Greek pictorial art, from the introduction of red-figure vases around 510 BC to the more advanced foreshortening effects in the second half of the 5th century BC; and here I will again suggest that this simultaneity is due to a change in the same epistemic *field* – a change marked, in terms of society, by a transition from theocratic despotism to a bourgeois, slave-based democracy and, in terms of cosmology, from a flat, overarched earth to a round earth in the centre of concentric celestial spheres.

In the same way as I was able to point out a couple of structurally related barriers that, on the one hand, prevented the pictorial space from opening up towards infinity and, on the other, impeded democracy from becoming universal, I must

also note a limit for the expansion of the world picture. Even though the classical world picture presupposes a consciousness of greater distances and has made the up-down direction determined by where one is located on the globe, the hierarchy is nevertheless preserved through the central position of the earth. The world picture is determined by orientation and direction, and these phenomena are inconceivable in an infinite and homogenous space where up and down, above and below, can at most be local concepts.

The limit of expansion is especially severe in classical geography – in the area where the concept of the earth's surface is combined with empirical experience of the same. The conquests of Alexander the Great and the Romans provided knowledge of a very extensive geographic area, from the Iberian Peninsula to India and from Scandinavia to North Africa, and yet – despite the concept of the globular earth – as a rule there was no notion of inhabitable areas beyond this domain: *oikoumene* ('inhabited earth', 'known world').[123] As a survival from the idea of the flat earth, the West was instead seen as encircled by a mighty ocean, the *Oceanus* river, which was connected with the underworld.[124] Crossing this ocean was considered a dangerous endeavour to no avail. Of the Pillars of Heracles, the twin rock promontories at the entrance to the Strait of Gibraltar, Pindar (*c.* 518-*c.* 438 BC) typically states:

> [...] so now doth Thêrôn by his deeds of prowess come unto the utmost verge, by his own true merit reaching even as far as the pillars of Heracles. All beyond that bourne cannot be approached either by the wise or by the unwise. I shall not pursue it; else may I be deemed a fool.[125]

Even speculation in other, unknown parts of the world – for example, a symmetric, southerly continent – did not lead to the notion that such continents were a continuous extension of the known world and ocean. They were seen more as parallel worlds, as if isolated from ours in a quantum leap. This conception of the world has again clear morphological kinship with the structure of pictorial space in antiquity, as both spaces – of the world and the image – appear as aggregations of islands, be these islands seen as continents or as fields of vision. Even though the roundness of the earth signals three-dimensional space, no greater slices of it are taken up than can be contained, like Riegl's normal sight, within a single frontal gaze.

The spatial limitations are also felt when the viewpoint is raised onto the cosmological scale, for in antiquity's world picture the heavens close around the earth in just as cavernous and vault-like way as in Mesopotamia and Egypt. It can therefore be taken in a quite material sense when Plato, in *The Republic* (7,7), compares life on earth with the existence of chained prisoners in a cave. Everything sensuous here comprises a false reality, shadows on the cave wall cast by the actual reality: figures

in front of a glowing fire outside the cave. This reality is the intelligible and imperishable one beyond the firmament, whereas the world of phenomena – Aristotle's later sublunar domain – is made up of weaker imprints of the celestial realm. As illustrated by the Mithras cult of late antiquity, in which the sacrificial bull is surrounded by a cave with associations to the firmament (FIG. 3.2), or by Porphyry's Neoplatonic exegesis of Homer, *De antro nympharum*, in which openings in the cave of the nymphs become an image on the soul's entrances to the world, this idea of the world as cavern is a regular topos far into the Middle Ages – so regular that Spengler even nominates it as the universal symbol for the medieval Arabian, so-called Magian culture.[126]

If a certain evolutionary logic has gradually been drawn in the analysis of the development of pre-modern world pictures, this logic will be confirmed, in conclusion, if I make the same detour as I did in analysing the evolution of pictorial space: turning the gaze from phylogenesis to ontogenesis. For precisely as the contemporary child seems to have gone through those sequences pertaining to consciousness and representational space which have been undertaken by culture as a whole from the Palaeolithic to our contemporary period, so too would the child seem to rove through culture's cosmological experience. In recent studies of the child's understanding of the shape of the earth, it would seem to be a general feature cutting across all cultures that the child's benchmark is some form of flat earth, be it hooped, rectangular or shaped like a pancake, based in water or dirt, or encapsulated in a heaven-like orb. As was also the case with the child's exposure to more advanced representational space, interestingly this cosmology and its accompanying 'naïve' up-down physics is not changed in any crucial way by the fact that Western children are actually initiated into the Copernican understanding of a round and moving earth at an early stage: the two cosmologies, then, will simply thrive together in a greater or lesser degree of schizophrenic solidarity until the child reaches a more mature juncture.[127]

Antiquity's philosophical legitimisation of closedness

In this section I will take a closer look at my narrative's provisionally latest stage of cultural evolution – classical antiquity – by elaborating in a specifically philosophical light on some of the conclusions I have drawn thus far regarding the status of pictorial space at this stage. I will thus re-collect a couple of the earlier threads – the empirical matter and relationship to evolution of consciousness of the pictorial space in antiquity – and link these with the thread we have just left: the relationship to cosmology. It is my impression that separating philosophy of consciousness from cosmology at this stage would not only be unfeasible, but also forced. The antique

concept of the soul is incomprehensible without the contemporaneous idea of the heavens, and similarly both have to be taken into consideration when Riegl's normal sight – the Archimedean point between open and closed, far-sighted perspective and tactile plasticity – is to be set in a philosophical framework. In practice, however, the examination will have an initial accent on the outer frameworks – cosmology – in order to zoom in on the beholding subject at a later point.

If we start with the open aspect of the pictorial space – the semi-developed perspective – we could clarify its hesitation in yielding to the outermost expanses by considering the dubious status which similarly surrounded its parallel in philosophy: the new concept *infinity*, introduced *c.* 570 BC by the pre-Socratic Anaximander of Miletus. As Spengler demonstrates, based on a detailed analysis of the understanding of number and space in antiquity, the concept of infinity remained an alien beast for the ancient philosophers who never freed themselves from thinking in isolated bodies.[128] The historian of mathematics Tobias Dantzig does not disagree: "The infinite was taboo, it had to be kept out, at any cost; or failing this, camouflaged by arguments *ad absurdum* and the like."[129] Plato tried to tame the concept of infinity by collating it with the archaic world picture. For Anaximander, *apeiron*, the boundless (from Greek *peras*=limit), had denoted the primordial matter from which everything derives and into which everything perishes, and as Plato considered matter to be the domicile of formlessness, *apeiron* became identified with that and opposed to the celestial forms which Plato considered as limiting in a positive sense.[130] So the heavens constituted the good and limited that brought order to the baser and limitless.

In Aristotle's view, however, infinity was too unbridled a quantity merely to stow away at the bottom of the world system. It is true that he was of the opinion that the world was timelessly unlimited – that is, eternal – but in the spatial domain he would only grant infinity potential existence, not an actual realisable one. In principle there are no limits as to the extent of dividing up matter or making existing bodies larger, but at a given moment what is left is always a finite and not an infinite quantity.[131] Because he distinguished between earthly and celestial phenomena, however, Aristotle still took into consideration physical limitations imposed by the firmament. Outside the outermost celestial sphere "there is neither place nor void nor time".[132] In the *Nicomachean Ethics* there is even a Platonic echo: "For evil is a form of the unlimited, as in the old Pythagorean imagery, and good of the limited."[133]

Aristotelian philosophy could, all in all, be seen as a legitimisation of the closed aspect of the pictorial space in antiquity. Finiteness is one element, another is that Aristotle thinks more in single spaces than in a unified, homogenous whole. Aristotelian 'space' comprises the *place* (*topos*), which can be described as the space

occupied by a body. Aristotle compares this to a container and a liquid: as the same cup sometimes contains water, sometimes wine, so can the same place contain different bodies. However, Aristotle knows nothing of void in an absolute sense as the place always characterises a limit, an area of demarcation between two bodies. The Aristotelian universe is thus not a void into which something is put, but rather an aggregate of places, a topological accumulation in the style of antique pictorial space.[134] In support of this interpretation, Spengler notes that antiquity lacks any word at all that is the equivalent of the modern *space*: a void independent of material objects and fundamentally without limitation.[135] If we look at what perhaps comes closest to being a candidate, the Greek *chora* (=Latin *spatium*), we again find that it refers to the distance, the intervals, between bodies rather than an absolute void, and that it can also denote the terrestrial ground or land beyond the city (as is the case with, for example, Xenophon and Demosthenes).[136]

Not even Aristotle's main opponents, the *atomists*, had a concept of infinity in the modern sense. As far as Democritus and his successors, the Epicureans, were concerned, infinity was indeed a given thing in all areas other than the micro-world. This, they thought, must consist of indivisible units – atoms – because otherwise there would be absurd accounts of infinitely dividable things which, put together, became infinitely large. On the other hand, they thought that there was an infinite number of atoms with a limitless number of forms, and that the atoms rushed around in an infinitely extensive void. Nonetheless, it should not be assumed that the modern universe is just within reach, because when the atomists are to clarify their new infinite world all they do is to multiply the old one, which Parmenides had already abandoned. The Epicurean universe is a serial universe of flat earths domed by round heavens. As such, its earths do not behave differently from hypothetical continents assembled in an aggregate space. The extent to which the idea of the whole is influenced by the individual parts is also apparent from considerations of the dissemination of the atoms in the infinity. Lucretius, who provides the most comprehensive extant testimony to the theory, does certainly speak of identical conditions in the heavens and on earth, and yet his rain of atoms is incorrigibly controlled by a universal *downwards*, an idea that precludes the lack of orientation of modern infinity.[137]

In the images as well as the philosophy of antiquity, there is thus a suggestion of a world that has dipped into and, to a certain extent, absorbed infinity into its organism without, however, really being able to digest this mysterious specimen. Therefore when, around 280 BC, Aristarchus of Samos launched a pre-packed *heliocentric system*, shoulders could but be shrugged: Would everything not fall off a rotating earth? Would it not be possible to see parallax differences to the fixed stars in the earth's very wide track around the sun? The staggering distances to the stars,

which were necessary to explain the absence of such differences, were quite simply beyond contemporaneous experience. On the consequences of the theory, Ptolemy stated that they "are too ridiculous even to imagine."[138]

Resistance to these gaping cosmic expanses was a result of, *inter alia*, the fact that cosmology in antiquity never leaves the idea of holism. Between heavens and earth, spirit and matter, there is a force – *eros* – seeking to fuse them together so that matter is infused with spirit and formlessness is given form. In *Symposium*, when Plato allots a spherical shape to the original, androgynous whole from which the two current genders are cut, we see unmistakable associations to this kind of cosmological fusion.[139] There is quite a paradox in this urge: together with the longing for the androgynous fusion of spirit and matter, celestial spirit *in itself* is also, as we have seen, identified as the ideal. The split is a tragedy, and yet one part of the division is elevated to the independent perfection that was believed to have existed before the splitting in two.

From this ambivalent line of thought it is possible to construct a bridge from the world picture and into that aspect of pictorial space in antiquity which does not merely hesitate to make perspective fully infinite, but which actively promotes closure. For the visual ideal in antiquity is correspondingly focused on the celestial, at the same time as it seeks a synthesis of form and matter. Its forms are *bodies*, closed units, which, like micro-cosmoses, reflect the delimited macro-cosmos. As, on both a macro- and micro-cosmic scale, the ultimate corporeal ideal of the body in antiquity is the human body, this will influence all the pictorial works of the epoch – from the temples with their body-like columns, to the anthropomorphic sculpture, to the painting that never leaves the figural sphere. This corporeality preserves the material presence of the idol – the totem figure – at the same time as reflecting a reality – the ideal existence – that is elevated above earthly matter.

This peculiar duality is excellently analysed by Camille Paglia who, with inspiration from Nietzsche, links its celestial aspect with Apollo, while the earthly chaos, the chthonic, is placed in the charge of Dionysus, god of the underworld. Thus the antique statue emerges as an entity in which Dionysian formlessness is subjugated the Apollonian gaze, a luminous vision that aggressively accentuates contours and surfaces.[140] To this, along with Rudolf Bultmann, one can add the observation that *idein* (to see), *idea* (appearance) and *eidos* (image) are etymologically related terms, the Platonic concept being exactly such a hyper-image.[141]

The sense of sight that here reveals itself to be so cognitively essential to antiquity must absolutely not, however, be confused with earthly viewing. Rather than a sight that is restricted to specific, limited vantage points, we are dealing with a tactile sight that *grasps* an object in its entirety, like a blind person feeling her or his way. When Oedipus is blinded, his wish is that he could touch his

daughters: "Could I but blindly touch them with my hands, I'd think they still were mine, as when I saw."[142] Of the Greek, Spengler remarks: "He *felt* the marble with his eye."[143]

For this sight to work, its objects are conversely required to be closed and delimited bodies. As Spengler points out, antiquity's perception of the world, from art to philosophy of nature to mathematics, is steeped in this form of manifestation:

> Classical number is a thought-process dealing not with spatial relations but with visibly limitable and tangible units [...]. Every product of the waking consciousness of the Classical world, then, is elevated to the rank of actuality by way of sculptural definition. That which cannot be drawn is not "number".[144]

A contributing factor to this corporeal – and not abstractly spatial – perception of number is, *inter alia*, that the Greeks are only familiar with natural (whole, positive) numbers and see fractions as the reciprocity between whole lengths. When single bodies are divided, this occurs harmoniously, i.e. in such a way as the parts clearly adapt to the whole. This proportioning recurs in art, for example, in the closely-related terms used in architecture, *eurhythmy* and *symmetry*, derived from dance and sculpture; for as Vitruvius writes, both relate to the harmony that occurs when every detail is consistent with the whole: "As in the human body, from cubit, foot, palm, inch and other small parts comes the symmetric quality of eurhythmy; so is it in the completed building."[145]

The same line of thought is also found in Aristotle's *Poetics*, in which he makes the claim that a tragedy should be complete and closed with a beginning, middle and end. Moreover, a bridge is again constructed from proportioning to sight, as:

> Besides, a beautiful object, whether an animal or anything else with a structure of parts, should have not only its parts ordered but also an appropriate magnitude: beauty consists in magnitude and order, which is why there could not be a beautiful animal which was either miniscule (as contemplation of it, occurring in an almost imperceptible moment, has no distinctness) or gigantic (as contemplation of it has no cohesion, but those who contemplate it lose a sense of unity and wholeness), say an animal a thousand miles long.[146]

This invaluable key passage makes it quite clear that an object can only be beautiful if it comfortably occupies the field of vision – blends into it, as it were. Is it possible to imagine a clearer definition of Riegl's antique normal sight – which is neither too close to nor too far from the object being viewed? In this self-evident filling-out of the field of vision, the possibility that the viewpoint might have

any significance is repressed, for as a reflection of an intellectual principle – in Platonic terminology: the ideas, the celestial hyper-images – the ideal plastic form is assimilated independently of distracting sensory factors. Even though it is formed within the three dimensions of space, ideally it can be captured in a single gaze. The assimilation is thereby reminiscent of antiquity's perception of the earth globe, which might be round, but which nonetheless has its focal point in the inhabited world, *oikoumene*.

This visual approach can also be described in a *temporal* sense. The typical classic image is *narrative*, i.e. it deals with figures taking part in a temporal action. In the same way as the image focuses on the corporeal, it only incorporates figures and things that directly support the action and distil it to a pregnant present – i.e. one pointing both forwards and backwards. If we again turn to Aristotle's *Poetics*, we will notice that Aristotle accordingly puts poetry above history. Where the poet has to select and put together incidents in a meaningful sequence, the historian is limited "not of a single action but of a single period, with all the events (in their contingent relationships) that happened to one person or more during it." Being a poet, however, Homer wisely abstained from trying to treat the Trojan War "in its entirety, for the plot was bound to be too large and incoherent, or else, if kept within moderate scope, too complex in its variety."[147] And thus Homer in his poetry distilled just a selection of meaningful events. Aristotle therefore concludes that "poetry is more philosophical and more elevated than history, since poetry relates more of the universal, while history relates particulars."[148] The beautiful – i.e. the universal and true – is thus again concerned with unifying, with that which concentrates and distils. Here the superfluous is the contemporaneous which deflects attention from the meaningful point. Quite straightforwardly, this can also be described in visual terms as that which lies beyond the single gaze – the normal sight.

The observation made on this toning down of the viewpoint and the particular temporal aspect is quite consistent with Hegel's comments on Greek art. According to Hegel, classical art culminated in sculpture, because this art form is elevated above both individual gaze and time. Rather than, as in later romantic art, being condensed in a subjective viewer with his or her constant emotions, the spirit is revealed in its typical and eternal shape. As it does not mirror, but in perfect symbiosis subjugates matter, it evades the viewpoint, the subject's temporal look-out position. My earlier comment on Greek sight as a blind person's *grasping* is appropriate here as Hegel observes that the Greek sculptures lack a focused gaze. Either they have no pupils at all, or the direction of their gaze is indefinable.[149] In his discussion of the nature of "the instant" in *The Concept of Anxiety* Søren Kierkegaard aptly sums up:

> It is remarkable that Greek art culminates in the plastic, which precisely lacks the glance. This, however, has its deep source in the fact that the Greeks did not in the profoundest sense grasp the concept of spirit and therefore did not in the deepest sense comprehend sensuousness and temporality.[150]

This point again conforms to my model of evolution. Because the Greeks had not lived through the culmination of spirit and its final emancipation from matter in the Christian and modern concept of consciousness, they also had to distance themselves from sensuousness and time – a pair of concepts that converge in the subject-bound point of gaze, the momentary sight.

Were I to historisise the patriarchal gaze, which Laura Mulvey and other feminist- and psychoanalytic-oriented scholars have extrapolated from Lacan's *eye* – the gaze of the symbolic order – the candidate for this vision would indeed have to be the antique normal sight (plus its successors in modernity's neo-antique movements) and not, as is far too often claimed, the fully-developed perspective.[151] For apart from a patriarchal gaze being induced by the Apollonian masculine heavens and forcibly upheld elite, Mulvey defines it as a centred vision that surveys and controls its otherness. This is precisely what the normal sight aims at: to structure the world in such a way that it can be captured in so frontal a gaze that this same gaze can be 'forgotten'. That the actual perspective – that of the distant sight – so often comes under fire from Lacanians and Merleau-Pontyian phenomenologists is hardly due to its own inherent properties, but rather to its neo-antique (mis)use by the Renaissance. Its own manner of appraising the world is, more modestly, from an *arbitrarily* selected vantage point, and what it sees of the world is by no means its totality, but merely what is *allotted to this corner*.

This interpretation can also be built upon by taking another look at Piaget's and Habermas' models, as here the psychoanalytic I's identification with the phallic order and oppression of female otherness could suitably be compared with the concrete operational stage, the subject of which, as mentioned, is stabilised via a convention-prescribing authority, be it the parents of ontogenesis or the patriarchal heavens of phylogenesis. In the fully-developed self-consciousness – the I of the formal operational stage – the authorities are, on the contrary, available for negotiation since all laws are recognised as subjectively based. In other words, significant branches of psychoanalysis would seem to lack an actual concept of modernity – an understanding that there is a consciousness, even a more autonomous one, beyond the phallic order, and that this consciousness comes to expression in a perspectival way of looking that applies a selective and not paramount gaze on the world.

That it is by no means inevitable that the perspectival gaze underpins a totalising concept of the world can also be illustrated by the way in which it is actually often

in conflict with the main figure in the epistemic *field* of antiquity: the closed body. The plastic statue can be said to be a closed body because it is not confronted with the problem of individual viewpoints, manifestations of subjective consciousness. The same is true of non-imagistic reliefs – *haut-reliefs* – as their universes are constituted by the figures themselves. But where does the closedness – the corporeal substance – now disappear to when the gaze upon it is removed to a distance in a spatial image? Does it continue to thrive in the shrinking figures out in the space? For it is evidently not transferred to the framed – and flat – visual impression of them?

This is the dilemma of antique painting. It is most 'classical' and philosophically correct when it approximates sculpture, i.e. appears as a sort of depicted sculpture that can be captured in a single gaze. If, however, surroundings, space and viewpoint are allowed to take over – as, for example, is the case in the illusionist stage architecture and in the Roman sacral-idyllic paintings – painting loses its plastic foundation and is plunged into a crisis of meaning.

By moving on to Platonic philosophy we will see that this crisis is indeed not confined to painting, but has swollen to such a degree that Plato has to denounce every form of imitation: painting, sculpture, spoken drama, poetry, music. According to Plato, images are only produced when the state has become feverish and indulges in superfluous luxury.[152] Thereby, his concept of image could be said to have become so philosophical – i.e. secularised – that it has given up appraising images on the basis of what was still their chief rationale in his day: that they embodied the deity. In relation to Plato, my considerations thus far of vision in antiquity must therefore to some extent be kept for the world of ideas and its more unmediated imprints on this side of the beyond – in addition to the natural world of things and organisms, also non-imitative craft – whereas the imitative image has in many ways cut off the umbilical cord to the ideas in order exclusively to imitate sensory objects: become copies of copies.[153] From the idea and its image, *eidos*, we move to the false depiction, *eidolon*. A philosophy that affords mimetic images a more direct right to the ideas and thereby re-buttresses their divine potential had to wait until Neoplatonism in the 3rd century AD.

For Plato the imitative image involves a random standpoint that depicts a restricted and distorted part of the character of the object. Even though the imitator would seem to be able to create anything, he understands "only a small part of the object and that a phantom".[154] For: "The same magnitude, I presume, viewed from near and from far does not appear equal."[155] The arbitrariness results in the mimetic poet "fashioning phantoms far removed from reality, and [...] currying favour with the senseless element that cannot distinguish the greater from the less, but calls the same thing now one, now the other."[156] In *Laws*, Plato compares the individual's random ideas on justice with this effect of illusion:

> Now distance has the effect of befogging the vision of nearly everybody, and of children especially; but our lawgiver will reverse the appearance by removing the fog, and by one means or another – habituation, commendation, or argument – will persuade people that their notions of justice and injustice are illusory pictures, unjust objects appearing pleasant and just objects most unpleasant to him who is opposed to justice, through being viewed from his own unjust and evil standpoint, but when seen from the standpoint of justice, both of them appear in all ways entirely opposite.[157]

To Plato's mind individual points of view thus make for injustice, evil, confusion, distance and the breakdown of proportion. The idea of the duplicity of viewpoint finds resonance in late antiquity with the sceptic Sextus Empiricus (*c.* 200 BC): "[...] for while we can, no doubt, state the nature which each object *appears to possess* as viewed in a certain position or at a certain distance or in a certain place, what its *real* nature is we are, for the foregoing reasons, unable to declare."[158] [My italics]

As an example of the distorted effect of the image, Plato also mentions large images or sculptures that can be looked at from below. In order to preserve the impression of beauty, the artist must here enlarge the upper parts, by means of which he maltreats the *true* proportions – which they do not even have for "eyes that could fully take in so large an object".[159] The same dilemma, albeit with a more generous judgement, affects the practitioners of the arts themselves. The theoretician of architecture Vitruvius might well demand that a building should be designed on the basis of the proportions in a closed entity, but in practice the stipulation of these rests on "best judgement" (*magnum judicium*), for the eye is often deceived by its sense impressions. As an architect Vitruvius must, however, take this – the individual – field of vision seriously.[160]

Plato is actually also aware of the apparent unity that appears via *skiagraphy*, another of the names for the illusionist painting (=shadow drawing). Not unlike Riegl's distant sight, he is thus able to describe skiagraphy as an effect of distance, creating unity in things that are otherwise split up and complicated when assessed from close proximity. In *Theaetetus*, for example, he writes: "Really, Theaetetus, now I come to look at this statement at close quarters, it is like a scene painting [*skiagraphia*]. I cannot make it out at all, though, so long as I kept at a distance, there seemed to be some sense in it." And in *Parmenides:*

> As with scene paintings [*skiagraphia*], to the distant spectator all will appear as one thing, and seem to have the same character and so to be alike, but if you approach nearer, they seem many and different and this semblance of difference will make them seem different in character and unlike one another.[161]

Again we hear the implication that the image of imitation is false. Knowledge is not to be gained from a distant overview – that of the distant sight – but by investigating the objects of the world separately.

All in all, it is therefore not strange that perspective never fully crystallises in antiquity, because perspective provides the geometric foundation for the individual viewpoint and is thereby the enemy of things' own proportions. Poor proportions, individual viewpoints and spatial images – all are part of the same problem.

Because Plato considers vision characterised by distance to cause *confusion* and problematise skiagraphy – *shadow drawing* – as a result of its illusory homogenisation of objects in the surrounding world, we are naturally led to make a connection with his cave myth, where the earthly phenomena in themselves are already described as shadows of the real things beyond the cave. Thereby, the confused distant view and the skiagraphy appear quite literally as shadows of shadows. Perhaps it is also these shadows that are alluded to in Lucretius' description of the perspectival foreshortening in which "the vanishing point of the cone" would seem to be a veritable black hole that relentlessly absorbs everything in the surroundings. Perspectival distance here is thus identical with being lost in the darkness of the underworld.

Shadows play a part, moreover, in the myth of the origin of painting. According to Quintilian, painting came into being when the painters traced the outlines of shadows which had been cast in sunlight.[162] Should it be a coincidence that painting actually came into being in the innermost of the Palaeolithic caves, at maximum distance from the light beyond the cave?[163] If the shamanism theory has relevance, we have however to note that, in its primordial form, painting appeared as imprints – shadows – of apparitions that were forced out from the mass – the underworld – on the other side of the cave wall's membrane. Whereas here painting seemingly fixed the power of conception directly in the feminine matter, in the patriarchal world picture it has however reached as great a distance from this power as is imaginable. The power of conception is now wrested from the matter and isolated in the celestial ideas and, as these leave only weak imprints in the subterranean matrix – the firmament cave – anyway, then painting, their optical imitation, becomes the shadow of shadows. In more than one sense, painting is skiagraphy.

The skiagraphy constitutes a borderline condition in which the expansive and equalising space takes over at the expense of the body, but antiquity is, as mentioned, sceptical of this kind of space and feels most comfortable with the delimited *topos*, the place that is not independent of the body, but encloses it like a container around a liquid or like a glove around a hand. As both the world and its microcosmic depiction – the body – are closed, *finite*, then this their apparel must be too: the infinite is banned in antiquity. We could also, with a Greek term that Kant and later Derrida contemplated, give this quasi-space the label *parergon*, the secondary

work, which belongs to *ergon*, the actual work.[164] *Parergon* could be said to be the connecting link between work and world: indispensable to the work – the body – and yet inconceivable without this. *Parergon* incorporates ornamentation, setting and indeed everything that can be called *surroundings*, including – and not least – the landscape. Strabo mentions that when Protogenes of Rhodes, Apelles's rival, had painted a satyr at the side of a column with a partridge on top, this partridge was the object of quite a lot of admiration from the people of Rhodes: "But when Protogenes saw that the main part of the work [*ergon*] had become subordinate [*parergon*], he begged those who were in charge of the sacred precinct to permit him to go there and efface the partridge, and so he did."[165] According to Pliny, this same Protogenes added small depictions of warships to his murals in Athens, "in what painters call the side-pieces [*parergia*]".[166] The side-pieces (*parergia*) in this case were presumably background sections (although it cannot be ruled out that they were independent ornamental areas separated from the main scene).

The classical image tradition is classical, then, for the very reason that it incorporates an *ergon* sustained by a *parergon*. Even the most scenic of Roman sacral-idyllic paintings is never quite devoid of figures (cf. chapter 6), precisely because that would amount to draining away *ergon*. It is only in connection with limited views – i.e. with potential rather than actual depth of field – that figures vanish, as in that case the natural elements become so corporeal, possess so much *numen*, that in themselves they assume the role of *ergon*. A mountain alone can play the role of *ergon* in a plastic simulation and within the framework of a shallow image, but as the depth of field unfolds in actuality and the image takes on the character of a vista, the mountain is transformed into *parergon*, and thus a human body is required (cf. my discussion of the Sumerian steatite vase, above). Although Plato denounces illusionist images in their entirety, he is sensitive to just this distinction between body and surroundings. In *Critias* he is sarcastic about the way in which the artist, when painting things such as "earth, mountains, rivers, woodland, the sky as a whole, and the several revolving bodies located in it", is satisfied with a poor degree of resemblance; just as his public, because they only have limited knowledge of such things, is satisfied by "a dim and deceptive outline" – i.e. again, of illusory skiagraphy. When, however, it gets to "our own human form", daily observation enables the public to notice mistakes quickly and show themselves to be "severe critics of one who does not present us with full and perfect resemblance."[167]

In conclusion I thus have to say that even though antiquity never fully developed the perspectival image, a number of its basic properties did get discussed. Yet scrutiny of these discussions reveals why perspective had to remain incomplete: it was on a collision course with practically every doctrine of the time – the closed

plastic body, the non-subjective origins of ideas, the geocentric world picture, in short, the basic template of antiquity's epistemic *field*.

1.4 Celestial infinity: pictorial space, consciousness and world picture in late antiquity and the Middle Ages

From an evolutionistic standpoint, the pictorial space of late antiquity and the Middle Ages is quite a mystery. On the surface, it could resemble a complete subversion of its antique forerunner, a regression to a more primitive mode of sight. And yet a closer examination reveals that examples equal to the antique experiences of space are still to be found in one form or another. Even in the most zealous eliminations of pictorial space – those of insular and Ottonian manuscripts (6th to 10th centuries and 10th to 11th centuries respectively) – there are still three-quarter profiles, chairs set at oblique angles and billowing drapery: inventions that would have been inconceivable in the image culture prior to Greco-Roman antiquity (FIG. 1.42). Rather than being a question of effective oblivion, this is a form of deconstruction of the antique focus on the plastic – a deconstruction which, on the other hand, paves the way for the modern, subjective mode of sight.[168]

As Riegl and Panofsky underline, in Late Roman reliefs there is already a space indicated where the figures break away from the tangible surface of the relief in order to become part of a more abstract continuum. Even though this continuum appears flat in the Middle Ages, it nonetheless points from haptic-optic normal sight towards pure optic distant sight – in short, towards the subjective vision of modernity, with the picture-plane emerging as a projection of the infinite surrounding environment.[169] Furthermore, it should be noted that the depth of field in medieval pictorial space is in the process of incorporating yet another zone in the landscape environment: *the sky*, which, as we will see in chapter 3, has an insistent presence in most medieval images. Based as it is on gold grounds, coloured stripes or ornate patterns, this presence is certainly more symbolic than optic, and yet again it points towards a spatially more distant reality than that of the pictorial skies in antiquity.

Illustrating this development in relation to socio-historical evolution as such – the emergence of feudal society – would seem to be extremely difficult. I will here restrict myself to sketching in the consciousness-evolutionary innovation that accompanied the trans-social intentions of Christianity. Unlike antiquity, Christianity considered all people, irrespective of social origins, to be equal in the eyes of God;

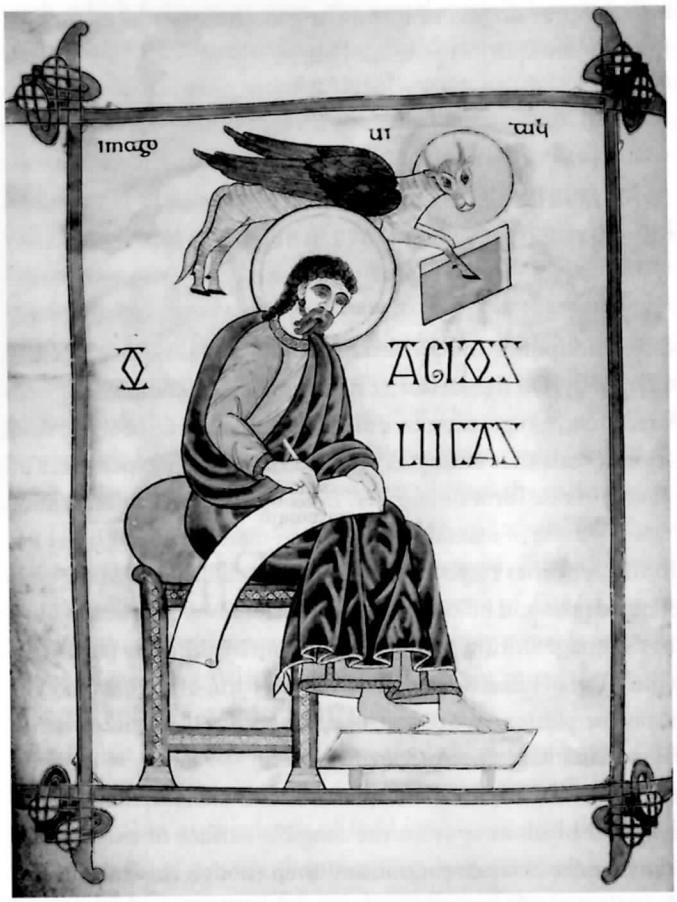


Fig. 1.42. Eadfrith, *Saint Luke*, from the *Lindisfarne Gospels* (just before 698). London, British Library, Cotton MS Nero D. iv, f. 137v.

indeed, it was actually in relation to God that the individual's human identity could emerge at all. Looked at via the history of religion, this God-human relationship fostered a more honed self-consciousness: the seed of modern subjectivity. If we now follow the evolutionary logic up to this point, we must expect that this increased interior shielding would be accompanied by a corresponding outward opening – an opening of the world picture. And this expectation is not disappointed.

Even if the Middle Ages and antiquity share a geocentric world picture, they part ways on an issue that is no less crucial than the one that earlier parted the round from the flat earth: the question of the system's *delimitation*. After the Hellenisitc

culture had come under the influence of the mystery cults of Asia Minor in the last century before the birth of Christ, the mental climate took a more transcendental direction: from a belief that the heavens could be approached via logic and common sense to a belief that it was fundamentally incomprehensible.[170] Most interestingly, the consequence of this was not a continued aversion to what had previously been such a problematic quantity: the infinite. As we already see in the case of the Alexandrian Jew Philo (d. *c.* 45 AD), infinity now became increasingly *identified* with that from which it had previously been excluded – the heavens – and thus the infinite flowed into one with the beyond and incomprehensible, at the same time as it differed from that which was accessible to the senses. The upheaval did not occur suddenly; as Jonas Cohn writes: "Slowly, rather, and half unconsciously that act is fulfilled which is so important for human thinking."[171]

In terms of cultural history, the significance of this change can indeed scarcely be overestimated, because paradoxically it involved the – temporary – stabilisation of the geocentric world picture by the very thing that threatened to break it up. Notice of the operation is given by the Alexandrine philosopher Claudius Ptolemy (*c.* 85-165). The kernel in his model is still the Aristotelian system; yet, he acknowledges the existence of a divine – and incomprehensible – infinity overarching the outermost celestial sphere, the *primum mobile*. Despite the incomprehensibility, in time this zone took on firmer contours. Pseudo-Dionysus the Areopagite (*c.* 500) reflects on a hierarchy of angels outside the visible heavens, and some Church Fathers imagine the whole system to be surrounded by the so-called *empyreum*, the abode of God.[172] That, for the time being, infinity posed no threat to the direction and hierarchy in the world picture was because it remained in the extrasensory domain. Thus, as far as early medieval writers such as Justin Martyr, Augustine, Maximus Confessor, Johannes Scotus Erigena, Pseudo-Dionysus or John of Damascus were concerned, what counted was and remained the total incomprehensibility of *intellectus infinitus*. As the latter writes around 700 AD: "The divine is infinite and incomprehensible, and the only thing which can be comprehended thereof is its infinity and incomprehensibility."[173]

If we again involve the medieval pictorial space, it can thus be seen as structurally similar to this cosmological thinking, which on the one hand extends the world picture with infinite, divine heavens, and on the other hand considers these heavens only partially attainable for our sensory world: the delimited world cave. Medieval pictorial depth of field is thus correspondingly extended towards a new reality, the sky, the super-sensory qualities of which are expressed via magnificent gold grounds, coloured strips and patterns. As a sign that this sky is, however, only a semi-permeable membrane for the divine infinity, it appears like a shielding curtain while at the same time the pictorial space is 'deconstructed', i.e. is drained of

Fig. 1.43. *World Picture of Cosmas Indicopleustes* (11th century, after 6th-century prototype), miniature. Monastery of St Catherine, Mt Sinai, ms Top. IV, 15b, f. 69.

Fig. 1.44. *The Great Hunt* corridor (*c.* 300 AD), floor mosaic (section). Sicily, Piazza Armerina.

the sensory specificity of infinity: perspectival depth. Whereas in antiquity, infinity constituted an unruly element of the world of phenomena, which could therefore half wrap itself around the pictorial space's figures in a quasi-perspective, in the Middle Ages it functions as a kind of divine magnet, which from its monopoly in the beyond removes surplus depth from the underlying sensory world cave: the pictorial space flattens out and infinity becomes only accessible to the senses in that symbolic mediation accounted for by the gold and other precious materials of the celestial surfaces.

Even though some Christian writers preferred the flat earth to Aristotle's and Ptolemy's round one – in his coffer-like section of the cosmos, Cosmas Indicopleustes in the 6th century, for example, concentrated the whole earth (Ge) to a world mountain sliding down in an *oikoumene* consisting of the Mediterranean, Arabic and Caspian areas (FIG. 1.43) – in the Middle Ages there was a stable consensus on this God's infinity.[174] Solid collaboration with Platonic philosophy is undertaken by the Neoplatonics, especially Plotinus (*c.* 205-70) who extends the world of ideas – the Intellect – with its infinite source of creation – the One – albeit Plato's formless matter hangs on like an unqualified issue: if both the source to the immaterial forms above and the primordial chaos of matter below are unlimited, why then is it only the former that is good?[175] Questions like this did not become topical, however, until the scholastic Thomas Aquinas put the system under close scrutiny in the 13th century, and the inevitable implosion comes into action: the celestial dike, which keeps infinity out of the worldly domain, bursts, and mortal earth, including its imprints in images, is flooded with the sense of distance.

God's retreat to an infinite beyond and the corresponding flattening of the worldly imprint, pictorial space, are already well underway before the great migrations and Christianity's takeover of the Roman Empire, and should therefore not be seen as results of these conditions, but rather as parts of the epistemic *field* that determines them. In a Late Roman work such as Piazza Armerina's mosaics (*c.* 300 AD; FIG. 1.44), it is as if the plasticity becomes blurred and is transformed into ornamental signs, while the landscape itself breaks up into isolated places against a white background: detached bushes, contours of hills, flickering shadows are the only specification of place. Later, in insular manuscripts such as the *Lindisfarne Gospels* (*c.* 698; FIG. 1.42), there is no reference to either outdoors ground or heavens.[176] As far as Byzantine image culture is concerned, this spatial deconstruction is less radical, but, on the other hand, the same spatial changes that occur in Western Europe after 1000 AD do not transpire here either.

With medieval subjectivity being mirrored in an infinite God, celestial reality could obviously no longer comprise closed forms such as the Platonic ideas. This observation is also of invaluable significance for medieval pictorial media as such

because, unlike antiquity, they could no longer place their centre of gravity in sculpture – the plastic reflection of the heavens – they had to turn unequivocally to the surface: to mosaics, ebony reliefs, miniature books, icons.

Whereas painting in antiquity was bound to imitation of earthly forms of appearance, the icon turns more frontally to celestial reality. Or rather: it becomes a zone of revelation, a field of refraction between this fundamentally unattainable world and us. The Byzantine *iconostasis* separates the believer from the Holy of Holies in exactly the same way as the sensory firmament excludes him or her from the ultimate bliss. It thereby has a similar function to the Jewish temple curtain, a connection that is, for example, mirrored in Byzantine versions of Veronica's veil – the so-called *Mandylion*. Here the likeness of Christ is attached to checked patterns which, as we will see in chapter 3, recall both the temple curtain and representations of the firmament.[177]

One conflict that the Middle Ages never solves, however, is where exactly the limit for revelation – and thereby the pictorial ground – should be set. Is revelation situated in the very far distance, just in front of the firmament, or is it closer to the eye and thereby the tangible surface of the icon? At the last pole, modernity lies in wait with its pictorial window, the projection of the infinite surrounding environment on a screen that inserts itself in front of the decisively subjective eye-point.

Jacob Wamberg

Landscape as World Picture

Tracing Cultural Evolution in Images

VOLUME I

From the Palaeolithic Period to the Middle Ages

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