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Early Visual Cultures and Panofsky's *Perspektive als 'symbolische Form'*

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This paper investigates the historical dimension of perspectival representations. It aims to provide a heterogeneous though comparative picture of culturally unrelated visual conceptualizations of pictorial spaces, written with a view toward explaining how the multiple modes of perspective were introduced in antiquity. Point of departure for this critical approach is Erwin Panofsky's essay *Die Perspektive als 'symbolische Form'*, published in 1927. His essay analyses the pictorial visualization of space and spatiality in different historical contexts, examining their cultural codification in terms of the heuristic category of 'symbolic form'. However, 'perspective', which is commonly understood as synonymous with 'linear perspective', deserves a new discussion in the context of diverse visual cultures: A 'naturalisation' of the gaze as it is suggested by pictorial spaces which function mimetically is primarily associated with the early modern period in Western art. Instead of merely re-reading Panofsky's canonical text, this paper presents an interdisciplinary re-viewing of a selection of the pictorial examples chosen by Panofsky, commenting upon their perspective(s) from different vantage points.

Perspective; Erwin Panofsky; pictorial space; spatial perception; cultural skill; visualization; diagram.

1 Introduction

Within the context of its aim to study spatial concepts in visual media of past historical periods in a comparative perspective, the research group *Pictorial Constructions of Space(s)* has analysed the phenomenon of the cultural and historical relativity of perspectival techniques of representation. Within Western art history, linear perspective is usually the starting point for a discussion of pictorial renditions of perspective, thereby often implying that this is the most 'natural' way of rendering human spatial perception pictorially. However, there is an immense variety of spatial-perspectival concepts in early visual cultures, and especially in those cultures which are seen as precursors within European art history. What is the significance of these concepts? Semiotically, every meaningful visual expression is awarded a character which is 'symbolic' in a wider sense.[1] This equally holds true for perspectival representation. The lack of a uniformed treatment of pictures from the ancient Near East, Greek and Roman antiquity and the Middle Ages in terms of perspective or viewpoint cannot simply be explained by artistic inability. Searching for contemporary ways of seeing or cognitive structures within these pictures means taking

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Section 2: Mental images and diagrams in Egyptian art: D. A. Werning. – Section 3: Rethinking Panofsky from an Assyrian perspective: Dominik Bonatz. – Section 4: Magnificent perspectives: S. Muth, N. Dietrich. – Section 5: Inverted perspective viewed from its beginnings: J. Fabricius. – Section 6: Looking through the wall: Th. Poiss. – Section 7: The Fountain of Life: T. Bawden, K. Gludovatz.

1   With Charles Sanders Peirce we can speak of 'iconic' signs if there is a resemblance to the signified or 'symbolic' signs in a narrow sense if there is no such resemblance (cf. Nöth 2000, 66, 179, 193–196).

into account spatial concepts and perspective systems above and beyond linear perspective and recognising these as autonomous means of diverse techniques of communication.

The starting point for this paper is a critical reading of Erwin Panofsky's influential essay *Die Perspektive als 'symbolische Form'* inspired by continuing debates within (art) history. It is not our aim to discuss Panofsky's ideas from the perspective of visual culture studies, as this has been done sufficiently by others.[2] Instead, we wish to evaluate Panofsky's argument with regard to the illustrations he uses, offering alternative interpretations and explanations. The analysed images and fragments of image and text stem from very diverse cultures and periods; nevertheless they can offer important insights for the central problem of perspective as an intended means of constructing space pictorially. Departing from historical models which are essentially teleological or linear, we wish to show that the historicity of perspectival modes of representation is central.

The canonical art historical text *Die Perspektive als 'symbolische Form'*, first published in 1927,[3] may be understood as one of the many hermeneutic attempts of the first half of the 20th century to connect formal characteristics of artworks with contemporary imagination and knowledge in a comparative perspective. The essay recalls formalist approaches of art historians such as Alois Riegl at the same time as anticipating Panofsky's 'iconology', developed systematically at a later date. The essay's detailed argument is at times speculative, postulating a knowledgeable reader. It brings together several aspects: the physiological and psychological prerequisites of human perception, scientific models in the fields of geometry and optics, artistic conventions of the depiction of space as well as philosophical and religious concepts of the constitution of reality.

It is the suggestive concept of 'symbolic form', borrowed from Ernst Cassirer, which, alongside the development of Panofsky's arguments in terms of emphasis and the openness of certain formulations has led to an extensive discussion of the essay, a discussion which still continues today.[4] Among other things, scholars have criticised the sweeping narrative of his account which emphasises the shift from the heterogeneous and aggregate space of antique and medieval art to the systematic space of linear perspective with the Renaissance, subscribing to an intrinsic logic of development.[5] Despite further developing Riegl's cultural relativism and ascribing to different historical periods and cultures their own perspective systems, Panofsky ultimately characterises them as qualitatively not on a par with Renaissance perspective.[6] The extensive consideration of optical, physical and psychological aspects of human perception has been revealed as leading Panofsky to sideline constellations of the relationship between pictorial space and the space of the viewer, constellations that differ from the *Winkelperspektive* he ascribes to the Greek and Roman periods of Antiquity, as well as the Middle Ages, and the window-definition of perspective in the Renaissance.[7] The universal applicability and adequacy of the principles of perception cited by Panofsky has also been questioned. For example, it has been pointed out that the spheroidal visual image he claims for Antiquity is the result in part of a misinterpretation of antique sources and does not correspond to the visual impression

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2   See especially the papers from the volume *Perspektiven auf die 'Symbolische Form': Eine kritische Relektüre des Panofsky-Aufsatzes* (Freytag et al. 2009).
3   Republished in Panofsky 1980 [1927], English translation: Panofsky 1991.
4   There is an immense amount of publications. See, for example: Holly 1984; Wood 1991; Mitchell 1997; Iversen 2005; Neher 2005; Thaliath 2005; Freytag et al. 2009; Kümmerling 2012.
5   Panofsky 1991, 65; see Freytag 2009.
6   The Middle Ages are termed as "the greatest of those 'recoils'"; Panofsky comments on "the gradual disintegration of perspectival space" Panofsky 1991, 47, 112–113 note 30 ("Zersetzung der perspektivischen Räumlichkeit" in the original: Panofsky 1980 [1927], 145 note 30).
7   See Büttner 2007; Freytag et al. 2009.

as it is verifiable through experiment.[8] Furthermore, it has been noted that consideration of medium-specific relativity of particular conventions of depiction has been neglected.[9]

Finally, Panofsky's conceptualisation of perspective as 'symbolic form' has met with fundamental criticism. According to Panofsky, who quotes Cassirer without discussing him in detail, perspective can be regarded as

> one of those 'symbolic forms' in which 'spiritual meaning is attached to a concrete, material sign and intrinsically given to this sign'. This is why it is essential to ask of artistic periods and regions not only whether they have perspective, but also which perspective they have.[10]

This use of the term, however, is not in accordance with Cassirer's concept: In the context of his neo-Kantian philosophy of knowledge and culture, bigger areas such as those of myth, science and religion were symbolic forms.[11]

It is notable that an in-depth discussion of Panofsky's arguments has taken place mainly within the art historical studies of medieval and modern art, while within classical studies brief, approving or dismissive accounts have predominated.[12] This is probably in part due to the fact that Panofsky's understanding of the culturally specific conventions of imaging in the art of the ancient Middle East, Egypt, Greece or the Roman Empire was fragmentary, along with the state of archaeological research at the time. It is therefore no accident that he does not refer to any monuments from the Near East, that Roman art is awarded a minor role, and that the example he uses for Egyptian art is a well-known garden scene from a Theban tomb (see Fig. 1) which is not in all respects representative of Egyptian art.

Even if one no longer wishes to subscribe to Panofsky's idea of an alternative, spheroidal, curved perspective of Antiquity – his basic understanding of perspective as a cultural convention remains undisputed today. The fact that his concept of 'symbolic form' is still relevant is evident when Karen Michels and Martin Warnke speak of perspective as a "conventionalised cultural symbol"[13], or Hans Belting terms it a "cultural technique."[14] A fruitful continuation of Panofsky's approach needs to *"unweave"* the "grand tapestry of 'symbolic forms'", of "[v]ision, space, world pictures, and art pictures", as W.J.T. Mitchell has demanded.[15] This is particularly important as the causal relations between these individual aspects often remain vague. A comparative-cultural engagement with antique and medieval two-dimensional images and their various perspectival systems of representation, which do not follow Renaissance linear perspective, is particularly well suited to re-evaluate Panofsky's arguments by replacing the cognitive epistemological framework with a historical one.

The aim of the following essay cannot, of course, be to provide a concluding evaluation of Panofsky's essay from the view of classical studies. Instead, taking as a starting point some works of art which Panofsky refers to and which his essay illustrates, the authors examine the individual problems of their interpretation in order to highlight possible insights into and deficiencies of Panofsky's argument. Instead of re-reading Panofsky's essay, we aim to re-view the examples he chooses for illustration. Surprisingly, while Panofsky's essay is seminal for art history, the works of art upon which he develops his

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8　On the spheroidal model, see Panofsky 1991, 30–36; cf. Hub 2008, 61–63, 80–83, 108–141.

9　Freytag et al. 2009.

10　Panofsky 1991, 41.

11　Belting 2008, 26; Hensel 2009; Lange 2009. Recent re-readings of Panofsky's essay have opened new possibilities of connecting Panofsky's and Cassirer's concepts, e.g. Neher 2005; Alloa 2010.

12　For example White 1956; Blanckenhagen 1963; Mikocki 1990, 67–69.

13　Michels and Warnke, in: Panofsky 1998, 757 ("konventionalisiertes Kultursymbol").

14　Belting 2008, 17 ("Kulturtechnik").

15　Mitchell 1992, 92. Cf. Lange 2009.

argument have not turned out to be as iconic within the discipline of art history.[16] This is all the more reason to take a new look at the works of art behind the *Perspective as Symbolic Form*.[17]

2   Mental images and diagrams in Egyptian art

According to the first sentence of the entry for *Perspektive* in volume IV of the seminal *Lexikon der Ägyptologie* (1982), perspective is an innovation with beginnings in ancient Greece, "a Grecogenic way of artistically rendering objects in space."[18] Thus, even in an encyclopaedia for Egyptologists, 'perspective' is thought to have no relation to Egyptian art. Similarly, Panofsky's essay had already buried Egyptian art in an endnote (note 24). Both Panofsky and the author of the article in the encyclopaedia, Emma Brunner-Traut, were significantly influenced in their interpretation of Egyptian art and in their view of the history of perspective by Heinrich Schäfer's book *Von Ägyptischer Kunst*, first published in 1919.[19] According to Schäfer, there are no clear examples of foreshortening in Egyptian art.[20] Panofsky's marginalization of Egyptian art may therefore be understood in this context. Unfortunately, Panofsky fails to acknowledge a more salient point of Schäfer's text: The latter argues that Egyptian art, as well as other art which was not influenced by the Greek innovation was essentially "conceptual" ("vorstellig").[21] Later on he characterises it in more detail as "with a straight-on view and conceptual" ("geradansichtig-vorstellig", shortened to "geradvorstellig").[22] According to Schäfer, Egyptian artists had aimed to express not a visual image, but first and foremost 'conceptions' or 'ideas' by assembling a collage of 'straight-on' views.[23] In her epilogue of the fourth edition of Schäfer's book, which was published posthumously in 1963, Brunner-Traut suggests replacing Schäfer's term "geradvorstellig" with "aspective" ("aspektivisch").[24] Her aim is to enable a comparison between 'geradvorstellig' art and other cultural, non-visual phenomena, and to reconstruct a communal aspective 'apperception' which differs fundamentally from perspective apperception.[25] Panofsky also assumes that "antique perspective is [...] the expression of a specific and fundamentally unmodern view of space [*German* Raumanschauung]."[26] Whether this is correct or whether it is only true of the *depiction* of space remains to be seen. In any case, the term 'aspective' is probably not suitable because it is potentially misleading – despite Brunner-Traut's argument to the contrary.[27] The term 'aspective' may mislead the reader to assume that it was a central aim of the artists to provide a '...*spective*',

16   The bad quality of the reproductions might be one of the reasons for this. It should be noted at this point that the corpus of pictures used in later editions of Panofsky's works is not always the same.

17   The selection of examples is based on the individual research interests of members of the research group C-4.

18   "[E]ine graecogene Weise künstlerischer Erfassung der Dinge im Raum", Emma Brunner-Traut, in: Helck and Westendorf 1982, 987–988.

19   Panofsky repeatedly referred to Schäfer's 1919 book in his notes (Panofsky 1991, notes 20, 24, 34). For Brunner-Traut's relation to Schäfer's work, see below.

20   Schäfer 1919, esp. 45–58.

21   Schäfer 1919, 195.

22   Schäfer 1963, 99; Brunner-Traut, in: Schäfer 1963, 401.

23   It is probably no coincidence that Schäfer (Schäfer 1919, 50–51) and Panofsky (Panofsky 1991, 142 note 24 iii) refer to Plato's comments on art. On Schäfer and Plato's Theory of Ideas (or Forms), see Liedtke 2001, 9–16.

24   Brunner-Traut, in: Schäfer 1963, 395–428.

25   Brunner-Traut 1990.

26   Panofsky 1991, 43 (Panofsky 1980 [1927], 109: "bestimmt[e], von der Moderne grundsätzlich verschieden[e] Raumanschauung").

27   Brunner-Traut (in: Schäfer 1963, 401–403) argues that the terms 'a-spective' and 'per-spective' sound well as a couple. She understands "aspective" as a "looking at" which is directed at a single element ("auf einen Einzelteil ausgerichtetes Anblicken") and as a single sight/view ("Einzelsicht"). At the same time, she

a view or a visual image (cf. the Latin *aspicere*, *aspectum* 'to look at'). That this is not the case appears to have been at least superficially recognised by Panofsky, who notes in regard to Schäfer's representation of "lateral and vertical 'staggering'" of objects and creatures, "that this is not actually to be interpreted as an oblique view, in fact not as a 'view' at all, but rather only as a row of outlines."[28]

What does a typical Egyptian image represent, then? John Baines takes Schäfer's approach further and speaks of "memory images", "visual schemata", "mental models", and "mental images".[29] The basic assumption is important: the mental image does not correspond to a perspective visual image, but it is more conceptual and therefore much 'grainer' (and, Schäfer would add, "geradansichtig").[30] Note that this analysis and the argumentations below mainly apply to the prestigious images, conforming to the elite decorum. Besides these, only few images have survived from ancient Egypt that try to imitate a visual image.

It is notable that many motifs used in prestigious images of two-dimensional art have an equivalent within hieroglyphic script. In this context, especially the ability of certain hieroglyphs to transport not phonetic but *semantic* content is of interest, i.e. their function as semograms (logograms or classifiers). It can be shown that two-dimensional ancient Egyptian art often has the character of what may be termed a 'hieroglyphic diagram'. The only Egyptian image chosen by Panofsky may serve as an example (Panofsky's fig. 16, here Fig. 1). Note that the modern outline drawing of the image which Schäfer and Panofsky used is not entirely true to the original (Fig. 2).[31] The following demonstration is based on a more accurate outline drawing (Fig. 3).

The lake scene contains typical shapes of the hieroglyphic signs ⬭, filled with ☰, also ⬭, ▯, ⬭, ▯, ⬭, ⬭, ⬭, o, ⊙, ⬭, as well as several instances of 𓆸 and ⬭ or ⬭ (Gardiner Sign List[32] no. N37 [cf. N39], N35, K5 [cf. K2], O21, P3 [cf. P1], O18, A21 [cf. A22], R7, W14, X2/X3, X6, R3, M1). In the order listed here, they carry the semographic meaning of 'lake', 'water', 'fish', 'sanctuary', '(noble) boat', 'shrine', 'noble man', 'incense', 'libation vase', 'bread', 'loaf', 'table of offerings', 'tree', and 'palm-tree' in the standard Egyptian hieroglyphic writing system. The gesture of a man lifting his arms on the boat corresponds to the classifier ⬭ (A30) 'to honour, to greet'. The profile view of the head given of all men surrounding the lake is in accordance with the semogram ⬭ (D1) for 'head'. However, there are also elements which do not have a corresponding sign in the fixed basic inventory of the writing system:[33] the variant types of palm-trees, the bush-like plants and the reed-like plants in the lake, as well as the arrangement of the flowers in the lake, although they resemble the signs for lotus flowers ⬭ (M9) 'lotus flower', ⬭ (M12) and ⬭ (M10) 'lotus bud' and are structurally similar to ⬭ (M15) 'papyrus, papyrus-marsh'. The specific postures of the men pulling on the ropes, picking dates, and making sacrifices besides the lake and inside the boat are equally not part of the core inventory of hieroglyphic signs; the semogram for 'man' has the shape ⬭ (A1). The men carrying water pots on a yoke are documented at least once

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sees a connection with Schäfer's "Vorstellung/vorstellig" in 'a-spective' = 'free from perspective' and the association of 'aspective' with 'aspect'.

28   Panofsky 1991, 105 note 24i.
29   Baines 2007, chapters 9–10, esp. p. 213; cf. Schäfer 1963, 99: "Vorstellungsbild."
30   Baines 2007, 210–211.
31   Rather than reproducing shapes similar to the original, the author of this sketch reproduces some of the elements according to their shape in standard hieroglyphs (compare, e.g., the shape of the sanctuary, the trees, and the pots of the gardeners). Given that even the modern copyist identified certain pictorial elements with hieroglyphs, it is likely – as I purport below – that also the literate ancient Egyptian viewer of an image of this kind partially perceives it as a hieroglyphic diagram.
32   Gardiner 1957, 438–548. For the palm-trees, see DZA 2014 [2005], 22.887.320.
33   Note, however, that the basic inventory was extendable in principle according to certain rules (Frank Kammerzell, p.c.).

Fig. 1 | Older sketch of a lake scene from the tomb of Rekhmire, Theben-West (TT 100), 15th century BC.

Fig. 2 | Lake scene in the tomb of Rekhmire, Theben-West (TT 100), 15th century BC.

Fig. 3 | Outline drawing of a lake scene from the tomb of Rekhmire, Theben-West (TT 100), 15th century BC.

Fig. 4 | Modern reconstruction of Rekhmire's lake scene (Plate 3) with hieroglyphs.

in the spelling of a word meaning 'gardener.'[34] Finally, the *diagrammatical* relations in the image, the relative spacing of figures, the ground lines that connect the individual motifs and frame the lake are definitely not part of a writing system. Figure 4 shows an attempt to reconstruct the scene using only hieroglyphs.[35]

The discussion makes it clear that two-dimensional images of Egyptian art may be analysed as *diagrams* (Charles Sanders Peirce)[36] made up in part of symbols that are also part of hieroglyphic writing and in part of *geradansichtig* schemata, as well as their spatial relations. Figure 5 is an attempt to imitate the experience of such a diagram by a 'reader' familiar with English spellings. The individual elements of the conceptual diagrams are not meant to represent a visual image, but merely to evoke concepts plus their *semantic frame*, in a manner similar to linguistic elements. This does not exclude the possibility that the persons creating the partly iconic symbols may have shown a particular artistic commitment. In any case, the elements of the conceptual diagrams have not been rendered true to scale,[37] even less according to the principles of linear perspective, but basically follow *diagrammatic* principles.

Fig. 5 | Diagram of the lake scene from the tomb of Rekhmire (Plate 3), with meaning of hieroglyphic semograms replacing the semograms.

The analysis of images as a diagrammatical arrangement of, predominately, hieroglyphic symbols may be carried out with many other examples of prestigious art from ancient

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34   DZA 2014 [2005], 30.558.160 (tomb in Dendera, 7th dynasty).
35   Using the typesetting programs *WinGlyph* 2.0, with extended sign library, and *JSesh* 6.4.1. Signs used: A21, A30, A238, A85, A98, A344, K2, K5, M1, M9B, M10, M42, M46B, M54, M55, M111A, M131, N35, N37, O18, O21, O238, P28, R3P, R7, W14, W66, X3, X6.
36   Cf. Bauer and Ernst 2010, especially ch. 2.3. Cf. also Nöth 2000, 195–196.
37   Cf. Brunner-Traut, in: Schäfer 1963, 409.

Fig. 6 | Outline drawing of the reliefs of the north wall of the throne room at the northwestern palace in Nimrud, c. 860 BC.

Egypt. In any case, there is indeed no system of perspective in Panofsky's sense in Egyptian art. A pictorial construction of space is generally optional in the Egyptian diagrams. If it is present, then it is usually awarded no central importance.[38] There *are*, however, examples of diagrams symbolising specific spatial constructions. For example, the unusual star-shaped arrangement of the plants around the lake in our lake scene seems to correspond to the idea of the plants being situated 'around the edge' of the lake. Whether we may also interpret it as indicating a specific *perspectival* construction, for example a perspective

38   Cf. Brunner-Traut, in: Schäfer 1963, 405–408.

from the view point of the boat and/or its crew or even a bird's eye view – compare the discussion of the Assyrian watchtower in Figure 6 in the following section –, needs to be discussed.[39]

3   Rethinking Panofsky from an Assyrian perspective

While Panofsky takes into account examples from ancient Egypt and Greek and Roman Antiquity, his comparative analysis excludes the ancient Near East, most notably Assyrian art. This is all the more surprising as the archaeologist Eckhard Unger publishes a glowing appraisal of Assyrian art in 1927 – the year in which *Die Perspektive als 'symbolische Form'* was published:

> [...] the fresh, swelling movement of a new era has influenced the Assyrian *Kunst-wollen* to depart from the established tradition and produce bold, first-rate works of art. In terms of perspective, the depiction of landscape and animals, these works surpass the entirety of ancient art and therefore arouse our highest admiration.[40]

Unger's appeal had hardly any repercussions in art-historical circles. It seems appropriate, therefore, to point out a gap in Panofsky's essay, and to fill this gap with a comparison of images from the Assyrian empire (c. 950–611 BC). In doing so, we may follow one of Panofsky's key aims, namely "to ask of artistic periods and regions not only whether they have perspective, but also which perspective they have."[41]

The large-scale decoration of Assyrian palace complexes with monumental wall reliefs starts under Assurnasirpal II (883–858 BC). The throne room of his palace at Nimrud is filled not only with several life-size figures occupying almost the complete height (1.90 m) of the wall slabs made of black alabaster, but also with scenes from the war campaigns of the Assyrian king (Fig. 6). The narrative reliefs are divided vertically into two registers by an inscription band. The upper register can be viewed while standing, whereas the lower register requires the viewer to sit or bend down. The construction of space in the relief does not, however, award a defined position to the viewer. This confirms what Panofsky describes as a basic principle of the perception of space in Antiquity: The images constitute an aggregate space,[42] in which the relations between objects are not controlled by a consistent perspective but are instead related to one another by their disparate proportions which emphasise differences in status. The ordering principle which determines the narrative across the registers is horizontal and directional.[43] The Assyrians share a common ground line and move in one direction, which is indicated by the king, who is the protagonist in each self-contained scene. The convergence of temporally distinct actions directed towards the king or away from him is an essential characteristic of royal rhetoric.[44] The visual narrative unfolds an account of royal deeds, complementing the inscription band. The reader-viewer can only gain access to this account by moving back and forth along the reliefs, the process of viewing motivating physical movement. As the account combines episodes from several military campaigns, the rhetoric of the visual narrative allows the linearity of historical action to be interrupted at the same time

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39   Cf. the discussion in Schäfer 1919, 119–120 and Schäfer 1963, 251–253.
40   Unger 1927, 45: "[...] die frische, anschwellende Bewegung einer neuen Zeit hat das assyrische Kunst-wollen beeinflusst, sich von der althergebrachten Tradition loszumachen und kühne erstklassische Kunstwerke hervorzubringen, die was perspektivische, landschaftliche und Tierdarstellungen anlangt, die Werke des gesamten Altertums weit übertreffen und darum unsere größte Bewunderung erregen."
41   Panofsky 1991, 41.
42   Panofsky 1991, 42.
43   Cf. Lumsden 2004a, 364.
44   For a detailed discussion of this, see Winter 1981.

as it requires individual events to still be connected visually. One of the possible solutions for this problem is the rhetorical insertion of the Assyrian military camp, which in the royal annals functions as a literary trope providing transitions in narration. It works in an analogous way in images, where it allows a quick change of direction within the different episodes of warfare.[45] The upper register of the relief slab B7 contains the depiction of such a military camp, rendered in the way typical of the period of Assurnasirpal II. The outlines of the circular camp have watch towers which point outwards as if they were seen in bird's eye perspective.[46] The interior of the camp is divided into four equal segments by two paths which cross in its centre. These segments show detailed scenes from life in the camp in side view. While the combination of different perspectival viewpoints draws the viewer's attention to the camp, the crossed paths direct his gaze beyond the camp, to the registers bordering on this scene in both vertical and horizontal directions, in which further episodes begin and end.

In the scene to the right of the camp we can recognise a "disintegration of perspectival space"[47] which is similar to the miniature from the Vienna Genesis referred to by Panofsky.[48] Horses are being fed outside a stable with a tent roof, while a single horse is being groomed inside the tent. An Assyrian official can be seen half inside and half outside the tent opening, ready to receive the prisoners taken during an earlier conquest of a city, which, however is depicted four scenes earlier (B3). The compositional logic of this type of image, including the military camp on the left, is based on the sequence of significant narrative components. The link between these components is established not by subjugating them to a unified spatial perspective, but by presenting shifting viewpoints within the pictorial events and onto them. Similar to Roman narrative art such multi-perspectival compositions set the viewer in motion or implicitly locate a viewer inside the picture (see Fabricius below, Fig. 24).

The development of Assyrian wall reliefs after the reign of Assurnasirpal II shows several technical and thematic innovations, and although these reliefs still retain conventional forms of narration, they express a shift in the perception of space or at least a rekindling of the a certain perception of space in the context of affirmative royal rule. The long lineage of Assyrian kings and the increasing demand for prestigious goods forced each new ruler to surpass the deeds of his predecessors. This pressure caused new long-distance military expeditions and other ventures like building activities to affirm the unrivalled position of the Assyrian king. The accounts of the construction work under Sennacherib (705–681 BC) present a distinctive example of this. In the course of moving the capital to Niniveh, the building activity was seen as a symbol for the outstanding competence of the Assyrian king. The erection of the colossal jamb figures in the new palace of the ruler is a particular technical feat. The big orthostats needed to create the figures the Assyrians called *lamassu* were made in a quarry north of the capital and transported to Niniveh along the irrigation canals built by Sennacherib. The event can be found in the royal annals and is the subject of several reliefs in the so-called Southwest palace in Niniveh.[49] One of these reliefs (Fig. 7) shows the ruler standing on a hill in his carriage and supervising the departure of a *lamassu*-orthostat from the quarry of Balatai. The scene covers two wall slabs and is not split into registers, so that it presents itself as a broad panoramic view of the actions and their integration into the landscape. The viewpoint differs clearly from the scenes in Assurnasirpal II's palace, which anchor the

45 Cf. Lumsden 2004a, 369.
46 On similar depictions in ancient Egypt, see the preceding section with Fig. 3.
47 Panofsky 1991, footnote 30, 112–113.
48 Panofsky 1991, plate 22.
49 The sources have been compiled by Russell 1991.

figures to a low ground line. The visual narrative in Niniveh is presented from a high viewpoint, which coincides with that of the ruler figure on the hill.
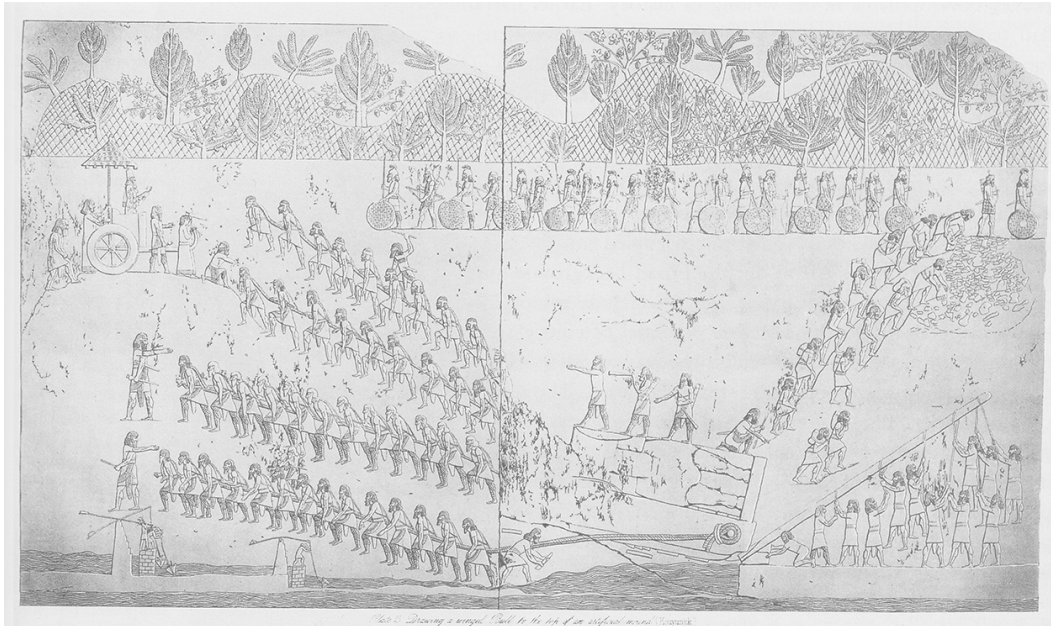

Fig. 7 | Transport of a *lamassu*. Relief from the southwest palace in Niniveh, c. 700 BC.

The "high viewpoint"[50] typical of the reliefs of Sennacherib can be addressed as a kind of perspective system, because it is oriented towards a fixed position, in this case not of the viewer but of the ruler within the image. Although the viewer's attention is drawn first and foremost to the *lamassu* figure in the centre of the relief,[51] the ruler figure, seen in an inconspicuous profile view, governs an understanding of the action. All other components of the composition are subordinate to the position of the king: The rows of forced labourers moving up the hill and pulling the sledge with the *lamassu*-orthostat; the labourers working on the other side of the quarry; the canal at the foot of the hill, from which water is being drawn with special hoists; the row of Assyrian sentries in the background and the row of hills behind them. There is an obvious asymmetry in the relations between these pictorial components and the figure of the ruler. This creates a different kind of space from that of the Assurnasirpal reliefs: A unified system of subordination takes the place of the aggregate space of the earlier reliefs. Contrasting with Panofsky's evolutionist idea, we can postulate the outline of a pictorial systematic space long before the Renaissance. The high viewpoint of the ruler derives not solely from the topography of the quarry, but is evidence of a directing logic which has already guided the construction of the space at the centre of rulership: Sennacherib's palace in Niniveh is situated at the top of a citadel hill which lies on the outskirts of the town, so that the king was able to look down onto the area he controlled in a way similar to the situation in the quarry at Balatai.[52] If there is an Assyrian perspective as symbolic form, then this might be the "high viewpoint" of Sennacherib. It symbolises the ruler's view of his subjects and

50   On the "high viewpoint" in the reliefs of Sennacherib, see Russell 1991, 193–198.
51   Incidentally, this implies the subsequent function of the *lamassu* sculptures in the Niniveh palace: they were apotropaic guards of the gates.
52   Lumsden 2004b.

is therefore the expression of a royal worldview *(Weltanschauung)*, for which the Assyrian relief creates a particular form of spatial view.

4   Magnificent perspectives

Although the beginnings of a perspective system in ancient Greek art are thought to lie in the 5th century, Panofsky almost completely ignores the High Classical period in his essay. He gives examples of spatial depth from the 4th century, but judges these to be of "peculiar instability and internal inconsistency"[53]. He bases his judgment on the detail of an Apulian luxury vase, a strip of dentil ornament rendered in parallel perspective (Fig. 8). The depiction of depth is immediately apparent, but there are incongruities: Panofsky points out that the orthogonals run parallel to one another. There is another aspect which he does not mention: the orthogonals do not converge in the middle, but diverge instead. This second 'mistake' cannot be judged to indicate a deficiency in the mode of projection which Panofsky implies to be the reason for the incongruities in the representation of spatial depth at this time. After all, no more systematic perspectival construction would have been required in order to make the orthogonals of the dentil recede to the 'right' side. It is evident that this is purposeful *(Darstellungswille)*.

Fig. 8 | Apulian red figure volute *krater* by the White-Sakkos-painter around 320 BC. Detail of front. Kiel, Antikensammlung.

The fact that the orthogonals recede to the 'wrong' side has nothing to do with Panofsky's general question, i.e. which pictorial techniques are employed to project three-dimensional objects onto the surface of a substrate. If we understand perspectival representation as projection, as Panofsky seems to, then we are positing one viewer's more or less fixed point of view. In the case of the volute krater the main view – a frontal view of the vase's front – is at odds with the viewpoint we may derive from the perspectival representation of the dentil. The appearance of the ornament rendered in perspective can therefore not be deduced from the relation of the painted object and the implicit viewer.

Instead, the form that the perspectival representation takes is explained by the relation of the painted ornament to the whole vase (Fig. 9). As is the case with other volute kraters,[54] the dentil marks the transition between neck and lip of the vase. The liminal

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53   Panofsky 1991, 40, and plate 2.
54   This element of decoration can be found particularly on objects by the Baltimore-painter and the related White-Sakkos-painter. See Trendall and Cambitoglou 1982, 858–859, 957. Further examples are a

Fig. 9 | Apulian red figure volute *krater* by the
White-Sakkos-painter, around 320 BC. Front. Kiel,
Antikensammlung.

Fig. 10 | Apulian red figure volute *krater* by the
White-Sakkos-painter, around 320 BC. Side. Kiel,
Antikensammlung.

position can be compared to Ionic monumental architecture, where dentils are found
above the frieze but below the *geison*. It is notable, however, that in contrast to what one
would expect in an Ionic temple, the dentil does not continue around the whole vase, but
terminates level with the handles. On the other side of the vase, a two-dimensional laurel
twig replaces it (Fig. 10). The same contrast between ornament rendered in a perspectival
and a planar style is evident in other decorative elements. It is true of the complex compo-
sition of spiralling tendrils on the neck of the vase, which gives way to a planar palmette
frieze on the other side (Fig. 11). We can conclude that the representation of depth is a way
of emphasising the front of the vase as more magnificent. This principle, a difference in
magnificence between front and back, can be observed quite generally for Apulian vases.[55]
The same contrast continues in the main picture on the body of the vase, for instance in
the centrally positioned architectural elements: an aedicule shown in oblique view on the
front, and a flat grave stele on the reverse. The perspectival representation of the dentil is
therefore not a singular occurrence as Panofsky's plate suggests, but functions within the

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volute *krater* in Toledo (inv. 77.45, Trendall and Cambitoglou 1982, 862, 27.13, plate 322; Trendall 1989,
Figs. 248–249) and a volute *krater* in a Swiss private collection (Morard 2009, cat. No. 82, plate 58.2;
Schauenburg 1994).

55   On this issue, see Giuliani 1995, 81–87, esp. 81–83.

decoration strategy for the whole vase. The pictorial illusion of depth is a way of giving emphasis and increasing artistic effort. The perspectival dentil is to be seen not primarily in relation to the eye of the viewer, but in acknowledgement of the difference between this element and other parts of the vase which have been less luxuriously decorated.

Fig. 11 | Apulian red figure volute *krater* by the White-Sakkos-painter, around 320 BC. Back. Kiel, Antikensammlung.

Of course, it is the viewer who can become aware of the graded magnificence of the vase. But it is not the one, central, 'ideal' viewpoint captured in the photograph of Panofsky's plate 2 which is important and which shows the orthogonals receding to the 'wrong' side. As well as the two main sides (Figs. 9, 11), the side views are important (Fig. 10), because they reveal the gradation of magnificence most clearly. It is this direction from which the oblique view of the dentil is 'correct'. A second issue is even more important: As a magnificent object which occupies space in itself, the volute krater has been designed with multiple viewpoints in mind. The vase is not supposed to be seen from a single, 'ideal'

position by a static viewer, but premises mobile viewers who see the krater from different, changing and contrasting directions. The "peculiar instability and internal inconsistency" which Panofsky diagnoses of the perspectival representation is particularly suited to this form of perception and effect.

At this point, we can question Panofsky's integration of these perspectival techniques of representation into his more general evolutionary model. Similar leaps or gradations in perspectival representation may be found in the imagery and ornament of other periods of Antiquity. Floor mosaics of the High and Late Roman Empire show conscious 'mistakes', at a time that Panofsky sees as introducing a decisive new step towards the medieval dissolution of antique perspective. An example can be found in the villa of Piazza Armerina (4th century AD).[56] A geometric mosaic in a smaller room of the villa is framed along the wall by a band of cubes (Fig. 12). In abstract form they depict a series of corbels seen from below. In contrast to the band in a neighbouring room of the villa, where these kinds of corbels support an angulated entablature (Fig. 13), the motif has become independent here. In the corner of the room, the direction of the orthogonals suddenly changes. Who interprets this perspectival shift as a solution born out of necessity is in for a surprise in yet another of the villa's rooms (Fig. 14): Here, the direction of the cubes does not only change in the corners, but from one cube to the next. Searching for a vanishing-point, unified perspective or fixed viewpoint is evidently pointless here.[57]

Fig. 12 | Floor mosaic in the late antique villa of Piazza Armerina, late 4th century AD, room 26: detail.

The illusion of spatial depth is disturbed in another way: The motif cannot only be 'seen' as a three-dimensional cube, but also in a purely abstract and planar way (Figs. 12, 14). The two visible receding sides of the cubes have not only been rendered in a darker tone than the face to produce an illusion of three-dimensionality, but they are distinguished from one another in terms of colour. This principle of colouring 'interprets' the receding sides as coloured parallelograms. It is not a viewer prepared to dive into the perspectival

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56   On the floor mosaics in Piazza Armerina discussed here, see: Gentili 1999, 38–41 (room 19), 66–69 (room 26), 124–132 (room 36).

57   The strategies exemplified by the mosaics of Piazza Armerina and the use of the cube motif can be found from the 3rd century AD onwards. See for example the mosaics in Antiochia (5th–6th century: Kondoleon 2000, 67 Fig. 3; 209 Fig. 1; Kondoleon 1994, 201), Silin (Villa in Silin, 3rd century: Mahjub 1983), in Paphos (House of Dionysus, 3rd century: Daszewski and Michaelides 1989, 20–24; Kondoleon 1994, 87–95).

Fig. 13 | Floor mosaic in the late antique villa of Piazza Armerina, late 4th century AD, room 36: detail.

Fig. 14 | Floor mosaic in the late antique villa of Piazza Armerina, late 4th century AD, room 19: detail.

illusion of depth who is addressed, but someone who allows his gaze to jump between changing views and is susceptible to the aesthetic appeal of seeing cubes 'projecting' out of illusionistic depth and then seeing a planar pattern of colours. The techniques of perspectival representation in the late antique Roman floor mosaics aim at causing visual surprise effects.

Apulian vase painting from the 4th century BC and Roman floor mosaics of the 4th century AD are quite distant from one another. Nevertheless, the parallels in the way techniques of perspectival representation are employed are evident: We have observed the sudden change of orthogonals, the multiplicity of contrasting viewpoints implied by the three-dimensionally rendered elements, the shift between perspectival and flat representation. The overall aim in both cases is not the production of spatial illusion but the production of magnificent decoration which arrests the viewer's attention. The (supposed) 'mistakes' in the perspectival construction, analysed diachronically and in relation to function, allow us to construct a *history of continuity* in place of, and in addition to, Panofsky's *history of change*.

5   Inverted perspective viewed from its beginnings

Techniques of representation such as the dentil on the Apulian volute *krater* (Fig. 8 above) which converges towards the viewer are generally related to a phenomenon which Oskar Wulff termed "inverted perspective"[58] in 1907. The term refers to strategies of representation which offer, as it were, an opposing model to that of linear perspective.[59] The vanishing-point in this case does not lie within pictorial space, but in the viewer's space. This is particularly clear with cubic objects with orthogonals which diverge towards the background, and with background figures which are not depicted smaller in proportion to those in the foreground.

Clemena Antonova has recently systematised the various, often contradicting, explanatory models for "inverted", "reverse" or "Byzantine perspective" discussed intensively among scholars.[60] Older scholarship had often oversimplified the reason for these pictorial techniques, stating that they are grounded in the painters' or sculptors' innocence or even inability.[61] Other approaches, which assume an intentionality of representations with inverted perspective, emphasise either the artist's expressive need or the desire to compensate. Inverted perspective is then seen as in some ways more accurate rendering of natural spatial perception, and as a way of avoiding the 'mistakes' of a pictorial construction according to linear perspective. It was attempted to try and prove some of these effects in experiments in perceptual psychology.[62] A further advantage of inverted perspective is seen in leaving behind a hierarchical constellation of a distanced, static viewer and acknowledging a multiplicity of imagined viewpoints inside or outside the image. Alternatively, inverted perspective is interpreted as a purposeful violation of the norm for reasons of expression. Diverse hierarchies of size, inconsistent orthogonals and the multiplicity of spatial levels could then be interpreted as expression of a non-euclidean understanding of space and as representing an alternative understanding of both a multidimensional and timeless transcendental reality.[63] In this context, even the

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58   "Umgekehrte Perspektive" in the original: Wulff 1907; cf. Mikocki 1990, 95–103; Hub 2008, 50–53.
59   Wulff 1907. On the problematic nature of taking linear perspective as standard, see: Belting 2008, 28. Panofsky already cautions in a similar way: Panofsky 1991, 114 note 30 (no "true inversion of normal perspective").
60   Antonova 2010, 464–460. She summarises the six different explanatory models as "inner view thesis" (e.g. Wulff 1907), "scenography thesis" (Wulff), "hierarchical size thesis" (Doehlemann, White; Arnheim), "optical view thesis" (Deręgowski), as well as principle of "visual analogue of non-Euclidian geometry" (Zhegin) and "principle of supplementary planes", which could also be called "synthetic vision thesis" (Florenskij). Cf. also Hub 2008, 121–125.
61   Cf. e.g. Mikocki 1990, 97–98; Scolari 2012, 121–122.
62   Deręgowski, Parker, and Massironi 1994; Willats 2003.
63   Florenskij 1989.

divine gaze has been introduced as an authoritative gaze which the human viewer strives to imitate.[64]

Art historical studies dealing with inverted perspective have focused on early Christian, Byzantine and medieval art. Greek and Roman examples, which already play a minor role in Panofsky's essay, have hardly been studied in later treatises, either. This oversight has led to theories constructed upon weak foundations, for example when Russian scholarship states the radical otherness of Eastern art with regard to Byzantine icons. Antonova, following in Pavel Florenskij's footsteps, constructs a model of "pictorial space that is fundamentally different from the standard space of the Western tradition"[65] but excludes the several formal precursors from Western Roman wall painting and reliefs. Such omissions are problematic not least because the objects represented in inverted perspective often appear in similar pictorial contexts.

The starting-point is the lunette mosaic in San Vitale in Ravenna (6th century), "for here we can observe quite plainly the disintegration of the perspectival idea"[66], as Panofsky argues (Figs. 15–16). The orthogonals of the table shown slightly from above diverge clearly towards the background, just like those of the altar. This convention is even more common and concise in the depiction of throne scenes: Enthroned figures of rulers, of Christ or Mary, seen frontally or obliquely, often show a platform or footstool depicted in inverted perspective.[67]

Fig. 15 | Lunette mosaic, San Vitale in Ravenna (6th century AD): Abraham's hospitality and the Sacrifice of Isaac.

While in Byzantine icons we sometimes find a complex combination of several items with diverging orthogonals and therefore a more systematic employment of the inverted perspective, in Roman art we often only have individual, albeit very characteristic, pictorial elements in inverted perspective.[68] From the early Roman Empire (Figs. 17–19, Fig. 24) to late Antiquity (Fig. 20), these are platforms, cubic seats and tables, but also architectural structures such as towers with gabled roofs, and square courtyards surrounded by colonnaded porticoes (Fig. 25). The obviously intentional character of this representational

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64   Antonova 2005; Antonova 2009; Antonova 2010.

65   Antonova 2010, 467–468. For a critical response to Florenskij see also Hub 2008, 50–53.

66   Panofsky 1991, 48 and plate 5.

67   Cf. the mosaic in Monreale cathedral (Panofsky 1991, plate 9).

68   A 'real' inverted perspective is unusual in Greek art. One of the earliest examples is a Hellenistic dove mosaic from Pompeji; cf. Panofsky 1991, 113 note 30, our Fig. 22.

Fig. 16 | Lunette mosaic, San Vitale in Ravenna (6th century AD): Abraham's hospitality (detail).

Fig. 17 | Boscoreale Cup: Augustus sits on a *suggestus* with his *sella curulis*, early Roman Empire. Paris, Louvre.

practice is central to the question of the formal and iconographic relation between these examples and early Christian and medieval art. However, this intentionality cannot be deduced by studying antique optical theories. Although many important principles of optics were known by the 5th or 4th century,[69] a transferral of these principles to fine art in the sense of using them as instructions for the projection of a three-dimensional space onto a two-dimensional surface are not to be expected and played a very minor

69   These include the change in hierarchies of size, the converging of parallels with increasing distance to the viewer, or optical foreshortening according to the point of view. On the (very fragmentary) sources, e.g. on skenographia, see: Engemann 1967, 90–95; Little 1971, 1–10; Pollitt 1974, 230–241. Panofsky's assumption that there was a spheroidal perception of space in Antiquity is rejected today: cf. Hub 2008, 108–141; cf. Panofsky 1991, 30–36.

Fig. 18 | Hesperos enthroned with Apollo and Aphrodite: fresco, Casa di M. Gavius Rufus, Pompeji (Flavian).

Fig. 19 | Admet and Alkestis: fresco, Casa di Poeta tragico in Pompeji, 1st century AD.

Fig. 20 | Cast of the ivory diptych of Asturius 449 AD. Darmstadt, Hessisches Landesmuseum.

role. Rendering orthogonals which diverge towards the centre of a picture was a skill which Roman painters practised: From the second Pompeian style onwards they had been creating architecturally complex, if not spatially coherent wall paintings.[70] Panofsky speaks of a vanishing-axis or fishbone principle.[71] If the same painters at times used inverted perspective, this can therefore not be ascribed to their ignorance, but must have had specific reasons.

An attempt to substantiate this should take new studies on characteristic practices of representation in Roman art as its starting-point. For these practices, Toni Hölscher has recently coined the term "presentative art" in place of the problematic term "arte popolare"[72]. His concept allows us to explain the Roman perspective in its complexity as a network of old (partly Greek) practices of representation and pictorial schemata and new levels of meaning and intentions of expression. Seats with their inverted orthogonals, for example, seem to transform Greek exemplars. In Greece from the 5th century onwards, cubic objects were depicted in oblique axonometry particularly when their supporting character was to be emphasised (Figs. 23).[73] A continuation of the connotations of the pictorial formula can be observed in Roman wall painting. Mythical figures often sit

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70   The question whether linear perspective was known in Greek and Roman Antiquity is much-discussed.
      The following studies argue in favour: Beyen 1939; White 1956; Engemann 1967, 73–82 (for wall paint-
      ings of the second style); Mikocki 1990; for sceptical studies, see: Richter 1970, 1–3 and 50–54; Scolari
      2012, 34. The principle of a single vanishing point, at least, was probably not known. The important role
      played by the artists' practical versus theoretical knowledge is emphasised by Scolari 2012, 30–31.
71   Panofsky 1991, 39; Mikocki 1990, 60–61 and 83–86; Hub 2008, 56–63.
72   "Präsentative Kunst": Hölscher 2012.
73   See on this topic provisionally: Fabricius in Bonatz and Fabricius 2011, 5–9.

Fig. 21 | Icon of the Annunciation from Ohrid, beginning of the 14th century.

Fig. 22 | Hellenistic dove mosaic from Pompeji, c. 100 BC. Naples, Museo Archeologico Nazionale.

Fig. 23 | Orest sitting on an altar: Apulian krater (drawing), 2nd half 5th century BC. Naples, Museo Archeologico Nazionale.
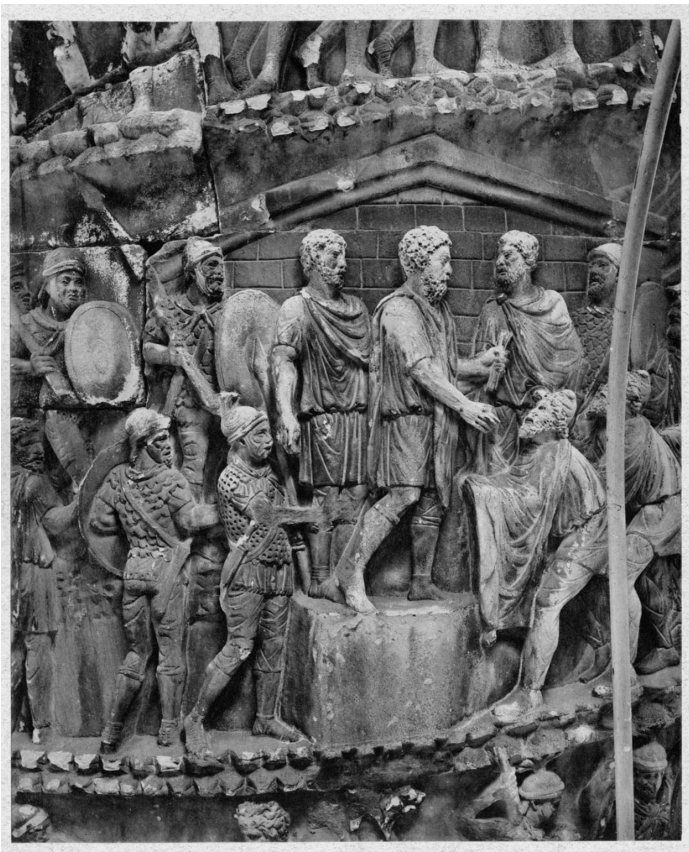

Fig. 24 | Column of Marcus Aurelius in Rome, scene No. XLIX: The Emperor receiving barbarians, end of the 2nd century AD.

on cubes and pieces of furniture depicted in oblique view (cf. Fig. 19), which are now shown from above and in inverted perspective, no longer in parallel perspective. The expressive content of 'stability' and 'support' may also explain why from the second style onwards the upper zones of the angulated wall systems have their vanishing point more or less consistently in the middle, while the lower zones only partly follow this logic,

Fig. 25 | Trajan's column in Rome, scene No. LX/LXI: Construction of camps (113 AD).
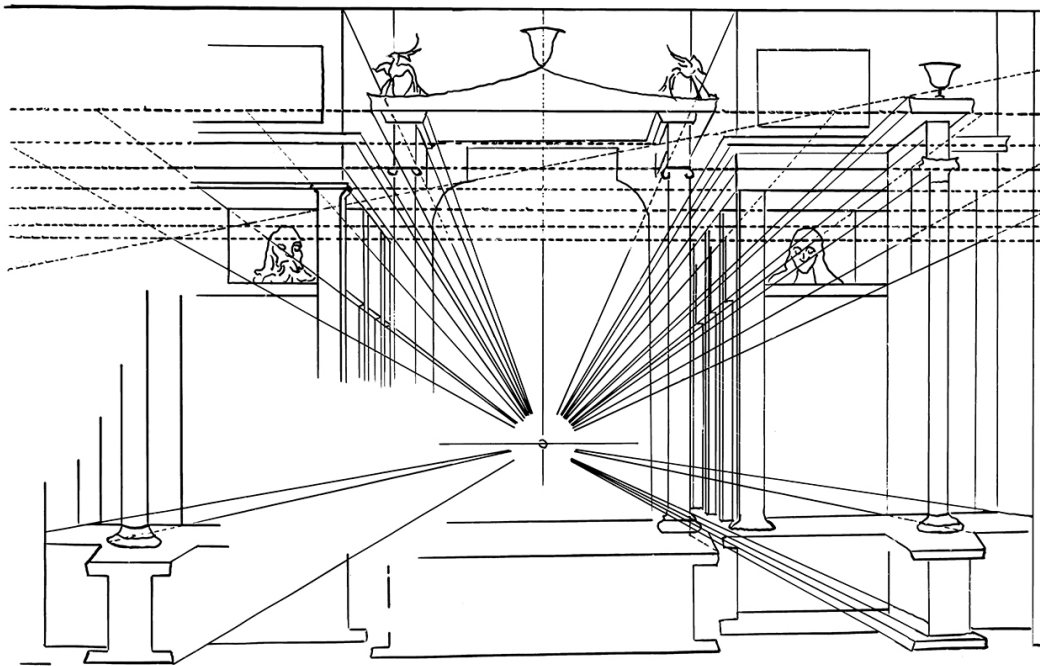

Fig. 26 | Drawing of wall decoration, House of Augustus on the Palatine Hill, late second style (early Augustan).

and especially column pedestals are rendered in inverted perspective (Figs. 26–28).[74] In contrast to what Panofsky assumes, the primary aim is not a most clear rendering of objects which avoids any overlapping, but a functional aim.[75] The interpretation suggested here foregrounds semantic qualities rather than optical effects, and may not be applicable to all uses of inverted perspective in Roman art. Architectural elements such as towers and camps or four-sided porticoes in the reliefs of Trajan's column and several wall frescoes cannot be explained by this interpretation (Fig. 25). These are usually multi-perspectival

74 Cf. Engemann 1967, 73–82. In his analysis of wall paintings of the second style, Stinson 2011 overlooks that the pedestals in the lower areas of the painting are often not rendered in parallel perspective, but in inverted perspective. The reduced depth of pictorial space in these areas (corresponding to a reduction in effort on the part of the painters) he sees as explained by the fact that some of the detail in these areas would have temporarily been covered by furniture. Compare Sinisgalli 2012, 100–113.

75 Panofsky 1991, 113 note 30 states that "This fear of overlapping is almost natural to a two-dimensional way of thinking." Compare, in similar terms Arnheim 1972, 130.
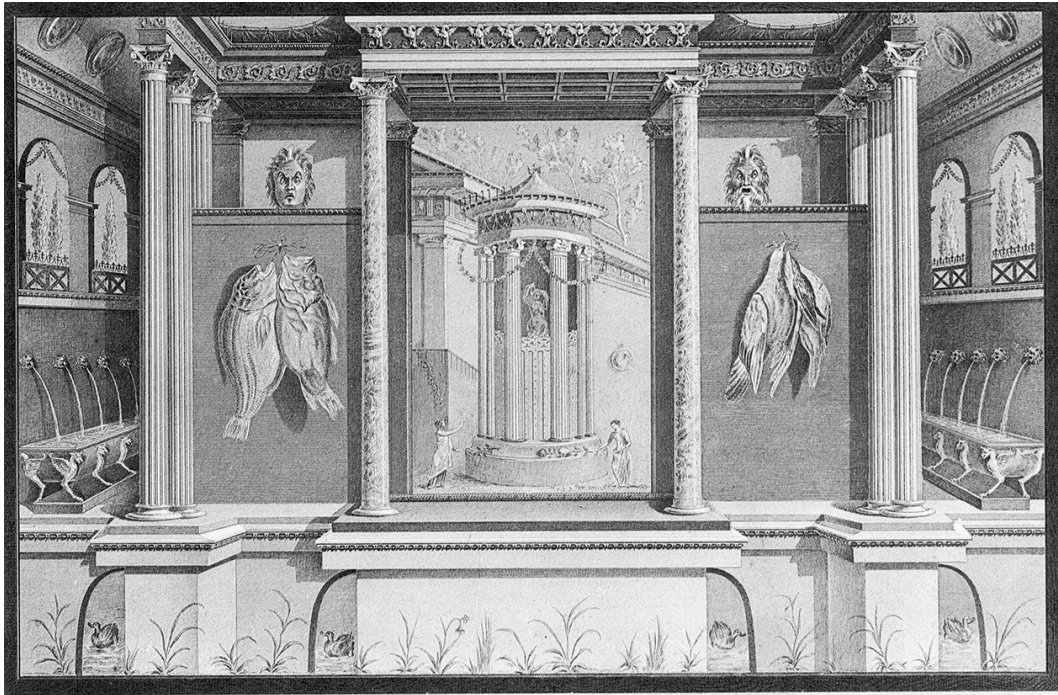
Fig. 27 | Wall system in the second style from a house in Pompeji (VI, 17, 41) after the reconstruction by A. Sikkard. Naples, Museo Archeologico Nazionale.
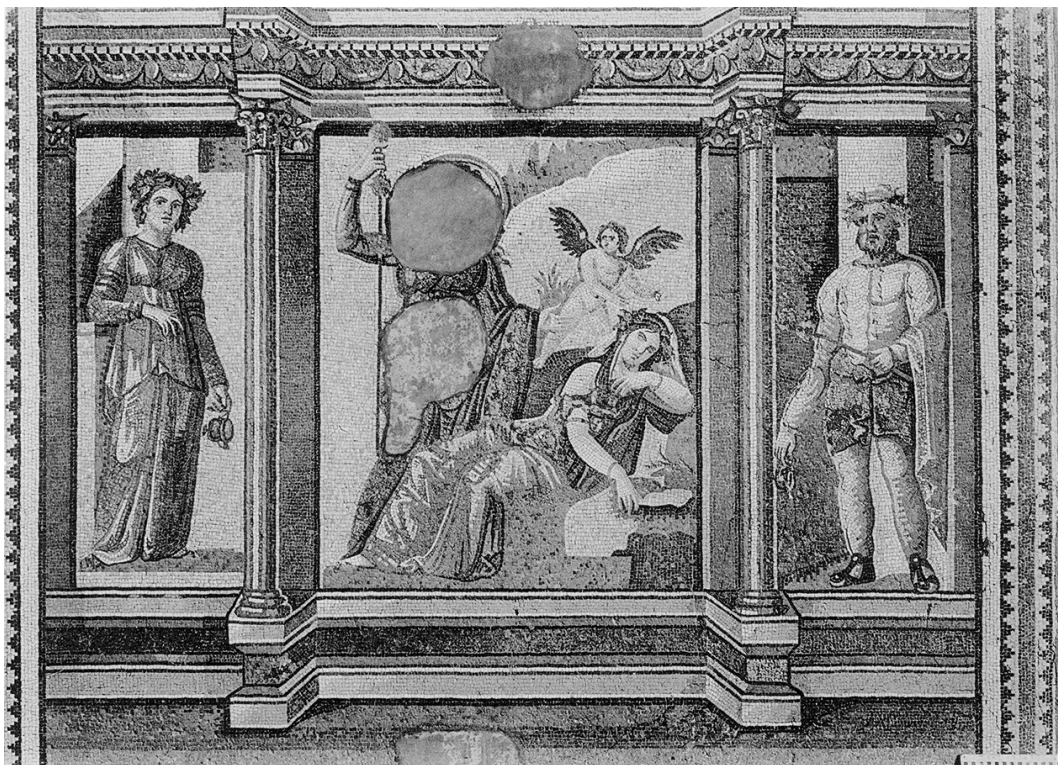

Fig. 28 | Dionysos and Ariadne: Mosaic from Seleucia Pieria (c. 200 AD). Antakya, Museum.

compositions which require a viewer on the move. Converging and diverging orthogonals here do not only set the viewer in motion or introduce an implicit viewer figure inside the picture. In particular in the case of Trajan's column, the composition, characterised by diagonals, picks out the figure of the emperor at the same time as emphasising the direction of gazes and actions of the figures surrounding him.

In view of this long tradition of inverted perspective a more precise explanation is needed as to why we should assume that significant semantic shifts – for example towards a transcendental meaning – took place from Late Antiquity onwards.[76] This is especially true for the image of the enthroned ruler. The specific accomplishment within the Roman pictorial tradition, which consists of a creative use of perspective strategies, are not to be overlooked. They continue well into late antique and medieval art, and today one would not explain this by referring to an "antiperspectival Eastern influence"[77]. Research has revealed a historically more adequate image of Roman art since the time of Panofsky's writing which can contribute to more considerate interpretations of continuities and shifts within this period.

6 Looking through the wall

One illustration in Panofsky's essay is of particular importance for his notion of perspective in Antiquity:

> Even when the notion of perspective as 'seeing through' is taken seriously – for example, when we are meant to believe that we are looking through a row of columns onto a continuous landscape (Panofsky's plate 4, here Fig. 29) – the represented space remains an aggregate space; it never becomes that which modernity demands and realizes, a systematic space.[78]

Fig. 29 | Odyssey landscape frescoes, panel 8 and panel 9. Biblioteca Apostolica Vaticana.

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76 For Mikocki 1990, 97–98, the Roman examples are caused by the ineptitude of the painters whereas the late antique and Byzantine examples are intentional.

77 Panofsky 1991, 112, note 30, and compare 48.

78 Panofsky 1991, 42.

The photograph shows panel 8 and part of panel 9 of the Odyssey landscape frescoes on the Esquiline hill (Fig. 29; Panofsky's Plate 5 in the original German version[79]). Panofsky uses the fresco which is framed by a pillared portico[80] to back up his argument that Antiquity had known perspective in the late Hellenistic period.[81] It remains unclear, however, whether Panofsky is referring here to perspective strictly understood in the modern sense of the term,[82] the spheroidal perspective[83] he himself claims for Antiquity, or whether it is merely the view into a pictorially rendered space (by means of perpendiculars, foreshortening, overlapping) as opposed to the picture as opaque surface. While at first he distinguishes clearly between the two concepts of space, aggregate space and systematic space, the footnote following our initial quote blurs this distinction again: Panofsky speaks of "the *true* [emphasis added] perspectival representations of the so-called second Pompeian style"[84] to which the Odyssey frescoes seem to belong.[85]

Panofsky explains the ancient "view of space"[86] with the impression that the landscape seemingly continues behind the portico,[87] but his comparison with a medieval fresco is not convincing.[88] A close look at Panofsky's illustration reveals that there is only a rather loose continuity between the two panels. It is only the outline of the cliff in panel 9 which continues at the same height as it is left off at the right side of panel 8; and yet the cliff has been moved forward in comparison to the same cliff in panel 8. The continuation of the expanse of water in the bottom right corner of panel 8 into panel 9 remains unclear and is only partially covered up by the addition of half a clump of reeds to the right of the pillar.

79   Panofsky's original black and white photograph is rather dark and blurred and is therefore replaced in our Fig. 29 with a watercolour from 1871 which renders the architectonical features and the inscribed names more clearly. An excellent photograph showing the actual state of the compound of panels 7 and 8 (nowadays framed in a golden frame and exposed in the Biblioteca Apostolica Vaticana, sala delle Nozze Aldobrandine, Inv. No. 41016) can be found in Catoni 2008, 203. Plate 4 in the English translation (Panofsky 1991) shows a photograph of Panel 2. There is no indication of why the original illustration has been replaced.

80   The first panel was already destroyed when the frescoes were discovered in 1848, therefore an additional picture is counted. Today, all of the panels apart from one are in the Vatican Museum, and each measures 117 x 153 cm (without frame). Measurements: Biering 1995, 204. Panels 2–5 depict the Laestrygones scenes from *Odyssey* 10, 81–132, the central panel 6 shows Odysseus entering Circe's house and the drawing of the sword (*Od.* 10, 312–322). Panel 7 is more or less indecipherable, panel 8 shows Odysseus at the entrance to the underworld with Teiresias (*Od.* 11, 23–150), the partially preserved panel 9 (117 x 78 cm) depicts the penitents Orion, Sisyphos and Tityos (*Od.* 11, 572–600) and the Danaids; the so-called Gorga fragment in the Museo Nazionale Romano shows traces of the episode with the Sirens (*Od.* 12, 158–200). For illustrations, see Plates in: Biering 1995, and Andreae 1996; for a reconstruction of the wall, see: Andreae 1962, (Plate), of the sequence of paintings, see: O'Sullivan 2007, Fig. 4.

81   There is some controversy over the question whether the frescoes are the copy of a Greek original (see, for example, Blanckenhagen 1963) or a Roman painting composed of several pictorial motifs (see Biering 1995, 145–146).

82   Panofsky 1991, 77 note 5; cf. 110 note 24 iv: "As far as we can tell from the surviving material, depth intervals were in fact first made really verifiable on Roman soil; in this way, the conception of a material picture support was unequivocally replaced by the conception of an immaterial picture plane." For recent views on 'perspective' in Antiquity see Fabricius in this paper.

83   Panofsky 1991, 30–36; for a critical view and explanation of spheroidal perspective, see Tobin 1990.

84   Panofsky 1991, 105 note 24. The development of the concept of "true perspective" (105) culminates in Hellenistic times when, according to Panofsky, "true landscape" (109) is eventually reached.

85   Only Biering 1995, 190 dates the frescoes to "the last years of the 1st century BC" and sees similarities with the third style; Coarelli 1998, 26–30 and Müller 2000, 172–173 date the frescoes to 50–40 BC and assign the pictures to the second style.

86   Panofsky 1991, 43.

87   Panofsky 1991, 110 note 24 iv: "This is most clearly emphasised by an illusion of an apparently accidental view, especially when glimpsed through something else."

88   Panofsky 1991, 117 note 34 (with Plate 31) refers to a fresco from St. Johann in Pürgg (Steiermark) from the 12th century as a "genuine analogy" to the Odyssey frescoes: Here, however, the figures float above rather than stand on a strip of grass which connects several scenes. This abstract motif hardly deserves to be called a landscape.

This is a clever but by no means a seamless collage. The panels with the Laestrygones (Nos. 2–5) seem to offer a better example for 'looking through', and indeed their fluid coherence has fascinated many scholars. Even here, however, the impression of continuity is misleading. The panels only present a coherent landscape when viewed from a distance. A close 'reading' of the frescoes – which is encouraged by the addition of names[89] to the figures – shows that the panels depict the same harbour scene at different points in time and from different points of view. The scenes are bound by a repetition of pictorial elements:[90] Odysseus' companions initially receive a warm welcome by the Laestrygones, then they are attacked and killed, and in the final scene only Odysseus can flee.[91] The 'true' landscape proves to be a montage of four events of a chronological sequence.[92] Panofsky's Plate 5 of the original German version is no exception: The Teiresias passage in panel 8 is separated from the penitents of panel 9 by hundreds of verses in the text and several other encounters of Odysseus in the underworld. Only from a distance do they seem to be coherent images; those who know the *Odyssey* will be able to locate the scenes precisely when 'reading' the images.

It is surprising that Panofsky does not mention the painted portico, especially since box-like spaces with coffered ceilings, cornices and floor tiles are so important for his own account of the development of linear perspective in the Renaissance.[93] The portico consists of a row of light red pillars in the front, and a row behind, shadowed and therefore darker.[94] The double pillars emphasise the central Circe panel: The orthogonals of the capitals on the left are angled to the right in parallel perspective; those on the right are angled to the left. Both principles are combined in the central panel 6, where they form a box frame and where the continuation of all the orthogonals comes to rest on the central axis of the wall which virtually cuts the Circe panel in half.[95] Nevertheless, the impression of a 'realistic' space is shattered as soon as one realises that the framing portico is seen from below whereas the picture plane is presented from a slightly elevated viewpoint, or rather from a variety of standpoints which do not correspond to the high horizon.[96] Obviously, the painters[97] are playing with differences in perspective. It is difficult to place these observations in any architectonic context of the wall paintings, as the findings of 1848 are badly documented.[98] The floor of the room with the frescoes was never excavated, which means that with regard to the relation between the viewer and the frescoes we can merely conclude that the latter were "somewhere above eye level"[99]. It is even unclear what type

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89 On the inscriptions, which are not taken exclusively from Homer's *Odyssey*, see: Biering 1995, 123–128; on deviations from Homer, see: Small 2003, 98–100.

90 Biering 1995, 156–158; O'Sullivan 2007, 511–513 describes how the continuation of the herd of goats by the water on both sides of the dividing pillar connects panels 2 and 3, how individual acts of violence in panels 3 and 5 introduce and continue the battle in panel 4, while the pillars separate individual scenes (512: „narratological function" of the porticoes); on pictorial narrative in Antiquity, cf.: Squire 2009, 300–356.

91 The fleeing ship to the mid-right in panel 5 is marked as that of Ulysses by the addition of his name.

92 On the narratological terminology "Ereignis" [translated as "event" above] and "Geschehen" [translated as "chronological sequence" above], see: Martínez and Scheffel 2012, 27; on the difference between narrator and monstrator, see: Gaudréault 2009, 72–80.

93 Panofsky 1991, 54–66.

94 Biering 1995, 26–30. O'Sullivan 2007, 505–510.

95 Blanckenhagen 1963, 102; cf. "vanishing-axis principle": Panofsky 1991, 40.

96 On the different perspectives and the various techniques of producing effects of spatial depth, see: Blanckenhagen 1963, 111–112 and Biering 1995, 158–162.

97 Biering 1995 differentiates between, at least, three painters: the painter of the landscape backgrounds, figure painter A (panels 2–5; Gorga fragment) and figure painter B (panels 6–11); on significant differences in painting processes: Biering 1995, 129–154.

98 For a discussion of the excavation reports, see: Biering 1995, 167–180; 195–203.

99 O'Sullivan 2007, 502 (he refers to characteristics of the second style). This would be roughly parallel to the situation in the Vatican today, where they hang above head height. For alternative views, see: Andreae

of room this was: Was it a cryptoporticus, an atrium or a peristyle?[100] An explanation of the functional relation between the images and the room is therefore almost impossible. The extant frescoes[101] merely allow two conclusions: In order to view them adequately, the viewer has to move along them, switching between a view from the distance and a close-up. The topics indicate a philosophical-ethical interpretation of Odysseus as an example of prudence, courage and self-control which was widespread in Hellenism.[102]

7   The Fountain of Life

In the third section of his article, Panofsky comments in passing on "the comparatively retrospective and for that very reason preliminary epochs of the Carolingian and Ottonian 'renaissances'"[103] which pose a contrast to the Romanesque period. The footnote placed at the end of his sentence is accompanied by six plates in total, making this the visually most extensive and self-contained footnote of the article. Panofsky here describes the artistic development of a motif peculiar to Carolingian art: the Fountain of Life or *fons vitae*. Three out of the four examples extant in Carolingian manuscripts are published by Panofsky. By adding an illuminated page from the Syrian Echmiadzin Gospels (6th century) as well as a *tholos* from a fresco which according to him depicts a *macellum* in a villa at Boscoreale (1st century BC), Panofsky visually places the *fons vitae* motif in the context of its development between the poles of a 'flat' and a 'plastic' model of architectural representation, respectively. The sequence of plates is therefore chosen as a visual equivalent and emphasis of his definition of early medieval art as caught between embracing its antique models and their illusion of depth and an orientation towards the surface.[104] And the choice of examples is revealing of the conceptual shift in this third part of the article, from linking the "pictorial mode of organization […] synchronically to the culture of which it is part" to linking it "diachronically as well to the visual development of one symbolic form."[105] The reason for depicting a certain architectural structure in a particular way is sought within the visual tradition itself, by studying potential sources and models available to the artists. This is probably clearest in Panofsky's purely formal comparison between a miniature in the Gospels of St. Médard de Soissons and an antique fresco: The centralised, octagonal or round structure presents a clearly delineated motif which, isolated from its context, is easily described in terms of its representational construction with regard to foreshortening and the illusion of depth. Thus isolated, it can be compared with examples from completely different contexts in terms of material and meaning. As a result, the innovative cultural potential suggested in the text by referring to a 'renaissance' is reduced in the footnote, which presents early medieval artists' endeavours as essentially reducible to the extent of their comprehension of the models and exemplars at their disposal.[106]

1962, 113–114: height of the room 5.5 m; Biering 1995, 175: "the wall decoration which was presumably four to five metres high" ("die vermutlich vier bis fünf Meter hohe Wanddekoration"), 184: "…könnte der Wandstreifen auch relativ niedrig in zwei bis drei Metern Höhe begonnen haben." Cf. Müller 2000, 171–172.

100 Blanckenhagen 1963, 101: cryptoporticus; Biering 1995, 174: atrium; Müller 2000, 172: peristylium (cf. O'Sullivan 2007, 516).

101 If Biering 1995, 172–174 is right in arguing that the Gorga fragment was not part of the extant wall but instead belonged to a wall set at a right angle to it, we have to assume a much higher number of lost pictures.

102 O'Sullivan 2007, 519–526 (including further literature).

103 Panofsky 1991, 50.

104 Panofsky 1991, 48–50.

105 Holly 1984, 140.

106 This is particularly clear in the statement that "[t]he proper significance and context of these perspectives […] are by no means always fully understood in the Carolingian renaissance" Panofsky 1991, 115.

This is particularly misleading with regard to the Fountain of Life motif, which in its Carolingian renderings is unique and innovative, having developed out of intellectual and artistic aims closely connected to the object in which it is presented, the book.

The Carolingian *fons vitae* motif is exclusive to book illumination and closely connected with the Carolingian court school; the oldest example is found in the Gospel Lectionary by Godescalc (Fig. 30, Panofsky's plate 25) which marks the beginning of book production at Charlemagne's court. The position of the motif is key to an analysis of its meaning: All four Carolingian depictions of the motif are found at the beginning of their manuscripts, two as full-page miniatures and two placed in the arch of a canon table.[107] They are firmly anchored in the textual and visual sequence and context of their respective books and the context of their production.

Fig. 30 | Gospel Lectionary by Godescalc, court school of Charlemagne between 781 and 783. Paris, Bibliothèque nationale de France.

107 The full-page miniatures, Panofsky's plates 25 and 27 are: fol. 3v of Godescalc's Gospel Lectionary, made at the court school of Charlemagne between 781 and 783: Paris, Bibliothèque nationale (Nouv. acq. lat. 1203), 310 x 210 mm; fol. 6v of the Gospel book from Saint-Médard de Soissons, made at the court school of Charlemagne around 800: Paris, Bibliothèque nationale (Ms. lat. 8850), 375 x 285 mm (cropped). The examples from canon tables are: fol. 11r of the same Gospelbook from Saint-Médard de Soissons; fol. 11r of the so-called Codex aureus of St Emmeram (Panofsky's plate 30), made at the court school in 870: Munich, Bayerische Staatsbibliothek (Clm. 14000), 420 x 330 mm.

In the Gospel Lectionary, the Fountain of Life miniature concludes the opening sequence of six miniatures depicting the four Evangelists and Christ enthroned, and at the same time it marks the beginning of the text: it contains the Incipit for the pericope of the Vigil of Nativity (Matthew 1:18–21) which starts on the opposite page.[108] Placed at this threshold within the liturgical manuscript is the picture of a centralised structure with eight columns surrounding a low parapet. The conic roof is crowned by a cross, and the whole structure is surrounded by birds and a stag. The interior of the frame is ruled for the text of the Incipit, the lines traced with gold where they are not covered by architecture or animals. It becomes clear only in the later miniature in the Soissons Gospels that the structure contains water (Panofsky's plate 27, here Fig. 31). Here, an oblique view into the building reveals a hexagonal water basin surrounded by eight columns. By contrast, in the top half of the picture it is essentially the interplay of foreground and background (the interior of the roof blending with the exedra in shades of purple) which emphasises the depth of the fountain structure, allowing the pictorial focus to lie on the arch and the cross crowning it.[109]
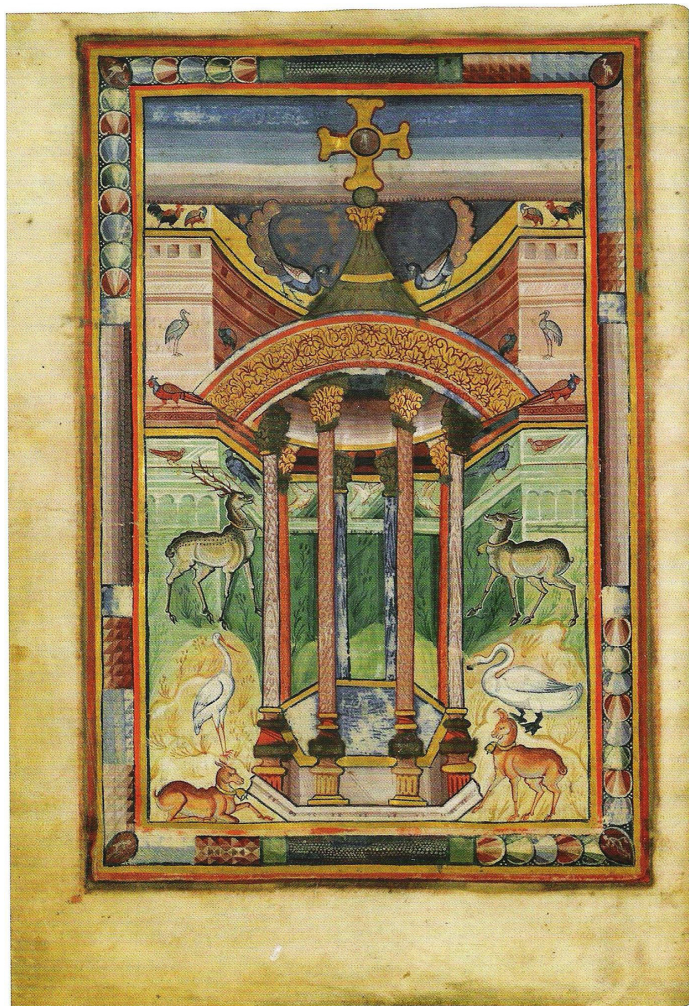

Fig. 31 | Gospels from Saint-Médard de Soissons, court school of Charlemagne around 800. Paris, Bibliothèque nationale de France.

108 IN VIGILIA NATALIS / D[omi]ne Hora[e] Nonae / Statio ad S[an]c[t]am Maria[m] / Sec[undum] Mat[heum] Cap[itu]l[o] III.

109 Therefore, the technique of foreshortening was probably employed specifically for the purpose of allowing us to see the water, rather than being part of a (copied or empirical) system of the representation of depth.

Two studies have shed light on the complex structure of meanings and symbolism that the *fons vitae* motif encompasses in the context of early medieval theology and Carolingian culture.[110] The motif refers to the baptismal font and the sepulchre at the same time.[111] The fountain is connected to medieval water symbolism, referring to Biblical verses and their historical exegesis which associate Christ and the word of God with salvific water (e.g. Psalm 41:2; John 4:14). Patristic authors interpreted the four rivers of paradise from Genesis as the four Evangelists and their Gospels early on (Gen 2:6ff.); Christ is the one source from which Holy Scripture flows. Moreover, Paul Atkins Underwood and Bruno Reudenbach have shown that the specific architecture of the fountain in the Carolingian miniatures is closely bound to the Eusebian tradition of placing a ciborium at the beginning or end of the canon tables to represent in architectural terms the unity and harmony of the four Gospels and the totality of the Holy Scripture contained in them.[112] It is therefore the analogy with the unity and structure of the Gospel texts which is established in this architectural motif. Elements such as the columns, the arch-like rendering of the cornice in both miniatures and the birds perched at its ends are the main elements of early medieval canon tables which developed an architectural rendering of the congruence of the Gospels by combining visual and textual elements, possibly from as early as the fourth century.

It may be argued, then, that it was less the kind of models and exemplars available to the Carolingian court school artists which influenced the way the *fons vitae* motif was represented, but the specific context within which it was developed and within which it functioned: the book. The motif had to be polyvalent enough to transport the authority and harmony of the four Gospels by making explicit both the reference to the arched structures of the canon tables and the cohesion between the one source of Scripture (Christ) and its four 'rivers' (the Evangelists), carrying references to instances and their localities as distinct as baptism, paradise and the holy sepulchre. The representation of space was less a concern than the relation to the space of the book – the visual and textual knowledge contained and symbolised therein.

8   Conclusion

As ground-breaking as Panofsky's essay has been for the discussion of a historiography of spatial perception and spatial representation, at the same time it should caution us about generalisations with regard to *one* perspective of Antiquity. The analyses of selected pictorial examples have demonstrated the multitude of perspectival systems. Along with James Elkins, we can therefore also speak of "perspectives, in the plural"[113] for art before the early modern period. Antique and early medieval examples show clearly how strongly the very heterogeneous cultural contexts influenced the choice of perspectival techniques. Material and medium of the objects or substrates discussed (vases, mosaics, frescoes, reliefs and books) are just as important as their function and the spatial conditions for their perception. Placing images on walls in burial chambers, palaces or domestic homes, on the floor or on mobile objects such as vases or books determines certain modes of perception, which were either intended or at least accepted by the artists and craftsmen. In contrast to

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110 The most extensive study of the motif is Underwood 1950. A conclusive treatment of the topic is provided by Bruno Reudenbach in his study on the Godescalc Gospel Lectionary: Reudenbach 1998, 51–78. The most recent – albeit very brief – publication is Besseyre 2007. The following is based on the material collated by the aforementioned studies.

111 For a detailed discussion of this, see Underwood 1950, passim. The production of the Gospel Lectionary is closely related to the date of Pippin's baptism by Pope Hadrian in 781: Reudenbach 1998, 68–78.

112 Reudenbach 1998, 58 ("Textciborium"). Cf. Underwood 1950, esp. 118–131.

113 Elkins 1992.

the spatial configuration of Renaissance linear perspective, which was mostly understood as a static one, the antique and medieval images demonstrate the importance of the spatial and temporal dimension: The viewers (or their gazes) were mobile, were set in motion by the images (for example by monumental friezes), and figures within the picture could turn into imaginary viewers who structure the spatial configuration of the composition. There are manifold and complex alternatives to the often criticised early modern gaze. For many antique images, a systematic use of pictorial elements which generate space is typical, other examples exhibit a more playful approach. While the painting of the second Pompeian style created wall paintings which are very close to Renaissance perspective (for Panofsky and many others they are more or less a first discovery of linear perspective), at the same time and later on these were deconstructed in favour of 'irrational' imaginary architecture with a predilection for latent images.

Instead of looking for the realism of images and judging artistic pictorial conventions according to their relation with physiological and psychological aspects of seeing, our attention has to be directed towards the multitude of semantic and cognitive functions connected with individual pictorial elements, and towards contextualising this historically. Panofsky's observation that the perspectival system prevalent in a certain culture could, in terms of a pictorial technique of representation, function as a cognitive frame and influence the way we view the world,[114] makes his concept of "perspective as symbolic form" seem a first step towards a perspectivism seen more broadly, a hermeneutic approach which can include multimodal, i.e. different pictorial, diagrammatic, linguistic or textual systems of symbolisation.[115]

114 Cf. Alloa 2010, 26.
115 Cf. Wood 1991, 23–24; cf. Daniel Werning's contribution above.

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