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Review:

Lise Bek, *Towards Paradise on Earth: Modern Space Conception in Architecture*, (Odense University Press, 1980),¹ *Annals of Science*, London, Vol. 39, No. 3, (1982), pp. 320-322.

The author is concerned with changing conceptions of space in architecture and concentrates her analysis on three periods: the Italian trecento (Pt. I. 1-2), the quattrocento (Pt. II. 1-2) and Antiquity (Pt. III. 1) ending with a section concerning Renaissance views of Antiquity. In the architecture of Antiquity and of the trecento the author finds that (234) "spatial design is based on the visual effect of the elevation of the building and it is therefore the optical principle of axiality that constitutes the spatial structure". This is contrasted to the architecture of the quattrocento where the author finds a geometric axiality based on linear perspective which, she claims, was a result of humanistic ideology and of Leon Battista Alberti's ideas in particular.

To illustrate this shift from optical to geometrical axiality the author begins with examples from the city states (Florence, Piazza della Signoria; Siena, il Campo). Here she finds a shift from the circle to the trapeze as ideal form (54). Throughout her book she concentrates on the domestic architecture of the ruling classes on the assumption that these best reflect a combination of decision and power to change styles. Although architectural structures are the author's prime concern, she is also very much interested in the role of frescoes, paintings etc. within these structures, it being assumed that the positioning of such works also reflects this shift from optical to geometrical axiality.

Parallel with this shift she identifies a change in the host/guest relationship. In Antiquity (202) pictures are seen from the point of view of the host or guest of honour, "not of the advancing stranger". In the trecento she finds (55) an intimate form of representation whose distinctive trait is the guest's surprise on his sudden encounter with the space. In the quattrocento (73) the guest is ... "also the friend, his host's equally having freedom to enter without ceremony".

A knowledge of Latin and Italian is assumed: long passages are cited in the original language without translation. The author's analyses throughout is erudite: she is careful not merely to make generalizations; she considers alternative possibilities and always bases her claims on the evidence of specific buildings and monuments. This makes her work a worthwhile contribution. Throughout her book she makes stimulating suggestions. For instance she argues convincingly (200) that the Roman written descriptions of domestic architecture between Sulla and Hadrian are not Utopian depictions of an ideal but rather, realistic verbal interpretations of buildings of the period. She provides groundplans and encourages us to see various frescoes and other decorations in the context of their original spatial settings.

¹ (Analecta Romana Instituti Danici. IX. Supplementum).

As is often the case one of the most stimulating aspects of Dr. Bek's book is also most problematic. She is concerned with finding a general theoretical framework to account for the changes that occur between Antiquity and the Renaissance. Dr. Bek is convinced that architectural practice is linked with a) the literature; b) with the theory of vision; c) with the practice of representation and d) with the theory of representation of a given period.

As regards a) this leads her to claim that (30): "there is a certain similarity between the effect of the Florentine piazza design on the entering viewer and the perceptual process formulated in literature". To illustrate this claim examples from Dante and Petrarch are compared with architectural instances. Apart from the question of a possible biased sample (two authors against many architectural samples), there is a more serious problem whether verbal and visual modes of communication need convey the same spatial intent/content. Why should Dante's verbal description of the conceptual worlds of hell, purgatory and heaven necessarily parallel the perceptual modes involved in real architecture?

With respect to b) the assumed links between architecture and optics are equally problematic. In Antiquity optical theory is meant to be epitomized by Euclid's Optics. If there is a change to architectural practice in the trecento, there ought consequently to be a parallel change in optical theory. Euclid's text as such was not changed. The author mentions a mediaeval shift from Plato's extromission theory to Aristotle's intromission theory but this was due primarily to the early eleventh century Arabic optical writer Alhazen. Even for the quattrocento the author gives no evidence of a change in Euclidean theory. Instead she notes (53) "the growing interest in optics and perspective which had its point of origin in Euclid's theory".

Concerning c) the implication would be that each architectural structure involves a specific artistic style of fresco or painting, a difficult assumption because collectors in Antiquity and ever since have tended to be eclectic and more often preferred to display entertaining diversity than worry about strict period tastes. As for d) the author is enthusiastic in her use of the term perspective but no clear link is established between architectural practice and theories of representation: a fundamental problem being that notwithstanding the perspectival treatises of Alberti, Filarete, Francesco di Giorgio Martini, Piero della Francesca and Pacioli which emphasize practice, treatises on representational theory are, with the exception of Leonardo, a post-quattrocento phenomenon.

Deeper questions loom here. One of the dramatic consequences of linear perspective was that it introduced a means of linking an object in the everyday world, a model thereof, a three-dimensional drawing and an abstract geometrical version of the same. It transformed the traditional opposition between abstract and concrete into a spectrum of recording processes. As a result it stimulated new concern with relating a drawing in a book and even the description in a book with actual objects in the natural world, to the extent that we can in our day expect or at least hope that there is some relation or parallel between theory and practice, between perception and action, between prescription and description. The problem is that this whole way of seeing relations is new, or at least post sixteenth century.

Villard de Honnecourt may be concerned about drawing a real lion but he has little interest in a one to one correspondence between the lion he sees and the picture he

draws. In the Mediaeval bestiaries these questions either of clear distinctions between real/imaginary or clear relations between real and depicted simply do not hold. The discrepancies that Morgan discovered when he set out to photograph practical examples of Vitruvian precepts (cf. Dover ed. of the The Books of Architecture) suggest that the same problem held in Antiquity. The methodological dilemma of Dr. Bek's analysis is that she wants to examine past historical periods in terms of both distinctions and relations which they themselves did not, probably could not make. Perhaps a different framework of analyses is needed which has built into it a dynamic concept of links between the variables that interest the author: architecture, literature, theory of vision, theory of representation and practice of representation.

In a sense questions as large and important as those which Dr. Bek raises, defy adequate treatment within the limits of a single volume. She has wisely decided to focus on domestic architecture. But then, in Antiquity, it was particularly in temples that optical and spatial principles were introduced, a tradition that continues into the Renaissance. Some of the most fascinating perspectival illusionistic spatial combinations of optical effects, painting and architecture occur in a religious context: e.g. Bramante's imitation wall in Santa Maria presso S. Satiro or the ceiling in 11 Gesu. Any discussion of organized spatial constructions should, moreover, encompass the military tradition which develops extraordinarily symmetrical shapes as early as the 12th century, (e.g. Beaumarais in Anglesey).

With respect to the section on the Renaissance and the tradition of Antiquity this problem of a biased sample is particularly apparent. Vitruvius is discussed as if it were a static text. No attention is given to the role of the Vitruvian commentaries, e.g. Cesariano (1521), Caporali (1536) or Rivius (1547) the importance of which has been emphasized by the late Frances Yates. Mention is made of Alberti, Francesco di Giorgio Martini, and Palladio in connection with the study of ancient ruins, but no consideration is given to the formidable role played by non-Italians in this process of making the Roman ruins famous: e.g. Martin Heemskerck, Francisco d'Hollanda, Androuet du Cerceau, ...

That there is so much more that could be said concerning these themes is a compliment to the depth and importance of the questions which Dr. Bek has raised in her stimulating book. It is precisely her carefully documented approach that makes us aware how much more documentation is still needed before one can hope to resolve the questions here raised.

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