The importance of the religious thinking developed in ancient Israel is generally recognized, but there is something like a consensus that secular learning there was rudimentary. P. Dupont-Sommer's judgement, contained in his chapter in R. Taton's well-known reference work Ancient and Medieval Science I (London, 1963), pp. 124ff., is probably still fairly representative: Israel's science was largely that of her neighbours, and Hebrew geometry in particular was extremely rudimentary, and applied exclusively to practical problems, though with considerable skill. Yet there remain some doubts. Israel and Judah were states of a political and military rank not inferior at times to that of their more important neighbours in the Syro-Palestinian region: this implies that the tasks facing those in charge of practical affairs in peace and war must have been varied, considerable, and at times quite sophisticated, requiring proficiency in mathematics, engineering, and other sciences. This would in turn suggest that such people must have had a corresponding theoretical and practical training, and one may ask whether this was really so inferior to that given to trainees to the scribal class elsewhere, which included scientific subjects.¹

Because of lack of evidence no comprehensive answer, positive or negative, can at present be given to this question. However, there is one facet of ancient Israelite material culture, namely architectural planning, where archaeology has by now made a respectable amount of data available which have been made the object of study.

The phenomena concerned may be grouped under three headings. At its most comprehensive, architectural planning may involve the layout of whole settlements, both towns and villages; in a more restricted way, urban quarters may be affected by planning; lastly, individual buildings may be the concrete expression of a plan design realized only once, or perhaps repeated serially. Now architectural planning involves training in certain mathematical and geometrical principles and their practical application: the study of the results achieved by the ancient Israelite planners should thus offer some clues concerning the degree of proficiency they had achieved in these fields of applied science. A comparison of the quality of their work with that found in the neighbouring countries will show whether their competence was respectable or not, in terms of ancient Near Eastern applied science. There remains one important question, namely, whether the architectural planners active in ancient Israel were indeed Israelites, or rather foreign specialists (and in particular, Phoenicians) in the service of royal or other masters. A close consideration of the kinds of architectural plans executes in Israel, compared with those found in the neighbouring lands, may offer some hints as to what the answer to that question should be, and also tell us with which social strata various types of planners were linked.

We may begin our survey by considering the methods of planning used in the ancient Near East, and more particularly in the two great cultural centres of Egypt and Mesopotamia. In Egypt, drawings both of plans and elevations, and of models of intended buildings were executed (and these have been discussed repeatedly); similar drawings were also employed in ancient Mesopotamia. The best of these drawings might come close to true

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