INTRODUCTION: THE POWERS OF TU

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The images (tu 圖) are the warp threads and the written words (shu 書) are the weft. As warp and weft alternate to form the pattern of a fabric (wen 文) [so images and written words alternate to form the meaning of a text (wen 文)]... To see the writing without the image is like hearing a voice without seeing the form; to see the image without the writing is like seeing a person but not hearing his words.2

The contributors to this volume focus on tu 圖, technical images, and on their relationship with written text in the production of technical knowledge. The articles encompass a broad range of graphic forms and categories of specialised knowledge, from metaphysical cosmograms and magical talismans through mathematical diagrams to coroner’s charts. While we cannot claim to offer a comprehensive span of all significant forms of tu, this is, as far as we know, the first collection of studies devoted specifically to tu as technical images, and to the functional relation of such tu to the written text which almost invariably accompanies them.

In his well-known treatise on the importance of tu, the Song scholar Zheng Qiao 鄭樵 (1104–1162) insisted that tu played as essential a part as written words in the techniques (or arts) of learning, xueshu 學術.3 The best way to convey specialist information was to lay it out in an illustrated register, tupu 圖譜, a sequence of rubrics where for each item a graphic illustration was paired with an explanatory text. Among the fields of knowledge which Zheng Qiao listed as depending on tu for the adequate transmission of knowledge were a number whose technical dimension is immediately evident to modern readers, who would naturally be inclined to link the term “technical” with technology or science as we know them today.4 These fields of

1 This introduction, though written by a single author, is the fruit of intensive discussions between the three co-editors.
2 Zheng Qiao, Tupu lüe, Tongzhi j. 71/837a.
3 Xueshu is more usually translated by the single term scholarship.
4 Studies of tu which assess them from the perspective of the history of technology and/or science include Edgerton (1985), Haudricourt and Métailié (1994), Golas
learning included geography, cosmology, building, the construction of implements and machines, astronomy, mathematics, military science and medicine. But Zheng Qiao’s list of subjects where *tu* were essential aids to learning also included linguistics, law, official rankings, the study of ritual, music, history, ethics and fine arts, as well as talismans and Daoism. While Zheng Qiao’s essay highlights *tu* as tools of scholarship and understanding, *tu* also served as important instruments of statecraft and government, both material and symbolic, and they played a key role in pedagogy. Furthermore *tu* were closely associated with craft skills, and with magical arts and cosmological techniques such as divination or geomancy. Not surprisingly, different technical fields such as magic, law and agronomy generated very different types of *tu*. Some represented objects, plans, figures or scenes in more or less realistic fashion; others were maps or abstract diagrams or schemata; others consisted entirely of arrangements of written words. There were also significant historical shifts in the predominant forms and functions of *tu*, associated not only with the evolution of a particular field but also, for example, with changes in elite ideas about education, or with the rise of woodblock printing.

What then were the shared characteristics of *tu*, and what distinguished them from other Chinese visual categories such as *hua* (picture or painting) or *xiang* (image or icon)? Taking into account the full graphic and thematic range of *tu* and the contexts in which the term was applied, it becomes apparent that in pre-modern Chinese usage the term *tu* was not—as often supposed today—a general term for pictures, of which pictures of technical themes were one sub-category. In fact it was a specialist term denoting only those graphic images or layouts which encoded technical knowledge: *tu* were templates for action. This concise definition seems to us to capture the essence of *tu* across its many variations in pre-modern China. It elegantly resolves many of the confusions about the apparently fuzzy boundaries between *tu* and other graphic categories which have puzzled historians trying to place *tu* as an intellectually coherent category. It highlights the fact that from the Chinese perspective *tu* was not a *stylistic* but a *functional* category: *tu* were instructive images


5 Reiter (1990: 314) notes that Zheng Qiao’s bibliography of works whose title included *tu* (divided into two sections listing works where the *tu* had been preserved along with the text and those where it had not) is not very reliable.

6 The relationship was not always straightforward, as will be discussed below.