

## Tectonic

Greek in origin, the term tectonic derives from the term tekton, signifying carpenter or builder. This in turn stems from the Sanskrit taksan, referring to the craft of carpentry and to the use of the axe. Remnants of a similar term can also be found in Vedic, where it refers again to carpentry. In Greek it appears in Homer, where it alludes to the art of construction in general. The poetic connotation of the term first appears in Sappho where the tekton, the carpenter, assumes the role of the poet. This meaning undergoes further evolution as the term passes from being something specific and physical, such as carpentry, to a more generic notion of making, in the poetic sense.

That the idea of tectonic was consciously revived in nineteenth century German thought is suggested by the somewhat tautological definition of the term in English where it refers quite simply to building. That the term acquired an altogether richer connotations in Germany is implied by an 1850 definition where the architectural scholar, K.O. Muller would define the term as pertaining to "a series of arts which form and perfect dwellings and places of assembly ...we call this class of artistic activities tectonics. Their highest point is architectonics which rises above the trammels of necessity and may become powerfully representative of deep feelings."

Strongly influenced by Muller, Gottfried Semper was to endow the term with similar connotations in his categorical break with the Vitruvian paradigm of utilitas, firmitas, and venustas. Semper announced this rupture with the publication of his *Four Elements of Architecture* in 1852, wherein a new ethnographic theory of culture divides the primitive hut into four basic elements; (1) earthwork, (2) hearth, (3) framework/roof, and (4) a light-weight enclosing membrane. Semper went on to classify the process of building and, by extension, craft production into two basic procedures; into the tectonics of the frame, in which light-weight, linear components are assembled so as to embody a spatial matrix and the stereotomics of the earthwork, formed out of the repetitious stacking of heavy-weight units. That this last implies load-bearing masonry of some kind, be it stone or mud-brick, is indicated by the etymology of stereotomic, breaking down into stereo, stone and tomia, cutting. This tectonic/stereotomic distinction was reinforced in German by the fact that the language differentiates between two classes of wall, between Die Wand, indicating a screen-like woven fabric, such as a wattle and daub wall and Die Mauer signifying a massive fortification.

In his 1963 essay *Structure, Construction, and Tectonics* (1963), Eduard Sekler distinguishes between structure as the fundamental ordering principle of a work and construction as a particular physical manifestation of this principle and tectonics as an expressive form representative of the other two modes.

When a structural concept has found its implementation through construction the visual result will affect it through certain expressive qualities which clearly have something to do with the play of forces and corresponding arrangement of parts in the building yet cannot be described in terms of construction and structure alone. For these qualities which are expressive of a relation of form to force, the term tectonic should be reserved.

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*From course description "Studies in Tectonic Culture" at Columbia University GSAPP, fall 2001*