

[ABSTRACT]

This thesis deals with the development of dry construction as constructive and compositional tool since its theoretical origins in the nineteenth century in Central Europe to its American development in the twentieth century through its own building tradition and industrial capacity. So it arises in two distinct parts theoretically and formally: the theoretical Europe, the executive American.

This approach justifies a panoramic view where the Great Exhibition in London and the construction of the Crystal Palace in 1851 is the essential starting milestone. By the uniqueness of its construction but also because it links with a main reference of Central European materialism, Gottfried Semper. The vision of Semper about style as an only child of necessity, really expressed how behind different material progress was always a development of the technique and above all a change of mind.

In parallel Bötticher theory about architectural tectonics integrative function as law, matter and form that organizes the relations between the parties, focusing on the joint and the articulation of all members generally would also allow a new revolutionary vision composition and construction. As revolutionary as the new concepts of skeleton and skin.

The mid-nineteenth century brought this necessary change in mindset that is driven by competition with the engineer, but also a new conception of art softer, extended to all levels of human life, which would allow the apprehension of architecture as an autonomous discipline, linked to the development of the Applied Arts. So the architect was offered the option of a architecture of service, close to the problem of the function and construction as an alternative to Ancient Art. In this century academic revolutions led to the appearance of Schools of Design, with Central European *Kunstweberschulen* to the head, which added to the movement of International Exhibitions and National Competition led to the emergence of the German Werkbund. Werkbund and International Exhibitions pushed for the new type as an industry not only architectural and they also allowed the empire of the object, derived and driving force to a time of industrial standardization. This speech of XIX Central European materialism linked to new Applied Arts, would hardly permit a convenient new way to compose and build. Not the only but one way differentiated, detached from the *beaux-arts* through a new object-based design. The Werkbund had already paved the way with the thesis and antithesis of typing and individuality, with type and dimension as tools to tabulate human reality. This substrate was combined with the concepts of Viennese *Wagnerschule* *problembewusstsein* -the idea of architect as agent who solves problems- and *gemütlichkeit* -the comfort that should arise from good design-; all of them would permit the emergence of the Bauhaus. In the new concept of art, retail and linked to all facets of life, enabled a design method which operates at all scales, beyond any merely formal proposal. A composition method that allowed the designer, not only an architect, incorporate constructive material problem as a compositional tool and more. The new architectural object emerged from the possibilities of the construction system, the method of assembly or the catalog of items would allowed, even beyond the function. And there dry construction with its catalog of components and assembly law became obviously as the true tool of the new architecture, naturally linked to Bötticher or Semperian heritage and paradoxically also to the speech of Wagnerian *Gesamtkunstwerk*.

But also in the years of the Weimar Republic the art scene was dominated by a deep *Amerikanismus*. The Europeans dreamed America as the land of the new types-factory and steel skyscrapers, the process of standardization and management control through Taylorism and Fordism. The *Amerikanismus* merged with the new materialism and developed through the proposals of the Weimar Siedlungen. These new experiences, beyond its apparent functionalism, showed a common vision about the systematization of construction and composition, all based on growth laws that operate at different scales. These laws were designed, just the same the object itself as a catalog of elements, their production possibilities, its assembly and the temporary control of the process and the economic management of the construction.

From this Central Europe, revolutionary and experimental, the *Amerikanismus* advantaged children went to the young nation overseas. These figures would become the new continent pioneers of a new truly American tradition. The phenomenon was foreseen by Henry Russell Hitchcock sharply from 1937: the interwar European experience found in the American traditional construction methods the starting point for formal and technological innovations that would enable the creation of a new, contemporary American tradition.

And from this point the thesis voluntarily tries to demonstrate how the theory was completely unnecessary in America and everything was endorsed through the action. The European architect had succeed to detect, separate, analyze and systematize the relationship that existed between type, tradition and function through technology and major academic reforms. He brought these abstraction mechanisms of research and art and found in the American pragmatism, optimism and industrial organization a wide range of tools for all kinds of new approaches. The basis of American building tradition in steel and wood accomplished the demands of a modern dry construction system: dimensional coordination, limiting variables, standardization, prefabrication, industrialization, distribution, planning and minimizing the work *in situ*.

American industrial processes included a search of the object reproducible, consumable, an incessant need of renovation and type object to feed the cycle of the assembly. The obsolescence meant the assembly and disassembly, enlargement and the possibility of customization American own habitat.

In short, the Central European avant-garde vision of architect migrated around the type and its relationship to human habitat, through technological tradition and proportion, allowed to develop a speech of light and dry industrial construction and through him, the conquest of new guys and a new tradition. The architects emigrated did so in different waves and at different times, so every one of those used to illustrate this process, Schindler, Neutra and Breuer, specific ingredients brings European tradition of art and Amerikanismus own. The three collaborated on the creation of a new American architecture emerged from World War II around programmatic type, construction types and the standardization of building components dry with both wood and steel as the key link. This new tradition achieved a natural continuum through the technology itself and is on the west coast, in California of the Case Study Houses, which clearly shows this process as stated in the conclusion.