**Introduction**

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With the advent of information technologies in the postwar period came the emergence of new fields of knowledge. One of these was cybernetics, which focused on the nature of communication systems between humans and machines, thereby reconsidering our perception of natural and artificial environments. From Reyner Banham’s Environment-Bubble to Nicholas Schoffer’s Cybernetic Tower, Kisho Kurokawa’s Metabolist model, and, more recently, Greg Lynn’s Strand Tower project, the information sciences and their related technologies have dramatically transformed our perception of the environment and our ability to act and react toward it.

The shift from a fixed to a dynamic model of reality led to the movement from architectural objects to systems and from an idealistic to a statistical understanding of the architectural form. Here, it can be argued that the ever-increasing influence of information technologies in architecture has even affected its nature as a discipline, triggering a movement from autonomy to transdisciplinarity. These various processes pose new challenges to architectural research and point to the following questions: What is the nature of the architectural object in the post-digital age? What is the potential of architectural models in describing, visualizing, or simulating these dynamic knowledge systems? How is the transdisciplinarity of architecture defined in the current convergence of knowledge? How can technological systems and infrastructures dominate the formation of landscapes or architectural interventions?

In this special issue on networks and objects at work, architectural theorists, historians, designers, and practitioners discuss the history and current conditions of technological systems that control our environment, whether natural, artificial, or virtual. Architectural theorists **George Teyssot** and **Alessandra Ponte** report on the emergence of architectural methods for controlling indoor climate, as described by 18th-century economist Carl Bernhard Wadström. Already in that period, the architectural object transformed into a machine capable of acting and reacting to its environment. Architectural technologist **Aaron Sprecher** addresses the complementary notions of naturalized technologies and technologized nature to express the multiple influences exerted by information theories on the architectural field. Here, the architectural form and its territorial organization increasingly resemble an informational organism in mutation. As architect **Hanan Peretz** describes (in the Hebrew section), this increasing expansion of information assets and networks calls us to rethink the nature of our urban environment. The city is here approached as a cybernetic system that continuously absorbs and releases information bits. This idea of embedding information from within the object is a latent condition in engineer **Orly Talyosef**’s proposal for generating synergy between the virtual state of parametric modeling and its physical construction. Such a movement in production from a mere architecture of idealistic objects to design systems is an essential feature of the pedagogical and experimental protocol offered by architectural designer and technologist **Chandler Ahrens**. Here, a unique set of design experiments bridges the virtual and physical conditions of architecture as an emerging system of information screening, streaming, and resampling.

The following essays offer a multiplicity of historical, theoretical, and technological perspectives regarding the nature of architecture today, an architecture that is more sensitive than ever to the human, the machine, and the environment.