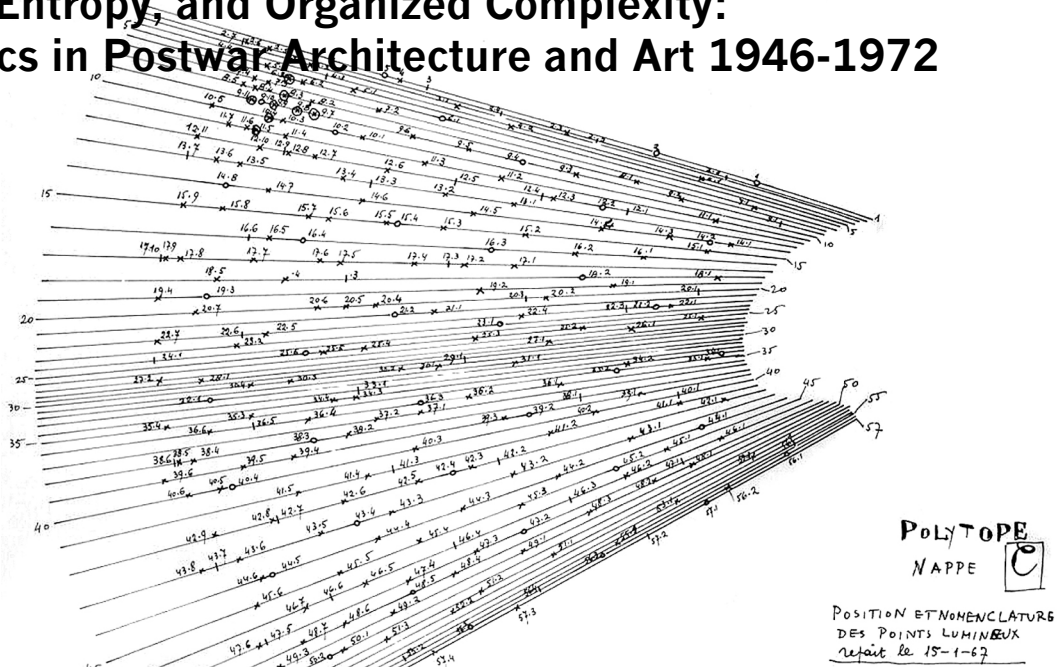


Arch 3819/5819; cross-listed with Arch 4408/6408

Meetings: T 10:10am-12:05pm

Instructor: Branden Hookway (bh98)

## Systems, Entropy, and Organized Complexity: Cybernetics in Postwar Architecture and Art 1946-1972



As software and computation take an ever more central role in contemporary practice and culture, the postwar discourses of cybernetics have received renewed attention. Both architecture and art have sought out precedents for their engagement with digital technology in postwar practices informed by the new sciences of information theory, communication theory, systems theory, and cybernetics that emerged out of the Second World War.

The aim of cybernetics, in the words of its most prominent theorist Norbert Wiener, was “to find common elements in the functioning of automatic machines and of the human nervous system, and to develop a theory which will cover the entire field of control and communication in machines and living organisms.” It was inherently interdisciplinary in ambition, expanding from a basis in engineering, physics, and physiology to encompass work in psychology, sociology, anthropology, economics, ecology, and philosophy, and exerting a profound influence on architecture, art, and urbanism. For architect and planner Richard Llewelyn-Davies writing in 1960, “our architecture is influenced at an unconscious level by our ways of thinking: ... The new mathematics, developed as it partly is from the need to solve human and biological problems, problems of organized complexity, as Warren Weaver has called them, is worthy of great architecture.” A number of postwar practices may be viewed as cultural responses to problems of organized complexity: from Team X to the Metabolists; from Fuller to Archigram and “Non-Plan”; from Kepes’s language of biological form to Banham’s “gizmo”; from the Eames’ multimedia practice to office landscapes and systems furniture; from the Independent Group to the Situationists; and from Smithson’s entropy to Lippard’s dematerialization of the art object.

This seminar will focus on the influence of cybernetics on postwar architecture and art, with an emphasis on how this discourse forecasts and illustrates issues in contemporary culture and practice. The course will include lectures, seminar discussions, and short student presentations intended to help develop projects that align with both course content and individual interests. Readings will be drawn from historical treatments and foundational texts of cybernetics; postwar era publications in architecture, art, urbanism, and media theory, and contemporary reappraisals of postwar culture.