Andreas

46 Warrington Crescent,
London, W9 1EP
andreas@andreasmelas.org
www.andreasmelas.org

The exhibition *Fate of a Cell* presents a body of works from 10 artists that articulate the various scales, qualities, and characteristics of cellular structures, systems thinking and human settlements. The theory of Ekistics authored by architect Constantinos A. Doxiadis (1913-1975), anchors the works in their collective quest to present new directions for human settlements based on human relationships to nature and technology. Cellular units are coded and programmed over time, with patterns of human growth activity across various social, natural and technological ecosystems. These ideas are questioned, referenced, and unpacked by artists: Aristide Antonas, Bia Davou, Lois Dodd, Peter Halley, Lena Henke, Charlotte Posenenske, Ettore Sottsass, Vivian Suter, Oscar Tuazon and Constantinos A. Doxiadis.

The etymologic origin of the word cell (Latin) is celare, to hide, conceal or cella, a small room. In the 12th century, cell was used to describe a small monastery and in the 14th century, a small room for a monk or a nun. By the 17th century organic biological forms are described as cells and scientific biological discoveries in the 19th century introduce terms like cell-division, cell membrane and cell-body to our lexicon. The microscope revealed invisible cellular structures of plants and animals; typically circular in form, containing a nucleus surrounded by a thin membrane. In 2020, the Covid 19 pandemic revives the notion of the cell and the consequences of individual and collective action.

The circular diagram of the cell is a biological truth imbued with mythological and symbolic meaning. The circle is a universal symbol of totality and wholeness, infinity, with spatial and temporal limits. In nomadic cultures, dynamism and movement was symbolized by tents erected in a circular plan. Concentric circles symbolize solar and lunar domains across their phased cycles. The variables of time; past, present, and future are depicted as three concentric circles, interdependent of one another. From microscopic to cosmic scales, cellular cycles of growth and death are influenced by human interaction with nature. The traces of this cyclical growth are found in works of art and architecture.

Circular cellular forms, concentric circles and rings, lifted from nature, are often used to articulate order, unveil symbolic meaning, and propose a new form of architectural urbanism and growth. In order to reach a city of optimum size, Doxiadis proposed a science of human settlements titled Ekistics; that considers “the principles man takes into account when building his settlements, as well as the evolution of human settlements through history in terms of size and quality.” This comprehensive approach includes the entire range of settlements; from “primitive” to “developed,” broken down into a “complex system of five elements – nature, man, society, shells (that is buildings), and networks.” This new model for metropolitan growth responds to human dimensions as seen through the “economic, social, political, technological and cultural” layers. The tripartite system incorporates “natural, social and man-made elements” in an attempt to invent “general principles and laws” for urban growth that are an “extension of man’s biological characteristics.” In this science, the human condition confronts natural terrestrial and cosmic dimensions through the articulation of energy.

Melas

Doxiadis defines several principles that have shaped human settlements over time. The first principle involves maximizing human contact with the elements of nature. Our obsession with conquering and controlling nature via technologic and instrumental means, blind us from determining our optimal relationship with nature. We do not know when we have reached our optimal relative state because of the voracious appetite to dominate natural resources and energy. This domination is driven by the value of excess, and is not related to human needs and their impact on the health of our environment. If we are presented with the possibility to extract more energy, history shows we blindly extract more without calculating the negative impacts of pollution. The second principle discloses our tendency to expend the least amount of energy and effort as we determine the structures, forms, and routes of our physical world. The third principle determines our protective space from other people, animals, and objects by separation; to ensure we maintain our sensory and psychological comforts. The walls of a house, transportation routes, fortifications and barriers are physical manifestations of this third principle. The fourth principle designs a physiological and aesthetic ordering system to optimize our relationship to the environment; "nature, society, shells (buildings and houses of all sorts), and networks (ranging from roads to telecommunications)." This ordering system directly affects architecture and art. In the fifth principle, humans organize their settlements to optimize the previous four principles in present contexts and conditions to synthesize a "balance between man and his man-made environment."

The key factor that directly affects the fate of a cell involves "the distance man wants to go or can go in the course of his daily life." The individual makes up the primary unit. The secondary unit is the personal space that belongs to the individual, and this space can be shared. The third unit is the family home and the fourth unit is a group of homes; a collection of cells that form a society. The fifth unit encompasses all human settlements on planet Earth. The maximum personal walking distance in a day creates a transit radius from which to measure from. When one walks, one has access to more points of contact and transactional exchanges. As a city grows, the car greatly increases the transit radius and allows for rapid growth, migration, and class displacement, but ultimately reduces the points of contact. In ancient Athens, Perikles' pedestrian route from home to the Assembly allowed him to meet approximately 100 to 150 people which gave him a consistent daily sample of public opinion. This path traveled provided many points of contact that contributed to his democratic duties as general of Athens. Thus, the design and form of units at varying scales presents an "extension of man in space (in terms of his physical dimensions and senses) and follows biological and structural laws." Understanding the genesis of these forms - morphogenesis – allows us to identify patterns that can inform an empirical system of growth; a programmed (computed) synthesis of conditions from the human and natural domains. The emergence of new patterns and dynamic systems inform a feedback loop of new general principles and laws for cellular growth. This show grants us the opportunity to experience these concepts in the present qualitative and quantitative realm, freed from the limits of computational programming and empiricism. One navigates and measures the transformational forces of human settlement and nature through direct synesthetic experience. The symbiotic relationships override the limits of instrumental programming and express the full dimensions of sensual experience, offering a new apparatus for Ekistics.

Sotirios Kotoulas

*all quotes by Constantinos A. Doxiadis from Ekistics, the Science of Human Settlements, 1970.