

published *Elements of Mathematical Biology* (1924/1956). Among the references in Zenetos's article "Town Planning and Electronics" published in the seventh issue of *Architecture in Greece* is Jean Fourastié's *Idées majeures* (1966). Fourastié was a French economist, notable for having coined the expression *Trente Glorieuses* to describe the period of prosperity that France experienced from the end of World War II until the 1973 oil crisis (1945-1973).

In the part of his work on "Electronic Urbanism" that was published in the seventh issue of the annual review *Architecture in Greece*, Zenetos's analysis was focused on infrastructure, while the part of the study that was published in the eighth issue of the same annual review was centred on housing and services. Zenetos's vision about socializing through social networks seems particularly timely, as it imagines the possibility for inhabitants to "be everywhere and nowhere". What is worth mentioning is the fact that Zenetos really desired to implement "Electronic Urbanism". This is not evidenced only by his writings but also by the fact that he provided construction details for his design details. Additionally, in 1969, he suggested to implement it in Greece. Zenetos's technical rationality makes it clear that for him the principles of "Electronic Urbanism" were not utopic but pragmatic. His technical rationality is especially visible when he pays attention to the shared vocabulary surrounding patents and inventions, which also characterized the communities of scientific societies and associations of which Zenetos was an active member.

AROUND THE INTENTION TO ELIMINATE TRANSPORT IN THE CITIES

In February 1972, in an editorial of *Science* entitled "Old Cities, New Cities, No Cities" the following question was raised: "Why cannot people live wherever they wish and congregate electronically?" (Seaborg, 1972, p. 709). A year later, Zenetos introduced his article "Town Planning and Electronics" published in the seventh issue of *Architecture in Greece*, devoted to the theme "The

education of the architects”, with this same question, paying special attention to the idea that “[m]an desires, and has a right to acquire, a ‘home’ in a quiet environment close to nature and at proximity to his place for work and the various public services” (1973a, p. 113). Taking as his point of departure the idea that “[t]echnology properly used may be the only short-term answer to the city’s problems because it will take time to check population growth” (Seaborg, 1972, p. 709), Zenetos argued that “[t]he remoteness between living and working areas is increasing while the urban texture is gradually being ‘disemboweled’ for the improvement of the transportation system, which will lead, in the end, to nowhere” (Zenetos, 1973a, p. 112).

His intention to eliminate transportation is also evident in his provocative article entitled “The Metro Does Not Solve any Problem” in the 24 July 1973 issue of *Economy Postman*. In this article, Zenetos argued that “[t]he metro de facto alienates people from the urban environment and the complex processes of complementarity”. He also sustained that the metro “eliminates the development of social relations, a basic background of [...] [the] city”, claiming that it is considered to be “one of the causes of mental illness of the inhabitants of big cities” (1973, p. 24). Despite his insistence on the replacement of daily transpiration between residence and work place by a variety of teleoperations from home, he envisaged that “walking [would] [...] regain its old importance” (Zenetos, 1974, p. 123). A common point between Zenetos and Friedman’s approaches is the conviction that technological and social issues are interlinked. Friedman, in “A Trend in Architecture: Analysis and Prognosis”, published in *Architectural Design* in 1965, claimed that due to the technical and social transformations characterizing the situation “the historically established patterns (social organisation) have completely lost their efficiency” (1965, p. 52). As a solution towards the problems provoked because of the loss of significance of the old patterns, Friedman suggested the creation of “a new objective architecture [...], [aiming to] solve the relations implied by the patterns, e.g., the relation between social organisation and transportation” (p. 52).

TAKIS ZENETOS'S VISION OF SUSTAINABILITY AND CIRCULAR ECONOMY

Zenetos was interested in recycling materials and he believed in a circular economy. As part of his endeavour to envision living units as components of a larger project aiming to promote circular economy, he envisaged the existence of the so-called “Organisation for the Distribution of Consumer Goods” (ODCG), as well as the “Organisation for the Restitution of Raw Materials” (ORRM) (Zenetos, 1974, p. 123), and a “Laboratory for Composition and De-composition of Products” (p. 128). Indicative of his concern about eliminating waste is his remark that “[e]conomy in raw materials and energy and reduction of discarded matter (wastes) are now considered to be an integral part of any design process” (p. 126). His guiding principle was to eliminate waste. Another concern shared by Zenetos, Friedman and Archigram was the intention to create controllable climatic conditions. Characteristically, Friedman writes in “Spatial Urbanisme” (*Urbanisme spatial*), in *L'Architecture d'Aujourd'hui*: “An additional advantage is [...] the possibility of climate control of an entire neighborhood, including public spaces: streets, squares, passages, etc. This ‘climatisation’ supposes a coating: thin, elastic and transparent membrane, around the construction, as the first thermal barrier. The walls of the houses themselves will only be the second small dam” (1960).

TECHNOLOGICAL INNOVATION AS SOCIO-POLITICAL TRANSFORMATION

Zenetos's chief concern was to allow users to become the most creative possible, and this is reflected in the conditions he sought to create in his living units, on the one hand, and in his efforts to reconcile humans and technological advancements with nature, on the other hand. His flexible superstructures are characterized by an integration of nature in the built environment. In parallel, he understood technological innovation as a

means permitting socio-political changes. The specific question that arises today is whether the core ideas of Zenetos's aforementioned projects could be incorporated within the design of architectural and urban projects aiming to contribute to pandemic preparedness. Examining Zenetos's suggestions for comfortable, flexible and independent home-office conditions relying on advanced technological achievements may allow a better understanding of architecture's potential responses to the emergency conditions created by pandemic breakouts. Besides his interest in the broader aspects of urban planning, Zenetos paid particular attention to the complexity of the psychological and physiological needs of citizens within such conditions, as is evidenced by his 'posture chair' design. Zenetos related humans' self-esteem to their contribution to the preservation of the natural environment, their access to the infinite capacities of technology and the satisfaction they can receive through the arts and socialisation (1974, p. 125).

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