Kádár, Zoltán PhD

zoltaankadar@gmail.com
assistant professor (University of Szeged Faculty of Arts Department of Sociology)

The role of technology in early modern utopias

Abstract

Science and its by-product, modernization through technology, are perhaps the most powerful strands of the European spirit and culture. Technological advance is one of the most dominant motives of the utopian works from the dawn of the modern age. The theories of the 16th and 17th centuries, which in many respects can be traced back to Plato's State, were greatly aided by technological developments, including the advent of the printed book. Thus utopian ideas, the desire to improve society, and confidence in technological progress were mutually reinforcing each other.

Keywords

Early modern utopias, technology, Thomas More, Tommaso Campanella, Francis Bacon

DOI 10.14232/belv.2023.1.2
https://doi.org/10.14232/belv.2022.1.2

Cikkre való hivatkozás / How to cite this article:
Kádár, Zoltán (2023): The role of technology in early modern utopias. Belvedere Meridionale vol. 35. no. 1. pp 14–19.

ISSN 1419-0222 (print)
ISSN 2064-5929 (online, pdf)

The desire in man to dominate nature is particularly strong in Western civilization. This aspiration is already found in Christian thought, but only in the period of modernity it became an ideology, a principle that helped to legitimize the period of capitalism,[1] and from the 19th century onwards modern science and technology turned to be the sole means of achieving this supernatural domination. Even though there was already a chance of what could be interpreted as a technological revolution during the Roman Empire when engineering was at a very high stage of development, technology was not seen as in the modern age. The reason for this can be that the power source that could have realized it had not yet been invented to enable a radical transformation of the division of labor. The advent of steam energy was necessary to revolutionize the production of material goods and to enable the man of the age who regarded production as something that needed revolutionizing[2]. The fall of the Roman Empire was accompanied by a decline in the technological development of antiquity. The former metropolises were regressing into cities and production being dominated for centuries by rural, agricultural activities, which meant that the mechanical tools developed by the ancient peoples were little needed[3].

Utopian thinking did not find a breakthrough during these centuries until the early modern era, with the advent of geographical discoveries and thought experiments generated by the expansion of the known world. While Christianity gave Europeans an adequate explanation of the world and principles of life, the desire to create utopias did not become a definite demand. But from the moment religion ceased to be a sufficient consolation, the need had increased to create a more livable society, to change and outline the conditions they longed for. This need intensified during the Renaissance, but it was in the period of Enlightenment that it triumphed[4].

The emergence of modern utopia can be traced back to Thomas More's Utopia (1516). This work, and the utopias that followed it, found in the genre novel the most appropriate form to convey their ideas. The term utopia, as used by More, is a paradox: it denotes a place (the right place, the best place for the community) that is nowhere[5]. All societies in all historical periods have thought forms that testify to some golden age, paradise, or other ideal place or period. These places or periods have provided for a given community a state in which pain and the deprivations and problems of everyday life are eliminated and resolved. They are not utopias, however, at least not in the sense laid down by More, the modern creator of the genre.

Utopia presents a world beyond the depicted present, different in time and often geographically, in the image of a better or even perfect society, but it tries to remain within the range of possible solutions. It liberates the imagination, but also imposes limits because is not impossible, but rather unlikely: either human nature is not plastic enough, or there is little chance of changing the existing social order, institutions, and forms of government in a utopian direction. For utopians, it is obvious that what they dream of is not yet feasible in the present, but changes in science, technology, the structure of the state or morality may bring about the possibility of its realization. The dreamers of the fantastic and fairy-tale-like structures of utopian books were aware that only a later technological development could bring about their eventual realization.

1 Leiss 1975. 194.

2 Sibley 1973. 7.

3 Headrick 2009. 54–56.

4 Cioran 1987. 90.

5 Kumar 2003. 64.

The same is true of the prediction of world governments or world leaders since they had to take into account that only a certain economic development and a world trading community that did not exist in their time would enable the members of these imaginary elites to exercise their power. The authors of the utopias were also aware that the results of medicine or eugenics would be achieved in a more advanced scientific environment[6].

The classical conception of utopia, going back to Plato, is a static construction; the rationally worked out foundations of the perfect state are eternal, made into indisputable rules for society by the leadership chosen throughout the history of the utopia. In the utopias, the philosopher-architects of the Platonic conception of the state return: we find them in various forms in the works of More, Campanella, and even H.G. Wells[7].

Another feature of utopias is their prophetic quality most reminiscent of the Book of Revelation, which indicates that the desired states of affairs expressed in the given book will or may occur in some future historical unfolding. This is characteristic of socialist utopianism, as both evolutionary doctrines and Marxism provided the scientific basis for the idea that conditions, as they are in the present, must necessarily change. According to this view, the progress of science, class antagonisms, and other social tensions will push human development in the direction the authors wish to see[8]. According to Emile Cioran, utopia is social alchemy: whereas alchemy tries to impose the impossible on the physical world, utopia tries to implant in human existence a mixture totally alien to human nature, to the nature of socialization[8].

At the dawn of the new age, More takes stock of the negative topicalities, political problems, and social concerns of his time, and creates his work Utopiain this light. In 16th century England, the rise of capitalism and agricultural development renders the work of the masses of peasants accustomed to a primitive way of life unnecessary, turning a large part of the former pillars of society into penniless vagabonds, thieves, and refugees from starvation into criminals. The land where the local peasants had made their living was soon grazed by sheep that were profitable only to a few people, and because of that masses of proletarians flooded the cities. More contrasts the ever-changing legal order of Europe, its periods of peace and war, and the exploitation of the majority of the people, with the stability of Utopia, its well-organized communistic order.

More sketches a patriarchal social model, partly inspired by the works of Plato and partly by medieval communist doctrines, in which an ideal society with a clear past and a foreseeable future is characterized by stable morality, permanent physical products, and social institutions, based on a logically structured system. Technology does not represent the creation, perfection, and multiplication of material goods, but the guarantee of social equality. In the moderate society of Utopia, the working day is only six hours long, with both sexes working equally in the fields and commerce, without an economy based on money, eliminating superfluous occupations and work processes[9]. More does not show the abundance of technological creations in his novel, although the reader can meet the expertise of utopians in the field of military and

[6] Kumar 2003. 66

[7] Kumar 2003. 66

[8] Cioran 1987. 93.

[9] Sibley 1973. 8.

secret war machines[10], more important is how much the author speaks about the reasonable or science-based everyday of the imaginary country.

Utopia's social structure is extremely reasonable (even the fact it is an island is no coincidence, the founders separated the peninsula from the mainland for the aim of defense), the cities are comfortable, roughly equidistant from each other, and identical in institutions, customs, and language, moreover similar in layout. The population can easily obtain its needs through smoothly functioning redistribution. Thanks to general satisfaction, the most popular leisure activity is learning, which is partly vocational training and partly autodidactic activity. In almost every field (institutions, disciplines, etc.), the Utopians boast the achievements of the European sages, but there is only a limited record of scholastic nit-picking - hence the absence of complicated legal matters and unenforceable laws.

Campanella's The City of the Sun (1602), like the cities of More's Utopia, was built as rationally as possible, and also on an island. The leader of the city is the high priest prince called the Sun, and below him are the sub-princes of Power, Wisdom, and Love, who are in charge of the affairs of war, science, and succession. They pay a lot of attention, that the citizens breed only in the proper way[11]. This selection is a principle adopted by Campanella to improve and maintain the physical and mental quality of the population of his imaginary nation[12].

The inhabitants of the City of the Sun are polymaths, men and women alike, skilled in all the trades, as they receive a high level of physical and mental education from three years of age, they get to know all the processes of work, and also they encounter at every turn with painted scientific pictures about the plants and the animals on the walls of the city, thus the emphasis in education is on the natural sciences. The working day is only four hours long, thanks to technological innovations that harness the power of water or wind. On the one hand, Campanella considers it important to talk about technological achievements, and on the other hand, he also shows the technological development of his time. His conception of nobility is revolutionary since nobility is not a function of birthright or virtue, but of practice skills to the degree that can raise one to the status of nobility in this utopian world.[13]

The necessity of acquiring technological knowledge is often mentioned in the book, which is strange because even in contemporary literature about the versatility of man, such a persistent propagation of this kind of knowledge is rare.[14] Campanella draws a sharp distinction between the concepts of science and technology: science is knowledge of the natural environment, while technology is control over the world around us.[15] The novel reports on several technological innovations: it treats the art of flight as a solved fact, mentions an imminent invention that will make it possible to observe hidden stars, and includes a device that will allow listening to the music of the spheres. The Sun City's creativity manifests itself in watercraft that can travel without oars or sails using amazing powers.[16] The technological innovations scattered throughout the book show how keen Campanella was on these inventions.

[10] More 2016. 96.

[11] Campanella 1901. 281.

[12] Sibley 1973. 10.

[13] Hall 1993. 617.

[14] Hall 1993. 619.

[15] Hall 1993. 619.

[16] Campanella 1901. 304.

In the works of More and Campanella, knowledge and the scientific design that permeates society is very important, but in Bacon's New Atlantis (1627) this approach is even more pronounced. The individual, the basis of the bourgeois value system, emerges alone, with civilization establishing an economy that is not nourished by nature itself but by the creations of the individual (business, enterprise, technological invention).

Bacon thought that knowledge was a form of power, realized that understanding the laws of nature offered the possibility of humanizing nature, and subordinated his entire work to this idea. It is therefore not surprising that this is the central message of his utopian work. The New Atlantis is more a sketch of a successful scientific research center than a description of some remote land of social justice or a rational and hence perfect state. In Bacon's thinking, the world belongs to those who, with knowledge, can conquer its various segments and prosper in the long term in the territory they have acquired. The exemplary cooperation of scientists in the state is an intellectual community in which the interests of individuals are subordinated to a great common goal, which can be understood as an extension of the Empire of Man[17]. The scholars of the House of Solomon operate in a similar way to the scientific community of today: they hold conferences and publish their findings (if they are not secret)[18].

Bacon's imaginary state, Bensalem, is also an island, and in this respect, the book continues the tradition of the utopias mentioned above, but this writing is also very different from them since the community depicted here is a monarchy, with the presence of private property and the class differences that go with it. The inhabitants do not live according to the puritanism of utopias but instead live in a state of splendor and luxury.

Bensalem is a reclusive country driven by scientific thinking and the need to implement technological innovations. It makes every effort to explore and acquire knowledge from other countries, and as a result, its spies are constantly traveling the world. The island's central edifice is the scientific complex known as the House of Solomon, where scientists, well paid by the state, carry out their sublime work in seclusion from the masses, and use their achievements to enhance the power of their country and, in general, to help the whole human race to pursue its material needs through science[19].

This unfinished work of Bacon shows the boundless power of the human mind and despite its utopian nature, it is one of the great works in the history of science. Here we can see the praise of complex technology, thus The New Atlantis is the first of a series of modern utopias, in which science is seen as the benefactor of humanity, and the depository of social progress. Bacon's work with its refrigerated caves, submarines, bird-like flying people, weather stations, and the successes of medicine, clearly illustrates the importance of man's understanding and purposeful use of nature.

[17] Borlik 2008. 235.

[18] Bacon 1901. 271.

[19] Dinello 2005. 33.

References

Bacon, Francis (1901): The New Atlantis. In *Famous Utopias*. New York, Tudor Publishing Co. 235–274.

Borlik, Todd Andrew (2008): The Whale under the Microscope: Technology and Objectivity in Two Renaissance Utopias. In Claus Zittel, et al. (ed.): *Philosophies of Technology: Francis Bacon and his contemporaries*. Leiden, Brill. 231–249.

Campanella, Tommaso (1901): The City of the Sun. In *Famous Utopias*. New York, Tudor Publishing Co. 275–317.

Cioran, E. M. (1987): Mechanism of Utopia. *Grand Street* Vol. 6. No. 3. 83–97. https://doi.org/10.2307/25006990

Dinello, Daniel (2005): *Technophobia*. Austin, University of Texas Press.

Hall, Phyllis A. (1993): The Appreciation of Technology in Campanella's "The City of the Sun". *Technology and Culture* Vol. 34. No. 3. 613–628. https://doi.org/10.2307/3106706

Headrick, Daniel R. (2009): *Technology: A World History*. Oxford University Press.

Kumar, Krishan (2003): Aspects of the Western Utopian Tradition. *History of the Human Sciences* Vol. 16. No. 1. 63–77. https://doi.org/10.1177/0952695103016001006

Leiss, William (1975): Ideology and Science. *Social Studies of Science* Vol. 5. No. 2. 193–201.

More, Thomas (2016): *Utopia*. Cambridge University Press.

Sibley, Mulford Q. (1973): Utopian Thought and Technology. *American Journal of Political Science* Vol. 17. No. 2. 7. 255–281. https://doi.org/10.2307/2110520