Introduction

Open Architecture and its Discontents

Jorge Mejía Hernández and Esin Komez Daglioglu, editors

> Utopia will persist – but should persist as possible social metaphor rather than probable social prescription
>
> Colin Rowe, 'The Architecture of Utopia'[1]

Openness as a mainstream architecture theory

Tacitly or manifestly, the qualities that characterise open works of art have become prevalent in mainstream architecture theory. Popular professional media constantly reproduce the latest incomplete, incremental, principle-based architectures which can change in size and shape and adapt to shifting conditions.[2] For many of us it now seems completely normal to move into unfinished houses or flats, work in so-called flex-space offices, shop in partially completed depots, and store our belongings on self-built modular shelves. Architects concurrently praise informal, makeshift architectures, and admire colleagues who leave prominent parts of their work pending.[3] Despite the sustainability craze, aiming for complete, durable buildings does not seem too fashionable these days.

As conjectured some sixty years ago by a number of intellectuals and artists from different disciplines, it would seem that openness is a successful architectural theory.[4] On the one hand it appears to have more and better explanatory power (and is therefore able to make more convincing truth claims) than other theories, such as those that argued for univocal relations between a building's configuration and its use. On the other hand, the ambiguity, indeterminacy, and vagueness that are often attributed to open architecture seem to be in tune with broader cultural theories that are currently in vogue. But is this really the case?

The notion that art should be prone to external influence and change is not new, of course. Open works have a long and diverse tradition that has remained latent for several millennia already, with notable antecedents like the venerable *I-Ching*: an authorless book that can be read in different orders and mean many things.[5] Our current academic understanding of openness, however, can be traced back to Heinrich Wölfflin's 1915 *Principles of Art History*, which explains baroque art as a series of open configurational systems, different from the finite and static, and therefore closed forms of Renaissance art.[6] This explanation was further developed in Umberto Eco's 1962 definition of 'the open work' in his book of the same title: a study of the semiotic implications of works of art conceived on the basis of incompleteness and heteronomy.[7]

Simultaneous with Eco's publication, the aim for incompleteness, adaptivity, and heteronomy in construction and design also appeared in post-war and postmodernist architecture, as open configurations meant to achieve flexible and adaptable built environments. In the early 1960s, for instance, Oskar and Zofia Hansen together with other self-proclaimed structuralists designed open modular building systems; Jaap Bakema tried to understand buildings and cities in relation to Henri Bergson and Karl Popper's definition of an open society; and Colin St. John Wilson split modernist architecture into an open organicism and a closed abstract rationalism.[8] Recently, Richard Sennett's article 'The

Open City' has suggested a different interpretation of openness, in order to describe possible futures for a city that, in stark opposition to the over-determination of conventional master plans, should be able to accommodate and foster diversity, adaptability, liveliness and unpredictability.[9] With the advancement of digitalisation, participatory design has evolved into 'open-source architecture' – a notion used by Carlo Ratti and Matthew Claudel in their eponymous book to explain how architects determine and share frameworks and parameters with the public through digital networks, moving ever closer to a radically collective design.[10]

Open architecture's four trajectories

All these examples point to four different yet interrelated understandings of what an open architecture is, where and when it can be situated, what it can do, and what it usually rejects. Together, they suggest that architecture can be open in structural, performative, procedural, and conceptual terms. On these grounds the following research and review articles study past, present, and future open architectures critically and creatively by defining their utility and value (or the lack thereof), explaining the methodological advantages and disadvantages of their use, and justifying alternative conceptualisations of the notion of openness.

Predominantly, this notion has been associated with the in- or under-determination of buildings' shapes and sizes, taken for structural conditions upon which different human actions are expected to take place. Key to these structural conditions is the technology required to build – a topic explored by Ezgi İşbilen in 'The Unbearable Lightness of an Open System'. In her article, İşbilen explores the notion of openness in architecture through the Packaged House project designed by Konrad Wachsmann and Walter Gropius: a prefabricated housing system triggered by pressing housing shortages in the United States after the Second World War. 'Although it was cultivated in the most favourable political and economic landscape for prefabricated building systems,' the author notes, the Packaged House failed to be widely reproduced. The reasons for the endeavour's rise and fall are revealing.

Moving from building technology to the analysis of architectural configuration, Xavier van Rooyen's article 'Free Plan versus Free Rooms' traces architecture's continuous shift towards indeterminacy. Concretely, van Rooyen examines the different ways in which the design processes carried out by four well-known architecture offices (Office KGDVS, MVRDV, Sanaa, and Sou Fujimoto) transcend and transform earlier notions of openness in order to respond to a crucial desire of contemporary society: the need for singularity. While modernist and postmodernist architectures relied on hypostyle layouts (post-and-beam compositions habitually referred to as free or open plans), the author argues that these and other contemporary architects are finding new and exciting forms of openness using the room as elemental unit of architecture.

Aside from structure, openness in architecture is also associated with the performance of collectiveness, flexibility, adaptability, multiplicity, plurality, heteronomy, collaboration, and participation. Transcending commonplace readings of architectural performance as mere function, Armando Rabaça's article '*Spolia* and the Open Work' explores the different ways in which architecture can incorporate historical remnants as sources of new meaning. He notes that the aim is to analyse the association between the creative reuse of and intervention in historical remnants and the multiplication of possible signification' by evaluating the role and nature of *spolia* through 'the structural linguistics upon which Umberto Eco built the post-structuralist concept of open work.

While Rabaça's text examines how to incorporate remnants of the past, Nina Stener Jørgensen and Guillaume Laplante-Anfossi approach openness in relation to new computer technologies in their article 'Closing the Open System', where they examine the algorithm written by Franco-Hungarian

spatial artist Nicolas Schöffer for the Tour Lumière Cybernétique, a cybernetic light tower created for Paris's La Défense district in the 1960s and '70s. The tower's responsiveness to a myriad of external stimuli, we are told, can be understood through the sophisticated computer programme it utilised to (hypothetically) achieve a truly extraordinary performance, which nonetheless failed to avoid stagnation, repetition, and predictability.

While the articles mentioned so far deal with architecture as structure and performance, other approaches to open architecture focus on the role and agency of the architect in society, shifting attention from buildings to the practice of the architectural profession. Here the architect's authorship is contested, and replaced by a flexible, mediating role as negotiator of different interests, often with a user-centred approach.

Such is Esra Akcan's take in 'Writing *Open Architecture* as a book on Human Rights (and against Nation-States)', where she elaborates on some of the fundamental premises developed in her book *Open Architecture*.[11] Specifically, Akcan defines open architecture as a new ethic of welcoming' noncitizens and refugees which determines the architect's work, and guides it towards 'flexibility and adaptability of form, collectivity and collaboration, participatory processes, and multiplicity of meaning. Thus, openness becomes a political action in architecture aimed at expanding 'migrants' rights and social citizenship.

Using elements from Akcan's research, Ecem Sarıçayır's article 'Architect of Nothingness' discusses the work of Dutch architect Frank van Klingeren, with particular focus on his projects for two community centres – De Meerpaal and Het Karregat – built in the Netherlands, also in the 1960s and '70s. To make sense of these two pieces of deliberately unfinished architecture, Sarıçayır takes a close look at the different media used by Van Klingeren to communicate, including some of his poems and essays, but also the interviews he gave to national and international journals and newspapers regarding his designs for these community centres.

While Akcan's entangled historiography meanders between the individual dwelling, the neighbourhood, and across inter-national frontiers, Başak Uçar and Pelin Yoncacı Arslan focus on the instruments that allow us to appraise the larger scales of the environment in their article 'The Open Map'. Based on four examples (namely, Jasper Johns's paintings, Buckminster Fuller's Dymaxion Map and World Game, and MIT's Real Time Rome project), the authors claim that new developments in computer science and information technologies have turned maps into grittier models that define the new granular front of the open map.

Returning to more conventional forms of architectural design, Alberto Geuna and Claudia Mainardi's article 'Contextualising *Liberté d'Usage*' describes the work of Pritzker Prize laureates Anne Lacaton and Jean-Philippe Vassal as influenced by earlier research carried out by their professor and mentor, 'the largely forgotten' figure of Jacques Hondelatte. For the authors, Hondelatte's investigations of openness, especially concerning buildings' performance for enabling alternative uses, explains how Lacaton and Vassal have achieved some of the most powerful qualities of their celebrated work.

Finally, and besides the abovementioned structural, performative, and procedural connotations, the notion of openness has also been strongly associated with a particular form of conceptualising the architectural discipline and its outcomes. In this direction, 'On the Open Style of Architectural Reasoning' by Konstantinos Apostolidis ponders architectural epistemology and methodology through the work of the philosophers of science Ian Hacking and Imre Lakatos. In order to bring their ideas to the field of architecture, Apostolidis compares and contrasts earlier attempts in the same direction by Stanford Anderson and Michael Hays as a basis for an open style of architectural reasoning.

Pushing disciplinary boundaries even further, the article 'Ventotene and Gorizia' by Sebastiano

Fabbrini presents us with a provocative study of two Italian panoptical buildings that straddle the border between different places and times: the prison of Ventotene and the hospital of Gorizia. Like the wings of these panopticons, Fabbrini's account branches out into a series of philosophical, morphological, and ultimately political reflections that exemplify how even the most stable architectural objects can proliferate and open our minds to new and better understandings of reality.

Openness as an effective architectural theory

The sheer diversity of these approaches, ranging from pleas for the dissolution of nation states to the study of algorithms, or from modular construction systems to the ideological foundations of the European Union, reveals the remarkable breadth of the concept we set out to study. A sense of elusiveness remains attached to anything termed open in architecture. Throughout this editorial process we have constantly found ourselves listing several different and often contradictory conditions, in the hope that they somehow – one could even say magically – add up and make sense of what we are trying to grasp.

Trying to elucidate why openness appears to mean so many different things and at the same time remains an ethereal concept, it seems worthwhile to reflect on potential justifications for its use. In the English language, the word *open* (like the German *offen* used by Wölfflin) comes from the Indo-European root *upo*, which refers to something that is raised or brought up from under. The Italian *aperto* used by Eco, on the other hand, comes from the Latin *apertus*: without obstacle.

While the resulting modern words have remained fundamentally unaltered for centuries, beyond their original meanings their use has in many cases become metaphorical. The straightforward actions of revealing and unfettering (as in an 'open conversation', 'opening a door', and so on) are still and unequivocally understood as opening in the Saxon, Germanic, and Romance languages. However, when these words are used to describe complex objects and processes which can't be explained quite so simply, openness turns allusive. It is in this metaphorical role that in the course of the past sixty years the notion of openness in architecture has been notably effective. Nonetheless, it appears to us now that the term's popularity does not equate to its efficiency.

Given the positive moral connotations attributed to any act of revealing, disclosing, freeing, or liberating, describing certain architectures as open has two obvious benefits. For one thing, it has been used as an extremely effective euphemism, able to make certain unpopular innovations more palatable. An open flat seems much more desirable than an unfinished apartment, for example. Even though some of the most challenging innovations introduced by modernist and postmodernist architecture have become mainstream, the term has remained an effective instrument of architectural axiology. Almost automatically, openness continues to ascribe positive values and virtues to architects and their work.

Unfortunately, these positive values and virtues do not always correspond to the architecture they are attributed to. Proneness to multiple forces and change are not necessarily desirable architectural qualities. Flexible, incomplete, or un-authored buildings are not always able to support humane goals and fend off societal evils, as some of our contributors seem to believe. The indeterminacy and ambiguity that characterise some architectures described as open have evidently led to undesirable outcomes. Even if fundamentally open in a diversity of ways, the most aggressive forms of the contemporary slum, the normalising nature of do-it-yourself architectures, and the transience of many participatory commoning practices exemplify the potential setbacks of this idea.

This might be because, at a purely technical level, 'open' remains an elemental word, bound to a very concrete meaning, and therefore unable to account for the complexities that characterise

realities beyond that concrete meaning – architecture included. Past metaphor, the inefficiency of the word becomes evident when additional terms have to be scrambled ad-hoc to further clarify what openness is or does.[12]

On these grounds we can conclude that if a theory of architecture must explain what architecture is, define the principles on which its practice is based, and justify a course of action for its future development, openness in architecture can be effectively and persuasively used to discuss the ethics that should govern our profession. Beyond that concrete, axiological role, its meagre explanatory power suggests that new directions in open architecture might require that we recognise its theoretical shortcomings – its possible obsolescence, even – and start looking for new and better ways to explain exactly what we're talking about when we talk about the architecture of our time (and hopefully also of the time to come). In the meantime, and paraphrasing Colin Rowe, we trust that openness in architecture will persist as metaphor, rather than as prescription.[13]

Notes

1. Colin Rowe, 'The Architecture of Utopia', in *The Mathematics of the Ideal Villa and Other Essays*, ed. Colin Rowe (Cambridge, MA: MIT Press, 1976), 216.
2. Dima Stouhi, 'Incomplete Structures Take the Spotlight in Photographic Series', 10 November 2019, https://www.archdaily.com/927806/incomplete-structures-take-the-spotlight-in-photographic-series; Delia Bayona, 'Architects Propose 120 Incremental Social Houses for Iquitos, Peru', 23 March 2018, https://www.archdaily.com/889897/architects-propose-120-incremental-social-houses-for-iquitos-peru; David Basulto, 'Incremental Housing Strategy in India / Filipe Balestra & Sara Göransson', 8 May 2009, https://www.archdaily.com/21465/incremental-housing-strategy-in-india-filipe-balestra-sara-goransson; Kaley Overstreet, 'Is There a Future for Open Source Architecture?', 9 June 2022, https://www.archdaily.com/983160/is-there-a-future-for-open-source-architecture; Danae Santibañez, 'Incomplete House / estudio relativo', 7 July 2018, https://www.archdaily.com/897012/incomplete-house-estudio-relativo; Joseph Kennedy, '"Permanently Unfinished": The Evolution of Architecture in the Galapagos Islands', 11 January 2017, https://www.archdaily.com/802383/permanently-unfinished-the-evolution-of-architecture-in-the-galapagos-islands.
3. The 2016 and 2021 Pritzker prizes granted to Alejandro Aravena from the practice Elemental, and Lacaton and Vassal, exemplify this recognition.
4. See notes 7 and 8 below.
5. *I-Ching or Book of Changes,* trans. Richard Wilhelm and Cary F. Baynes (New York and London: Penguin, 1989).
6. Heinrich Wölfflin, *Principles of Art History: The Problem of the Development of Style in Later Art*, trans. M. D. Hottinger (New York: Dover Publications, 1950).
7. Umberto Eco, *The Open Work*, trans. Ana Cancogni (Cambridge, MA: Harvard University Press, 1989).
8. Oskar and Zofia Hansen, 'The Open Form in Architecture – the Art of the Great Number', in *CIAM '59 in Otterlo,* ed. Oscar Newman (Stuttgart: Karl

Krämer, 1961), 190–92; Dirk van den Heuvel, ed., *Jaap Bakema and the Open Society* (Amsterdam: Archis, 2018); Colin St. John Wilson, 'Open and Closed', *Perspecta* 7 (1961): 97–102.

9. Richard Sennett, 'The Open City', *Lotus International* 168 (January 2019): 117–29.
10. Carlo Ratti and Matthew Claudel, *Open Source Architecture* (London: Thames and Hudson, 2015).
11. Esra Akcan, *Open Architecture: Migration, Citizenship and the Urban Renewal of Berlin-Kreuzberg by IBA-1984/87* (Basel: Birkhäuser – de Gruyter Academic Press, 2018).
12. For yet another interesting form of open architecture see Charles Jencks and Nathan Silver, *Adhocism: The Case for Improvisation* (Cambridge, MA and London: MIT Press, 2013).
13. Rowe, 'The Architecture of Utopia', 216.

Biography

Jorge Mejía Hernández graduated as an architect in Colombia, and received a PhD from TU Delft, where he teaches design studios and researches with the section Methods and Matter. He is a member of the Delft/ Rotterdam-based research group Architecture Culture and Modernity, where he supervises PhD candidates from the program Architecture and Democracy, and acts as science communications coordinator for the EU-funded COST action *Writing Urban Places: New Narratives of the European City*.

Esin Komez Daglioglu is assistant professor at Middle East Technical University (METU), Department of Architecture. She received her bachelor and master of architecture degrees magna cum laude from METU where she also worked as a research and teaching assistant from 2008 to 2012. She worked as a PhD researcher, design tutor and lecturer at the Architecture Department of Delft University of Technology (TU Delft) between 2012 and 2017. Among others, she has published in *the Architectural Theory Review, METU JFA* and *OASE*. Her research areas include postwar and postmodern architectural history, theory and pedagogy, contemporary architectural and urban discourse, and design studio education.