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Komez-Daglioglu, Esin

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KARL POPPER'S ARCHITECTURAL LEGACY: AN INTERTEXTUAL READING OF *COLLAGE CITY* (1)

Esin KÖMEZ DAĞLIOĞLU*

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1. An initial version of this paper was previously presented at International Architecture Philosophy Conference titled "Autonomy Reconsidered: Ethics in Architecture, Urbanism and Landscape" organized by The International Society for the Philosophy of Architecture, 9-11 July 2014, Delft, the Netherlands.

2. The impact of the philosophy of science on architectural research is most apparent in the 1970s when schools of architecture started to offer PhD programs. Therefore, it is not surprising that Stanford Anderson, the director of MIT's PhD program in History, Theory and Criticism of Architecture, Art and Urban Form from its founding in 1974 to 1991, was one of the forerunners in incorporating the debates in philosophy of science into architecture by adopting Imre Lakatos' theory of "research programs." (Anderson, 1984)

INTRODUCTION

Karl Popper, the Austrian born British philosopher, was one of the most inspiring and controversial thinkers of the 20th century and also a disputed one as a Western cold-war ideologist. His major contribution was in the realm of philosophy of science, where he proposed falsification as a method to develop and test scientific knowledge as opposed to induction. Founding the Department of Philosophy, Logic and Scientific Method at London School of Economics (LSE) in 1946 and influencing many philosophers working on scientific knowledge and method, specifically Imre Lakatos and Paul Feyerabend, Karl Popper is regarded as one of the most influential philosophers of science in the 20th century (Horgan, 1992; Kiesewetter, 1995; Hachohen, 2002). On the other hand, Popper's image is rather controversial in the realm of political philosophy. A supporter of Marxist ideology and a member of Social Democratic Workers' Party of Austria in his youth, Popper later became one of the fiercest critics of the utopian aspects of Marxism. His defense of liberal democracy as a condition of open society has been considered by many scholars and critics as a foundation for conservative politics (Freeman, 1975; Parvin, 2013).

Since architecture is syncretic by nature, it has always been influenced by the developments and debates in philosophy. However, the impacts of the philosophy of science on architecture were not apparent until the 1970s, when research became a scope of scholarly investigation at the schools of architecture (2). In fact, Popper's method of the development of scientific knowledge as expressed in his *The Logic of Scientific Discovery* (originally published in German in 1934 with the title *Logik der Forschung* and translated into English in 1959) and *Conjectures and Refutations* (1963) is one of the first references adapted in an architectural design studio in the 1960s by architectural critic, theoretician, and teacher, Colin Rowe. Since then, various scholars have written about the relevance of Popper's scientific method on architectural research and design education (Downton, 2003;

* Department of Architecture, Delft University of Technology, Delft, The NETHERLANDS

Brawne, 1995; Hillier et al., 1972). On the other hand, Popper's debate on politics and society as mainly developed in his *The Poverty of Historicism* (first read in a private meeting in 1936, then published as a journal article in 1944, and finally published as a book in 1957) and *Open Society and Its Enemies* (1945) have hardly received any attention from architects and architectural theorists. Although the discipline of architecture is much more involved with social and political philosophy, Popper was completely ignored in this realm, with one dramatic exception: *Collage City*.

***Collage City* as a "Radical Middle" Theory and Design Model**

Collage City, written by Colin Rowe and Fred Koetter, was published first as an article in 1975 and later as a book in 1978. The arguments in *Collage City* was mainly developed in educator and theorist Rowe's Cornell Urban Design Studio between the early 1960s and the 1980s, during the period when the city became the object of architecture visible in publications such as Koolhaas' *Delirious New York* (1978); Venturi, Scott Brown and Izenour's *Learning from Las Vegas* (1972); Banham's *Los Angeles: The Architecture of Four Ecologies* (1971); Boyarsky's "Chicago a la Carte" (1970); Rossi's *The Architecture of the City* (1966); Lynch's *The Image of the City* (1960). However, Rowe and Koetter's *Collage City* argument differs from the others by providing a thorough critique on the failure of modernist city planning and its ill effects on the traditional city and by proposing a new urban design model mediating between the scale of a building and city planning.

According to Rowe and Koetter, modernist cities were characterized as "the city in the park" with an emphasis on totalistic design of object-like freestanding buildings located in vast open spaces. This model was criticized for not having the qualities of urban texture and density of traditional cities, which was "the city of defined voids", characterized by incremental design of successive open and public spaces. Therefore, *Collage City*, composed of the collage of different architectural types and elements from different periods, was proposed as a new model for urban design, as a "radical middle" that accommodates both "the ideal" and "the real", "utopia" and "tradition", "theatre of prophecy" and "theatres of memory", "modern city" and "traditional city", "general statement" and "specific", "archetype" and "accident", and "overtly planned" and "the genuinely unplanned" (Rowe and Koetter, 1978). The book is usually regarded as one of the most profound examples of postmodern architectural and urban design theory due to its sound criticism of orthodox modern architecture and planning, its reference to traditional and historical archetypes, and its design model recalling eclecticism. Thinking and discussing about *Collage City* is relevant today as remnants of its urban design theory and methodology are still prevalent in practice and in academia.

Translating Philosophy into Architecture

Karl Popper became a very instrumental figure for Colin Rowe and Fred Koetter in *Collage City* to ground their criticism of the utopian and totalitarian character of orthodox modern architecture, to rejuvenate the significance and relevance of traditional cities, and to develop a "scientific" urban design methodology. In fact, Rowe was familiar with Popper's ideas since the early years of his career. Rowe studied at Warburg during 1945-46 under the instructor Rudolf Wittkower, who introduced him to German-speaking intellectuals including Ernst Gombrich and Karl Popper. Gombrich, a life-long friend of Popper, was also a research fellow and lecturer during that period in Warburg. He helped Popper, who was an

3. Ernst H. Gombrich, in his article titled "Personal Recollections of the Publication of the *Open Society*," wrote about his relation with Popper and the story of the publication of the book *Open Society and Its Enemies*, in which the article was published.

exile in New Zealand then, in publishing his *Open Society and Its Enemies*, in establishing the contacts at LSE, and subsequently moving to England (3). Although Rowe was acquainted with Popper's philosophical thoughts from Warburg, he did not refer to him directly in his early writings. During the late 1940s and in the 1950s, Rowe was publishing unconventional readings on the works of grand modern architects by inventing an alternative history situating modern architecture in mannerist and classical tradition (e.g., "The Mathematics of the Ideal Villa", "Mannerism and Modern Architecture", "Neo-'Classicism' and Modern Architecture"). Popper became influential for Rowe later in the 1960s and 1970s first with his scientific model explaining the development of knowledge and later with his criticism of utopia and exaltation of tradition against.

Teaching at the Liverpool School of Architecture, University of Texas at Austin, and Cambridge University in the 1950s, Rowe finally settled at Cornell University, where he taught from 1962 until his retirement in 1990. In these Cornell years, Rowe's interest shifted to urban form and urban design education. It was in Rowe's early years at Cornell that Popper's ideas started to flow over his studio when *Conjectures and Refutations* was published in 1963. Therefore, Popper was influential for Rowe to develop a teaching method where students' design proposals are approached like scientific knowledge, as conjectures awaiting refutations. This was quite different from the design studios at that time, by beginning and grounding a design not on analysis but on hypothesis. By hypothesis, Rowe meant vocabulary of design language, a catalogue of forms. At a meeting at Cornell University held in winter 1963-64 to discuss "the teaching of design in new architectural curriculum," Rowe defined the aims of academy as follows:

- I. To equip the student with skills necessary for the practice of his profession.
- II. To enable him to develop his powers of selection by the process of his own judgment, and to develop and ultimately teach the SCIENCE of architecture. Here I mean science as Alberti or Palladio used the term. (Rowe, 1963/64, 27)

Hence, Popper was instrumental for Rowe to develop a method to teach the "science of architecture." However, Popper's influence was not limited to method. His social and political philosophy affected Colin Rowe's evaluation of modernist planning, which constituted the underlying content of the *Collage City*. In this regard, Rowe needed Popper as a foundation to construct his philosophical, theoretical, and intellectual attack on modern and post-war planning.

LEGACY OF POPPER ON *COLLAGE CITY*

Although Rowe himself made direct references to Popper in *Collage City*, the impact of Popper's philosophy on Rowe has been overlooked. In fact, there is an extensive literature on *Collage City*, the urban architectural theory of Colin Rowe, and his pedagogical approach. Rowe's urban architectural theory was first shared and disseminated by his students through publications such as *Contextualism: Urban Ideals and Deformations* by Tom Schumacher (1971), *Physical Context/Cultural Context: Including it All* by Stuart Cohen (1974), *Type and Context in Urbanism: Colin Rowe's Contextualism* by William Ellis (1979), *Conjectures on Urban Form* by Steven Hurtt (1983). In these publications, the emphasis was mainly on physical

compositional design strategies as developed in Rowe's Cornell studio teachings. The evolution of Rowe's ideas and theories were later central to the articles published by scholars such as George Baird (*Oppositions in the Thought of Colin Rowe* - 1997) and Joan Ockman (*Form without Utopia: Contextualizing Colin Rowe* - 1998). Rowe is still topical in the field of architecture since the past two years have witnessed an increased emphasis on the life and works of Colin Rowe, with the "Urban Design and the Legacy of Colin Rowe" conference held in Rome in 2014, Emmanuel Petit's recently published book *Reckoning with Colin Rowe: Ten Architects Take Position* and Daniel Naegele's forthcoming book *The Letters of Colin Rowe: Five Decades of Correspondence*.

Despite this expanding literature on *Collage City* and Colin Rowe, there is a surprising absence of research that examines the influence of Karl Popper's ideas on Rowe's approach to urban architectural design. Thematizing this gap, this paper aims to provide an in-depth comparative reading of *Collage City* and the seminal publications of Karl Popper to trace back his legacy on theories and ideas of Colin Rowe. I argue that Rowe's urban architectural theories and design strategies as expressed in *Collage City* and its origins at the Cornell urban design studio pedagogy can only be truly grasped through this intertextual reading. By providing a Popperian reading of *Collage City*, my overall intention is to highlight the overlooked dimensions of this still prevalent urban design methodology. In order to achieve this, the article will first introduce Popper's key concepts of "historicism", "utopia", and "tradition" and the way they are reflected in *Collage City*. Then Rowe and Popper's discussion on the "problem of whole" and the use of Gestalt psychology will be introduced as an operational tool, a link, between theory and design, philosophy and architecture. Finally the architectural reflection of the whole debate will be further elaborated by analyzing Rowe's theory of "composite building" and the use of collage as a design strategy.

Historicism

One of Popper's first significant publications was *The Poverty of Historicism*, the title alluding to Marx's book *The Poverty of Philosophy*, which in turn was referring to Proudhon's *Philosophy of Poverty*. Historicism was a key notion for Popper to establish his critique on totalitarian and utopian political approaches. *The Cambridge Dictionary of Philosophy* defines historicism as a methodological and epistemological doctrine that alters the positivist approach searching for natural laws in the human sciences by emphasizing the role of historical occurrences (Audi, 1995, 331). However, there is no single, definite, and unitary definition of historicism since its appearance in the 17th century (4). Popper's approach distinguished itself by defining historicism as a method used in the social sciences. Popper (2002a, 3) harshly criticized historicism as a "poor method," "an approach to the social sciences which assumes that *historical prediction* is their principal aim, and which assumes that this aim is attainable by discovering the rhythms or the patterns, the laws or the trends that underlie the evolution of history." Defining historicism as a method, he criticized it for replacing "natural laws" with "historical laws", which according to him was not a profound method for understanding, explaining, and developing scientific knowledge.

Historicism is also a highly charged term in architecture. However, its interpretation in philosophy and architecture has been quite different. In this context, architectural historian, critic and teacher Alan Colquhoun's

4. For a general overview of historicism in philosophy and its distinct uses from Giambattista Vico to Hilary Putnam, see: (Reynolds, 1999).

essay *Three Kinds of Historicism* is a seminal article in identifying and defining different understandings of historicism covering its architectural interpretations. According to Colquhoun (1983, 86), there are three major conceptualizations of historicism: "(1) the theory that all sociocultural phenomena are historically determined and that all truths are relative; (2) a concern for the institutions and traditions of the past; (3) the use of historical forms (e.g. in architecture)." Although Colquhoun did not mention Popper in his paper, it is clear from the definitions that the first category stands for philosophical, specifically the Popperian interpretation of historicism. According to Colquhoun, historicism in architecture, as defined in categories 2 and 3, belongs to a broader category of historical phenomena and is not bound to category 1 of historical determinism. In that respect, Popperian historicism was not directly related to architectural historicism and was thus not topical in the field of architecture. However, historicism was the basis for his critique of utopia and the exaltation of tradition, which substantially influenced Colin Rowe's theory on urban design.

Utopia

The central argument of Popper's *The Poverty of Historicism* has been mainly acknowledged as "historicism" as suggested by the title. Indeed, for Popper, historicism was just an instrumental concept for a critique of "utopia", which appeared to be his primary concern. By defining historicism slightly differently than previous attributions, Popper (2002a, 65) was able to claim that historicism has an "unholy alliance with utopianism." What brings historicism and utopianism together is the fact that they were both defined as holistic and totalitarian doctrines. Popper (2002a, 68) wrote, "both the historicist and the Utopianist believe that they can find out what the true aims or ends of society are; for example, by determining its historical tendencies or by diagnosing the needs of their time". Therefore, both the historicist and the utopianist search for universal laws and generalizations, the former by seeking the definitive historical development and the latter by seeking the ultimate future progression. By applying this definition, Popper argued in his book *Open Society and Its Enemies* that Plato, Marx and Hegel were the greatest enemies of democracy and open society.

In *Collage City* (1978, 95), Colin Rowe and Fred Koetter stated, "in our own interpretation of the activist utopia our indebtedness to Popper's position should be evident". Utopia was a key concept for Colin Rowe to criticize the totalitarian character of Modernist city planning and to develop an alternative urban design approach. In fact, Rowe's interest in the notion of utopia was visible in his article *The Architecture of Utopia* published in the student journal *Granta* in 1959, preceding *Collage City* by 20 years. By referring to the various city visions beginning from the Renaissance (e.g., Filarete's *Sforzinda* and Scamozzi's *Palma Nova*) to modern architecture (e.g., Chiatton's *Futurist City* and Le Corbusier's *Plan Voisin*), Rowe (1976, 206) showed how "utopia and the image of a city are inseparable" and how utopia was attached to the "classical image of changelessness". He criticized utopian cities for being independent of time, place, and history and emphasized his interest on "concrete and the specific", "things as found", "empirical fact", "data collection", etc. (Rowe, 1976, 213). Rowe did not make any reference to Popper in the original essay. He finally made the explicit reference in the Addendum of the essay written in 1973. In the Addendum, Rowe criticized the other contributors of the journal for

overlooking Popper, while also putting Popper down for rejecting utopia completely. In this context, Rowe (1976, 216) ended the Addendum by stating, “utopia will persist – but should persist as possible social metaphor rather than probable social prescription.”

Tradition

After criticizing historicism and utopia, Popper introduced the notion of tradition to explain and interpret the development of scientific knowledge. According to Popper, scientific progress is based on tradition as scientists should continue from earlier developments and carry on a certain tradition. In his book *The Logic of Scientific Discovery*, Popper proposed a new scientific method as opposed to induction. He criticized the method of induction by claiming that experiments and observations cannot lead to a theory and “theories are not verifiable, but they can be ‘corroborated’” (2002b, 248). Therefore, science develops through conjectures and refutations. In other words, hypothesis is the point of departure in problem solving, not observations or experiments. It is not possible to justify or verify a hypothesis but only possible to test it by trying to refute it. In that respect, scientific progress is based on the falsifiability of hypotheses and science is about discovering new problems, not making its answers final. Thus, Popper’s rejection of utopia was also reflected in his scientific method. He implied that there is no ultimately true or ideal theory in science; an attitude that Thomas Kuhn claimed would make science impossible and perhaps architecture too. Architectural design seeks for ideal and also final concrete form, which is different from the sciences that Popper was addressing.

Colin Rowe was highly influenced by Popper’s scientific method and adapted it in his architectural design teaching in Cornell University. Conjectures and refutations were appropriated as key approaches for students to develop their designs and evaluate them in the studio (Hurt, 1983). However, Popper’s claim for tradition not only influenced Rowe’s pedagogical approach through the scientific method but also affected his theoretical attitude. The last chapter of *Collage City* brought Popper into the center of the discussion on tradition. The chapter titled “Collage City and the Reconquest of Time” began with a quotation from Popper that concludes: “in science we want to make progress, and this means that we must stand on the shoulders of our predecessors. We must carry on a certain tradition...” (Rowe and Koetter, 1978, 118). Mentioning the importance of tradition as a critical tool for developing society, Rowe and Koetter (1978, 122) defined “the role of traditions in society [as] roughly equivalent to that of hypothesis in science”. In other words, tradition was proposed as a point of departure for any architectural intervention by offering a dictionary of design language. However, Rowe and Koetter (1978, 124) were also critical of the notion of tradition as they believe that “the abuses of tradition are surely not any less great than the abuses of utopia...”. They criticized Popper as “his evaluations of utopia and tradition seem to present irreconcilable styles of critical involvement” (Rowe and Koetter, 1978, 124). In contrast, Rowe and Koetter wanted to develop an urban architectural theory in *Collage City* that aims at reconciling tradition and utopia.

TOWARDS A NEW METHOD

Popper himself did not mention architecture or urbanism in his writings. He instead attacked grand philosophers and their ideas for being the enemies of open society, either due to their historicist or utopian approaches or a combination of the two. Since historicism and utopianism were considered by Popper as deterministic, totalitarian and holistic, Rowe could use these notions in his critiques of modern architecture and urbanism. Rowe took Popper's definitions of historicism and utopianism as representatives of the discursive, as well as formal, aspects of modern architecture and urbanism and associated his concept of tradition with the character of the traditional city. As was argued in *Collage City* (Rowe and Koetter, 1978, 122):

"... Popper, the apostle of scientific rigour, further represents himself as the critic of utopia and the exponent of tradition's usefulness; and it is in these identical terms that he may also be seen to emerge as, by implication, the greatest of critics of modern architecture and urbanism (though in practice it might be doubted whether he possesses the technical capacity, or the interest, to criticize either)."

Transposing Popper's ideas to architecture was not a straightjacket for Rowe as he was conceptually in constant struggle with Popper's ideas. Rowe was searching for an in-between solution between the utopian modernist city and the traditional city since neither of them could by itself be a model for contemporary urbanism. The traditional city is inappropriate today in terms of its scale and size while the modernist city is inefficient in creating lively urban environments by designing buildings as objects, as space-occupiers rather than space-definers. Therefore, Rowe was looking for a design model that could bring together the urban character of the traditional city and the utopian component of the modernist city. The striking fact is that Rowe's solution to reconcile both tradition and utopia was again grounded on Popper's thoughts: piecemeal social engineering and the Gestaltian understanding of whole. These two categories make it clear that the underlying problem of architecture and urbanism was defined as the "problem of whole", for which Rowe tried to develop his own particular response.

Piecemeal Social Engineering

In his *The Poverty of Historicism*, Popper (2002a, 61) criticized social engineering for aiming at "remodeling the 'whole of society' in accordance with a definite plan or blueprint". Criticizing the totalitarian holistic approach of social engineering, Popper (2002a, 42) argued, "no matter how much it prides itself on its realism and on its scientific character, is doomed to remain a Utopian dream". Therefore, social engineer is a significant agent in realizing the technologically grounded totalitarian and holistic utopian plans as well as deterministic historicist approaches. Against the holistic social engineer, Popper (2002a, 61) proposed a "piecemeal social engineer" who tries to achieve his ends "by small adjustments and readjustments which can be continually improved upon." Therefore, the piecemeal social engineer does not seek abstract goods and the "whole" transformation of the society but rather fights with concrete evils to improve the existing social institutions.

Strikingly the social engineer is usually associated with the architect-planners of modernist urbanism who attempted to design cities as a whole with a definitive plan. Rowe, like many architects and theoreticians

5. Commissioned by Pope Clement XII, the head of what was then the Papal state, to reorganize the city's juridical and social administration, Giambattista Nolli prepared the map of Rome in 1748 named *Nuova Pianta di Roma*. Nolli's Map was taken as a paradigm for contemporary urbanism in *Roma Interrotta Exhibition*, which was organized in 1977 by Incontri Internazionali d'Arte and displayed in 1978 in Rome at the Mercato di Traiano. Among 12 participants, Colin Rowe's team designed the most Roman proposal by extending the urban texture of 18th century Rome to the uninhabited hills in their sector (namely Aventine, Palatine, and Celio).

6. Collage, at least as an artists' technique, was first used at the beginning of the twentieth century. Picasso was one of the leading figures to use this technique beginning with his *Still Life with Chair Caning* painting in 1912. For an inspirational reading on Picasso's use of collage, see: (Krauss, 1986).

in the 1960s and 1970s, criticized modernist planning for taking the city as *tabula rasa*, as a blank sheet, on which the city was designed, without incorporating the existing circumstances but by defining and segregating the functional aspects in horizontal and vertical dimensions (e.g. Le Corbusier's *Plan Voisin*). Against this totalistic and holistic approach of modernist planning, Rowe developed urban design, where the role of architect becomes the role of a piecemeal social engineer. Therefore, the emphasis shifted to certain parts, pieces in cities, which need certain improvements in organic relations within themselves and with the rest of the city as a whole. Rowe favored piecemeal design over total design, with its accumulation of fragments, incremental development, and ad-hoc relations of ideal types. It is this context that Rowe and Koetter (1978, 107) took Rome as a paradigm: "So Rome, whether imperial or papal, hard or soft, is here offered as some sort of model which might be envisaged as alternative to the disastrous urbanism of social engineering and total design." Consequentially, Giambattista Nolli's map of 18th century Rome, the capital of the Papal state then, was taken as a model for contemporary urbanism (5).

Building as Set-Pieces or Composite Form

The piecemeal approach was visible not only in the design of urban areas but also in the design of its fragments, namely the artifacts. Against the object-like buildings of modernist architecture, Rowe proposed to design buildings as set-pieces or composite forms. Design of composite buildings was achieved by the use of collage as a design strategy (6). In *Collage City*, Rowe and Koetter (1978) argued that collage could be used as a technique in architectural design for bringing together the ideal types that have accumulated through the history of architecture. Contrary to the modernist architects' role as a social engineer, Rowe introduced the notion of *bricoleur*, borrowing from the French anthropologist Claude Lévi-Strauss. Therefore, the architect, like Lévi-Strauss' *bricoleur*, can design buildings as bricolages achieved by whatever tools and materials, types and vocabularies available at hand. In this respect, Popper's concept of piecemeal-engineer is visible in Rowe's urban design approach with its use of the collage technique. In the "Excursus" of the book, authors proposed *objets trouvés* of urbanistic collage as memorable streets, stabilizers, set-pieces, public terraces, etc. Using elements from different contexts and time frames not only makes the form but also the time composite (referring to a synchronic as opposed to the diachronic understanding of time), which made collage an ideal technique to reconcile tradition and utopia. In the end, "it is suggested that a collage approach, an approach in which objects are conscripted or seduced from out of their context, is – at the present day – the only way of dealing with the ultimate problems of, either or both, utopia and tradition..." (Rowe and Koetter, 1978, 144).

The Problem of Whole

Even though Rowe rejected total design, the problem of whole remained since his collage technique implied impossibility to develop something new in architecture rather than composing the existing types and forms. How do these types and forms come together and establish a *whole* that is not holistic in the sense of utopian and historicist totalitarianism? This brings us back to Popper (2002a, 71) again, since he distinguished two types of whole as: "(a) the totality of all the properties or aspects of a thing, and especially of all the relations holding between its constituent parts, and (b) certain special properties or aspects of the thing in question, namely those

7. During the Texas years in 1955-6, Rowe and Slutzky wrote two essays titled "Transparency: Literal and Phenomenal I and II". The first one was rejected by *Architectural Review* and was published later by *Perspecta* in 1963 while the second one was published with a long delay in 1971 again by *Perspecta*. For a detailed information on Rowe's Texas years see (Caragonne, 1993).

8. Architect and educator Pier Vittorio Aureli favors Campo Marzio as opposed to Nolli's *Nuova Pianta di Roma* exactly for this same reason. For this counter-position, (Aureli, 2011).

which make it appear an organized structure rather than a mere heap." Popper claimed that whole in the sense (b) reflects the characteristics of Gestalt psychology and Gestaltian understanding of whole, which have to be favored as opposed to the understanding of whole in the sense of (a). The reason is that through Gestalt, one focuses on certain specific aspects of the whole and does not see the whole as the totality of all aggregates. On the other hand, understanding of whole in the sense of (a) is problematic as it is totalitarian for defining and determining all the constituent parts and all their relations.

Gestaltian understanding of whole was also the underlying motive of Rowe's urban architectural design approach. Indeed, Rowe's reference to Gestalt is visible from his early works, even before Popper became an influential figure for him. Rowe discovered Gestalt with his interest in paintings and perception, which led to the study of transparency. This constituted the core of his experience at the University of Texas at Austin between 1953-1956, where he, together with Bernard Hoesli, John Hejduk, and Robert Slutzky, was experimenting a new curriculum (7). In that respect, his essay *Transparency: Literal and Phenomenal II* written with Slutzky is significant to understand the impact of Gestalt in Rowe's architecture and urban theory. In the essay, Rowe and Slutzky brought the notion of phenomenal transparency as opposed to literal one. According to Rowe and Slutzky (1976, 161), phenomenal transparency offers, as they quoted from György Kepes' *Language of Vision*, "simultaneous perception of different spatial dimensions" and therefore is open to continuous different interpretations and readings of relations. In this context, altering reading of the figure and the ground available in Gestalt diagrams was defined as the "essential prerequisite of transparency" (Rowe and Slutzky, 1996, 102).

Figure-Ground Maps as a Design Tool

In Rowe's urban architectural theory, Gestaltian figure-ground diagrams were used as a tool to study the volume and space characteristics of traditional and modernist cities. In comparing them through the relation of solids and voids, Rowe showed how the modernist city is composed of freestanding objects on vast open ground (city in the park), while the traditional city is characterized by defined voids shaped by the built mass. In this regard, Nolli's *Nuova Pianta di Roma*, which depicted civic and religious structures white as successive urban spaces while rendering housing and commercial structures black as an urban *poché*, was taken as a model for design. Hence, instead of Piranesi's Campo Marzio, where the city was depicted as the sum of architectural fragments, Nolli's map of the 18th century Rome was favored since Rowe defined architecture not as the design of single artifacts but rather an urban *poché* that has the potential to define and create the civic spaces of democratic societies. (8) As a consequence, figure-ground diagram was not only used for analysis but also applied as a design tool in Rowe's urban architectural design model. First, circumstantial formal conditions of settings were mapped by figure-ground technique to determine architectural compositions. Then, ideal types were distorted and collaged accordingly to achieve a balanced and well-defined figure and ground relationships.

CONCLUSION

In the end, Rowe (1978, 181) offered "*Collage City* as prescription" since his ultimate search was how to teach the science of architecture. His recipe

or the pedagogical model was based on offering a dictionary of design language, a vocabulary of forms, to ignite the design process. Figure-ground plans were used as a base for architectural composition of historical forms and types. Although a pedagogical approach based on formal vocabularies has slowly faded away in academies, use of figure-ground diagram as a static and fix design strategy is still prevalent in many urban design studios. It is therefore significant to revisit *Collage City* again since Rowe himself was aware of the inadequacies of this design approach. In his *As I Was Saying* published in 1996, Rowe criticized the use of figure-ground plans while reassessing his student Wayne Copper's project, whose figure-ground drawing of Wiesbaden later became the cover of *Collage City*. Almost 30 years after Copper's project, Rowe (1996a, 24) stated "now the figure/ground technique will lend itself to the description of cities mostly on flat sites and, mostly, with a ceiling of about five stories; and, apart from that, it doesn't work."

In fact, Rowe wanted to give form literally to Popper's open, democratic, and liberal societies. To achieve this, he adopted Popper's proposal of piecemeal social engineering through collage technique. On the other hand, Rowe was in struggle with Popper's critique of utopia since he did not want to deny it completely like Popper did. Rowe (1978, 181) accommodated "utopia as metaphor" in his architectural and urban design model by using ideal types and forms to create and define the spaces of civic societies. However, Popper's dismissal of utopia was not completely ameliorated in Rowe's design model, theory, and pedagogy. Influenced by Popper's rejection of political and social programs for being ultimately utopian and consequently totalitarian, Rowe disregarded programmatic and eventually the political and socio-economic dimension of architecture and urbanism. This was reflected in Rowe's design education as well, as his student from Cornell urban design studio David B. Middleton (1980, 47) stated, "briefs are rarely, if ever, used in the studio". Therefore, dismissal of programmatic dimension in Rowe's design education reduced his design model to mere formalism.

In short, the Popperian reading of *Collage City* showed the ambiguous and the difficult, but also the productive relation between architecture and philosophy. Influenced by the ideas of Karl Popper, Rowe's architectural and urban design model and pedagogical approach was insufficient since the programmatic dimension of architecture and urbanism was disregarded. Moreover, use of figure-ground plans reduced architecture to its footprint while collage technique of ideal types reduced the design act to extrapolation of known solutions. However, this intertextual reading also revealed Rowe's contemporary relevance in architectural and urban design education for his critique of object-like freestanding buildings and quest for defining and creating the public spaces of civic societies. As Rowe (1996b, 171) himself asked "how to make a city if all buildings proclaim themselves as objects, and how many object-buildings can be aggregated before comprehension fails?". Contemporary cities are still being majorly shaped by object-like freestanding buildings and many design mentors guide architecture students to design icons. Hence, *Collage City* is still relevant today, especially in architectural and urban design education, not as a prescription, but as a metaphor!

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KARL POPPER'S ARCHITECTURAL LEGACY: AN INTERTEXTUAL READING OF *COLLAGE CITY*

Colin Rowe and Fred Koetter's book *Collage City* has been one of the most inspiring works in the field of architecture with its elaborate and stimulating critique of Modernist and Post-war architecture and city planning. Published first as an article in 1975 and later as a book in 1978, *Collage City* has been one of the cornerstones of postmodern architectural and urban theory since. Philosopher Karl Popper's ideas on historicism, utopia, tradition, liberal society, etc. had a great influence in shaping the urban architectural theory and design model of Colin Rowe and his pedagogical approach. Karl Popper's impact is very obvious in the book

and at its preceding Rowe's Cornell urban design studio. However, little attention has been paid to his legacy on *Collage City*. This paper traces Karl Popper's legacy on Rowe's urban design theories and methods through an in-depth comparative reading of *Collage City* and Popper's seminal publications. I argue that a thorough understanding of the context and the content of the collage city argument, and therefore this specific episode in architectural thinking and its contemporary remnants, can only be grasped truly through this intertextual reading. Hence, the intertextual reading in this paper reveals the social, political, and philosophical basis of the collage city argument, which has been approached mainly as a formalist premise so far. In conclusion, the paper aims to reveal the difficult, ambiguous, even blurred, but also productive relationship between the ideas of Colin Rowe and Karl Popper, between architecture and philosophy.

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Anahtar Sözcükler: Mimarlık; Kentsel Tasarım; Karl Popper; Colin Rowe; *Kolaj Kent*

KARL POPPER'IN MİMARİ MİRASI: KOLAJ KENT'İN METİNLERARASI OKUMASI

Colin Rowe ve Fred Koetter'in *Kolaj Kent* kitabı, Modernist ve savaş sonrası mimarlık ve şehir planlamasına getirdiği ayrıntılı ve kışkırtıcı eleştirisiyle, mimarlık alanının en ilham verici işlerinden biri olmuştur. *Kolaj Kent*, ilk olarak 1975'te makale ve ardından 1978'de kitap olarak basılışından bu yana, postmodern mimarlık ve kent kuramının temel taşlarından biri olagelmıştır. Colin Rowe'un kentsel mimari kuram ve tasarım modeli ile pedagojik yaklaşımının şekillenmesinde filozof Karl Popper'in tarihselcilik, ütopya, gelenek, liberal toplum, vs üzerine olan fikirlerinin büyük bir katkısı vardır. Karl Popper'in *Kolaj Kent*'teki mirası, kitaptaki ve ondan önce gelen Rowe'un Cornell kentsel tasarım stüdyosundaki etkisi çok belirgin olmasına rağmen, bugüne kadar pek fazla ilgi çekmemiştir. Bu makale, *Kolaj Kent* kitabı ile Popper'in temel yayınlarının derin karşılaştırmalı okumasını yaparak, Karl Popper'in Rowe'un kentsel tasarım kuram ve yöntemlerindeki mirasının izini sürer. Yazar, kolaj kent savının bağlam ve içeriğinin, ve dolayısıyla mimari düşüncedeki bu özel zaman diliminin ve onun günümüzdeki kalıntılarının, yalnızca böyle bir metinlerarası okuma ile tam olarak kavranabileceğini öne sürer. Bu sebeple, bu makaledeki metinlerarası okuma, bugüne kadar ağırlıklı olarak biçimci bir önerme olarak ele alınan kolaj kent savının, sosyal, politik ve felsefi temellerini ortaya çıkarmaktadır. Sonuç olarak, makale Colin Rowe ve Karl Popper'in fikirleri ile mimarlık ve felsefe arasındaki zor, muğlak, hatta bulanık ama aynı zamanda üretken ilişkiyi ortaya çıkarmayı hedefler.

ESİN KÖMEZ DAĞLIOĞLU; B.Arch, M.Arch

Received her bachelor's and master's degrees from Middle East Technical University, Department of Architecture, where she also worked as a research assistant from 2008 to 2012. Currently, works as a PhD researcher at the Department of Architecture, Delft University of Technology. Major research interests include post-war and postmodern architectural theory, contextualism, and architectural design studio education. E.Komez@tudelft.nl