ULTRA
Positions and Polarities
Beyond Crisis

Image: Michaelmore, Roeger & Russell, *Chester House*, Belair 1966, State Library of South Australia BRG 346/28/6/2.

A Conceptual Framework for Architectural Historiography

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Abstract

Architectural history used to be part of art history, but has been gradually distanced from the latter as architecture develops as an independent modern discipline. Despite debates on architectural historiography in recent decades, architecture as a unique type of historically situated aesthetic objects and design products has not been adequately addressed. To further an independence from art history, and to re-center architecture itself in historical analysis, this article highlights three essential natures of architecture which differentiate it from other types of aesthetic objects (such as painting and sculpture) and design products (such as cars and furniture), while asserting its situated materiality: architecture orders bodily activities and conditions human existence; it necessitates the integration of *techne*, technology, materials, and labor in construction; and it is a collective expressive medium which is shaped by and contributes to the interaction between different social forces. Based on the above propositions, this article provides an upgraded version of the Vitruvian Triad, with the existential replacing *utilitatis* (utility), the constructive replacing *firmitatis* (stability), and the interactive replacing *venustatis* (beauty).

1. For example, Payne, Alina (1999) "Architectural History and the History of Art: A Suspended Dialogue", *Journal of the Society of Architectural Historians*, Special Millennium Issue 59/60: 292-99; Crinson, Mark and Richard J. Williams (2018) *The Architecture of Art History: A Historiography*. London: Bloomsbury Visual Arts.

2. For example, Borden, Iain and Jane Rendell (eds) (2000) *Intersections: Architectural Histories and Critical Theories*, London: Routledge; Arnold, Dana, Elvan Altan Ergut and Belgin Turan Özkaya (eds.) (2006) *Rethinking Architectural Historiography*, New York: Routledge.

3. Lu, Duanfang (2012) "Entangled Modernities in Architecture," in Greg Crysler, Stephen Cairns and Hilde Heynen (eds) *The Sage Handbook of Architectural Theory*, London: Sage, pp. 233–248.

4. Hays, K. Michael (1984) "Critical Architecture: Between Culture and Form", *Perspecta* 21: 16. The quotation is from p. 16.

5. Aragüez, José (2016) "Introduction: The Building's Discursive Building", in José *Aragüez* (ed.) *The Building*, Zürich: Lars Muller Publishers, pp. 10-23.

Architectural history used to be part of art history, but has gradually been distanced from the latter as architecture develops as an independent modern discipline.[1] Despite debates on architectural historiography in recent decades,[2] architecture as a unique type of historically situated aesthetic objects and design products has not been adequately addressed. As such, architectural historians either remain trapped in the methods and techniques used in art history, or drift away towards approaches and frameworks of semantic analysis and social history developed in the humanities and social sciences. Mainstream architectural historiography is still marked by the codification of aesthetically exemplary buildings into stylistic categories, and the ordering of heterogeneous design practices into progressive movements.[3] This creates some awkward dilemmas in the attempts to write global histories of architecture, as the usual categories of styles and movements do not apply to regions outside the Euro-American world, nor do they capture the diverse directions of architectural development evolving in parallel. Narratives developed so far remain fragmented and lack interpretive clarity. Meanwhile, frameworks of semantic analysis and social history have led to two polarized positions in the past few decades. On the one hand, the formalist approach stresses the autonomy of architecture as spontaneous and internalized operations, while "the way in which a building as a cultural object in time is possessed, rejected, or achieved is not addressed".[4] On the other hand, emerging discourses using theories and methods from other disciplines tend to treat architecture as discursive or social space with its physical or aesthetic dimension largely ignored.[5]

To further an independence from art history, and to re-center architecture itself in historical analysis, I highlight three essential attributes of architecture which differentiate it from other types of aesthetic objects (such as painting and sculpture) and design products (such as cars and furniture), while asserting its situated materiality:

> (1) Architecture orders bodily activities and conditions human existence;
> (2) Architecture necessitates the integration of *techne*, technology, material, and labor in construction; and
> (3) Architecture is a collective expressive medium which is shaped by and contributes to the interaction between different social forces.

Based on the above propositions, I provide an upgraded version of the Vitruvian Triad, with the existential replacing *utilitatis* (utility), the constructive replacing *firmitatis* (stability), and the interactive replacing *venustatis* (beauty). I shall discuss each of the dimensions in turn in the following.

The Existential: Ordering and Reordering Human Existence through Architecture

Architecture, like sculpture and painting, is a making of substance into art. Unlike the latter, however, architecture is a making into a massive object in whose voids humans act and live. As Lao Tzu wrote in his *Tao Teh King* 2,600 years ago:

Thirty spokes converge upon a single hub;
It is on the hole in the center that the use of the car hinges.

We make a vessel from a lump of clay;
It is the empty space within the vessel that makes it useful.

We make doors and windows for a room;
But it is these empty spaces that make the room livable.

Thus while the tangible has advantages;
It is the intangible that makes it useful.[6]

6. Lao Tzu, *Tao Teh Ching*, translated by J.C.H. Wu (New York: St. John University, 1961), chapter 11.

7. Heidegger, Martin (1962) *Being and Time*, New York: Harper & Row.

Architectural space is "worlded": it is inscribed with meanings and norms of a society. Members of a certain community at a given time have shared social aspirations and systems of signification, which predetermine what sorts of architecture they invest in. Both the patron and the architect are embedded in this already-existing-network-of-relations in time – what Martin Heidegger calls "care."[7] The desires of the patron and the innovations of the architect may appear idiosyncratic. Yet even when they stretch the rules, their resistance is necessarily informed by a collective understanding of human existence and the dilemmas of its time. Different societies may "world" their built environment differently, and that worldhood is nonessential and subjected to changes over time. Hagia Sophia in Istanbul, Turkey, for instance, has been re-worlded multiple times in history, from being a cathedral to a mosque and to a museum.

8. Pallasmaa, Juhani (2005) *The Eyes of the Skin*, London: Wiley.

Architectural space orders bodily activities and conditions the ways in which human subjects experience their existence through its very spatiality and systems of signification inscribed in it. It is differentiated into a series of zones following a spatial hierarchy and sequence, through which activities and experiences are to some extent pre-programmed. Certain activities are expected to take place at certain locations; to reach the latter one may need to go through a process of thresholding, proceeding, stopping, turning, and entering. Some zones are made more important, set in contrast to minor ones which both serve and prepare people for the former. Their form, size, height, light, shade, materiality, texture, decoration, tectonics, and the resulting overall atmosphere create varied sensual experiences and incite different aesthetic responses, suggesting what is valued and honored. This may involve more than one sensory modality, working on the body's visual, olfactory, tactile, auditory, haptic, and proprioceptive systems.[8] One's sentiments may continue to shift during the progression of movements. Through these mechanisms, buildings (e.g., a Gothic cathedral and a neoclassical town hall) are programed differently not only to support distinct activities but also to enact different understandings of what humans are and should be.

Architecture is embedded in a system of tangible entities (surrounding buildings and neighborhoods, landscape, infrastructure, urban fabric, topography, ecology, etc.) and nontangible forces (cultural beliefs, aesthetic tastes, epistemologies, ideologies, political systems, policies, regulations, etc.). Buildings occupy different levels of symbolic weightiness in this system where things are classified according to relative importance or inclusiveness. In ancient China, for example,

many lived in courtyard houses whose layout embodied the hierarchical Confucian ethics. Scholars created gardens as a temporary escape from that world, following the Taoist philosophy of the man-nature relationship. Buddhist temples were often set away and high up in mountains, constituting heterotopias for worship, reflection, and transformation. By differentiating what were near and far, this spatial system conditioned the workings of different worldly forces, forming the unique existential constitution of the ancient Han Chinese.

9. Heidegger, *Being and Time*.
10. *Ibid*.
11. *Ibid*., p. 155.

People habitually use space transparently, which Heidegger would categorize as "ready-to-hand."[9] In Division I of *Being and Time* Heidegger seeks to show that much of the human way of being can be described without recourse to deliberate, self-referential consciousness, but rather as mindless everyday coping in the background of a shared understanding of being.[10] He proposes that a human being must be understood "in what it does, uses, expects, avoids – in the environmentally ready-to-hand with which it is primarily concerned".[11] Being members of a certain society, we grow up in norms and practices inscribed in us. As a result, we deal with architectural elements often in an unreflective human way. While one is using a staircase, for example, one does not need to consciously think of the stairs in order to climb them; one's body naturally knows how to proceed.

12. Bourdieu, Pierre (1977) *Outline of a Theory of Practice*, Cambridge: Cambridge University Press.

13. *Ibid*., pp. 133-53.

Here lies both the very danger and the very strength of architecture in terms of its place in politics. On the one hand, power relations often insinuated themselves in architectural space in such a way that social members take them as a natural matter-of-fact rather than a contestable human construct. Take Pierre Bourdieu's account of the Kabyle house in Algeria as an example.[12] The main door of the Kabyle house, to the east, is male while opposite is the smaller female entrance. The woman's loom is placed against this west wall. The attached stable, a dark place associated with sex, death and birth, is a female space, while the higher, lighter, living space is associated with the nobility and honor of the patrilineal head of the household.[13] Although the architectural space of the Kabyle house expresses and reinforces unequal gender roles, it is experienced by locals as a way of being-in-the-world rather than an institutionally enforced patriarchal system.

14. Jameson, Fredric (1997) "Is Space Political?" in Neil Leach (ed.) *Rethinking Architecture*, New York: Routeledge, pp. 266-67. Cited from p. 262.

15. *Ibid*.

On the other hand, it is also the very materiality of architecture that enables certain socio-spatial innovations to consolidate their concreteness in space. The corridor is a case in point: the modern shape of our buildings came into being only as a consequence of the invention of the corridor in the seventeenth century.[14] Before this, "a person used to negotiate by passing through a rat's nest of other rooms and stepping over sleeping bodies".[15] The significance of such innovation not only lies in the modernist types of rooms it shaped, but lies in a set of new social relationships it helped generate, such as the notions of privacy and the nuclear family. Even a piece of bread demands a glance before we decide to eat it, whereas an architectural space can be lived in, be moved around in, and totally ignored all the time. It is through people's shared, unreflective way of using the newly introduced spatial element that architecture hardened the fluid moments of social innovations into durable apparatuses, where new subjectivity is formed and human activities are re-ordered without further contestation.

The Constructive: *Techne*, Technology, Materials, and Labor

16. Porphyrios, Demetri (2002) "From Techne to Tectonics," in Andrew Ballantyne (ed.) *What is Architecture?* London: Routledge, pp. 129-37.

Techne is defined here as intelligence and craft put into the practice of construction, which is the artistic side of technics. According to Demetri Porphyrios, *techne* in Greek was used as a concept opposite to nature (*physis*), which formulated knowledge into specialized procedures and methods.[16] Their execution transforms raw material into products in such a way that the latter's appearance reveals the way in which they are made in contrast to natural things. Gevork Hartoonian traces the use of the term by Vitruvius and Palladio, stressing "the ontological bond between art and science."[17] From the end of the 17th century, he argues, due to the rise of the Cartesian logic and other tools that measured the natural world, people began to pay more attention to the inner structure of architecture beyond the outer appearance. As a result, *techne*, in its classical sense, was replaced by technology or technique.[18]

17. Hartoonian, Gevork (1994) *Ontology of Construction: On Nihilism of Technology in Theories of Modern Architecture*, Cambridge: Cambridge University Press.

18. *Ibid.*

19. Frampton, Kenneth (1995) *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, Cambridge, MA: The MIT Press.

20. Semper, Gottfried ([1851]1989) *The Four Elements of Architecture and Other Writings*, tr. Harry F. Mallgrave, Cambridge: Cambridge University Press.
Semper, Gottfried (2004) *Style in the Technical and Tectonic Arts, or, Practical Aesthetics*, tr. Harry Francis Mallgrave and Michael Robinson, Los Angeles: Getty Research Institute.

21. Frampton, Kenneth ([1990]1996) "Rappel à L'ordre, the Case for the Tectonic", republished in Kate Nesbitt (ed) *Theorizing a New Agenda for Architecture*, New York: Princeton Architecture Press. Cited from p. 521.

The renewed interest in *techne* was associated with the late-20th-century attempts to advance the art of architectural making by privileging tectonics over stereotomics in response to the scenographic approach of postmodernism.[19] The taxonomy can be traced to Gottfried Semper's writings, which distinguished the critical elements of architecture in terms of the tectonic, associated with lightweight framing components, and the stereotomic, as a form of earthwork construction with the stacking of heavy-weight units.[20] Relating to these are two technical skills of masonry and carpentry: while solid mass is piled up in the masonry system, carpentry represents a different constructional method with linear, lightweight elements connected through joints. While Semper conceptualized the tectonic to develop a new architectural reasoning to move beyond the stylistic focus of his time, the late 20th-century theorists sought to break with the postmodernist fever that occupied their contemporaries by forming new theories that stressed tectonic sensitivity and material integrity. Kenneth Frampton, for instance, identifies the dual quality in the *tectonic object* as being simultaneously ontological and representational, which differentiated it from the *technological object* that "arises directly out of meeting an instrumental need," and the *scenographic object* that "may be used equally to allude to an absent or hidden element."[21]

22. Leatherbarrow, David and Mohsen Mostafavi (2002) *Surface Architecture*, Cambridge, MA: The MIT Press; Brownell, Blaine (2011) *Matter in the Floating World*, New York: Princeton Architectural Press; Forty, Adrian (2012) *Concrete and Culture: A Material History*, London: Reaktion Books.

23. Zhai, Lilin (1955) "Lun jianzhu yishu yu mei ji minzu xingshi" [On the Art of Architecture, Beauty, and National Forms], Jianzhu xuebao [The Architectural Journal], no.1: 46-68.

24. *Ibid.*

It is widely agreed that choices and treatments of building materials are essential in making and construction.[22] What I would like to stress here is the dynamic and sometimes incompatible relationship between building materials and *techne* in history. The transformation of pagodas in China is an interesting example. When pagodas were initially introduced from ancient India, the Chinese considered that the form did not fit their aesthetic taste, nor did it go well with their timber constructive system.[23] Gradually, timber pagodas in Chinese style were developed based on local aesthetic preferences and ways of building. After Six Dynasties (220–280), bricks were used for pagoda construction to prevent fire damage. The forms of brick pagodas, however, kept some features of the timber ones, and the formal incongruity continued for many generations before proper stereotomic forms were invented.[24] This example shows that changes in building materials and in *techne* do not always occur simultaneously. It may take many experiments to reach a suitable tectonic/technological solution; hybrid forms emerge during the transition from one material to another.

25. For example, Deamer, Peggy and Phillip G. Bernstein (eds) (2010) *Building (in) the Future: Recasting Labor in Architecture*, New York: Princeton Architectural Press; Arantes, Pedro Fiori (2019) *The Rent of Form: Architecture and Labor in the Digital Age*, trans. Adriana Kauffmann, Minneapolis: University of Minnesota Press; Deamer, Peggy (2020) Architecture and Labor, New York: Routledge; Stephenson, Judy Z. (2020) *Contracts and Pay Work in London Construction 1660–1785*, Cham: Springer.

26. Ruskin, John (1960) *The Stones of Venice*, New York: Da Capo.

27. Frampton, Kenneth (1987) "The Work of Tadao Ando", in Yukio Futagawa (ed.) GA Architect: Tadao Ando, Tokyo: A.D.A. Edita. Cited from p. 21.

Labor is another important dimension of construction but remains under-studied until recent years. The effects of labor costs, labor availability, labor organization, and modes of workflow and collaboration upon architectural development are significant and sometimes decisive.[25] Despite the durability, strength, and visual attractiveness of natural stone, for example, stonemasonry was labor-intensive. As the Industrial Revolution disrupted the old labor system and new building materials arose, many handicraft workers lost their livelihood and the traditional craft of stonemasonry died out. Thus, when John Ruskin exalted the exquisiteness of sculptures in the stones of Venice to his 19th-century audience, he understood well that he seemed born to recommend what he could not obtain.[26] By the mid-20th century, while a less sterile built environment was demanded by the consumer society, the latter could no longer afford to ornament a building in ways matching the tastes of former times, due to the elevated salary of craftsmen. Irony and parody in architectural postmodernism, though usually considered a common symptom of the time, may be read as a grudging reaction to the dilemma. The resulting postmodernist architecture was, more often than not, kitschy, flat, and pseudo-historical. Signaling a deep dissatisfaction with this scenographic effect, the tectonic discourse in the 1990s introduced a new education of desire for craft-like detailing in architecture. The new Arabian Nights phantasm that tectonics theorists presented is no longer the one created by delicate stone reliefs bustling in the Venetian sun under Ruskin's pen. Instead, students of architecture are instilled with a new desire for "the effect of a mass dematerialized by light" in Tadao Ando's concrete, whose materiality is "denied by the apparent lightness of its slightly undulating tactile surface".[27] The craft of making and detailing often means more time investment from architects, turning the latter into contemporary craftsmen. Some delicate projects by Peter Zumthor, for example, took years of work.

28. For example, Kolarevic, Branko (ed.) (2003) *Architecture in the Digital Age: Design and Manufacturing*, New York: Taylor & Francis; Picon, Antoine (2010) Digital Culture in Architecture, Basel: Birkhauser; Marble, Scott (2012) *Digital Workflows in Architecture: Design, Assembly, Industry*, Basel: Birkhäuser; Bañón, Carlos and Félix Raspall (2020) *3D Printing Architecture: Workflows, Applications, and Trends*, Singapore: Springer Singapore.

The technological has replaced the tectonic to be the new focus of attention since the late 1990s. A range of developments in digital architecture have radically changed the relationship between designing and making: algorithmic design generates architectural outputs based on numeric inputs; digital fabrication links architects directly to manufacturing processes and provides them opportunities to engage with materials in new ways; artificial intelligence and machine learning facilitates the design process; and some labor-intensive tasks in construction are now the target of automation.[28] We are closer to the Bauhaus dream of unifying methods of mass production with artistic vision than ever before.

The Interactive: Aesthetic Character vs. Style, Assemblage vs. Movement

A building is a collective expressive medium situated in place. Once constructed, it is subject to judgments from all walks of life; even a private house possesses a public face. While most people do not have specialized knowledge about styles and forms, like many other creatures on earth, they all have an innate capacity of forming their own aesthetic response. Good architecture has long been appreciated for the sensuous pleasure it incites; certain aesthetic characters are recognized as more agreeable than others by the general public at

a given time. Many Chinese, for example, dislike CCTV Headquarters in Beijing designed by OMA (2013), while almost all love the Canton Tower in Guangzhou by IBA in collaboration with Arup (2010). The former is dubbed "Large Boxer Shorts" (*da kucha*) and the latter "The Slender Waist of a Dancing Beauty" (*xiaoman yao*). It is widely agreed among anthropologists that naming is a key method people use to sort their experience into a system of categorization. While CCTV Headquarters was conceived by designers as a closed loop, the lower horizontal section, however, is often missing from street views, making the building look like an enlarged version of Tony Smith's sculpture "For Marjorie" (1961). The mighty composition of elementary forms following early modernist creeds also reminds one of the work of Russian Constructivists. Despite acclaims received from architectural critics, the building's nick name "Large Boxer Shorts" summarized the feelings of the general public in their encounter with it: working-class manliness in its resemblance to men's shorts, absurdity due to lack of a credible structural logic, and repressiveness for being giant and heavy – a set of negative traits of the past era that should be shaken off today. In contrast, the naming "The Slender Waist of a Dancing Beauty" communicates the aesthetic character that common people experience in the Canton Town: delicacy in its concave curvaceous silhouette, dynamism in its twist form, and elegance in its deftly textured structure. These perceived attributes reflect new societal desires for playfulness, innovation, and classiness in the digital age. This explains why Zaha Hadid was favored for key public projects in China in the past decade. The choice was less about individual virtuosity; it had more to do with organic dynamism featured in her later work, the aesthetic character considered best epitomizing the desirable attributes of contemporary cities. As such, her death has not changed the tendency of the continuous proliferation of similar products in China, provided by Zaha Hadid Architects, MAD, and other firms.

29. Hume, David (1896) *A Treatise of Human Nature*, Oxford: Clarendon, p. 586.

By using this example I would like to highlight the importance of aesthetic character in historical explanations, defined here as the disposition of architecture as it is perceived. Following David Hume,[29] I consider the attributes of being beautiful and ugly not inherent in objects themselves, but rather the feeling incited by the latter in a human subject. An aesthetic response is formed when one sees the character of an architectural object as a whole while comprehending the detailed treatments of its parts simultaneously. Societal consensus may be formed when people interact and share their architectural feelings. Although specific stylistic details, visual proportions, and physical properties are important for architects' manoeuvre, what matters more for society is this collective discretion. As the existential constitution shifts, desirable characters may change radically; the same architectural object may no longer be aesthetically appealing to the general public or to certain social groups. It is architects' responsibility to discern such changes and needs of different social groups, and to develop new formal and spatial repertoires accordingly. Only forms which match the societal aspirations of the time will be widely adopted; similar forms may reappear again and again under favorable circumstances. To develop accurate historical explanations on why certain choices were favored or unfavored in history, I argue, it is important to go beyond mere referential materiality to examine how architectural forms were perceived at the time.

The concept of aesthetic character stresses social members' interaction with architectural objects. In contrast, the notion of style addresses constant physical elements and ways of expression in architectural objects of a particular historical period, region, or individual architect. While the usefulness of style in categorization is not to be denied, stylistic details themselves do not explain the changes from one style to another. With its focus on style, mainstream architectural history often reads like an incomplete post-mortem report of the dead bodies of styles, depicting a linear progression of stylistic developments without including an adequate analysis regarding the cause of their death.

30. Boyer, M. Christine (1996) *CyberCities: Visual Perception in the Age of Electronic Communication*, New York: Princeton Architectural Press, p. 33.

31. Macarthur, John and Naomi Stead (2012) "Introduction: Architecture and Aesthetics", in Greg Crysler, Stephen Cairns and Hilde Heynen (eds) *The Sage Handbook of Architectural Theory*, London: Sage, 123-35. Cited from p. 125.

32. *Ibid.*, p. 129.

Architecture communicates not only through its very physicality, but also through its ability to generate discourses. A major piece of architectural work can give rise to a vigorous discussion around itself, causing discourses to be distributed, consumed, and transformed: "with weekly if not daily cov¬erage in the printed media, documentary films on television, and a consistent presence as background in advertisements for style-of-life consumer items".[30] It is through this participation in discursive processes that architecture is shaped by and contributes to the interaction between different social forces, through which its collective value is achieved. Notably, following modern art, stories of modern architecture have often been told in the form of movement, in which a small number of avant-gardists articulate a new legitimacy while denigrating the existing. Unlike style, the concept of the movement focuses on the role of avant-gardists as thought leaders in boundaries-pushing changes. It stresses the discursive, critical, and intellectual dimension of architectural development, hence the naming of movements often uses the -ism suffix. The transition from style to movement in architectural historiography signals the attempt to go beyond the aesthetic and champion the "space of critical potential", highlighting the agency and autonomy of architects.[31] This is aligned with the approach to modern art, where "an interest in beauty and pleasure was understood as anti-intellectual, and aesthetics as the attempt by reactionaries to normalize an uncritical account of art".[32]

33. For example, Kusno, Abidin (2000) *Behind the Postcolonial: Architecture, Urban Space, and Political Cultures in Indonesia*, London: Routledge; Bozdogan, Sibel (2001) *Modernism and National Building: Turkish Architectural Culture in the Early Republic*, Seattle: University of Washington Press; Prakash, Vikramaditya (2002) *Chandigarh's Le Corbusier: The Struggle for Modernity in Postcolonial India*, Seattle: University of Washington Press; Rowe, Peter G. and Seng Kuan (2002) *Architectural Encounters with Essence and Form in Modern China*, Cambridge, Massachusetts: MIT Press; Crinson, Mark (2003) *Modern Architecture and the End of Empire*, London: Ashgate; Noobanjong, Koompong (2003) *Power, Identity, and the Rise of Modern Architecture: From Siam to Thailand*, Florida: Universal Publishers; Andreoli, Elisabetta and Adrian Forty (eds) (2004) Brazil's Modern Architecture, London: Phaidon; Lu, Duanfang (ed.) (2010) *Third World Modernism: Architecture, Development and Identity*, London: Routledge; Isenstadt, Sandy and Kishwar Rizvi (2008) *Modern Architecture and the Middle East: Architecture and Politics in the Twentieth Century, Seattle*: University of Washington Press; Karim, Farhan (2019) *Modernism of Austerity: Designing an Ideal Home for the Poor*, Pittsburgh: University of Pittsburgh Press.

34. For example, Deleuze, Gilles and Felix Guattari (1987) *A Thousand Plateaus: Capitalism and Schitsphrenia*, Minneapolis: University of Minnesota Press; DeLanda, Manuel (2006) *A New Philosophy of Society. Assemblage Theory and Social Complexity*, London: Continuum; Healey, Patsy (2006) *Urban Complexity and Spatial Strategies: Towards a Relational Planning for Our Times*, London: Routledge; McFarlane, Colin (2011) *Learning the City*, Chichester: John Wiley & Sons.

The development of modern architecture has been portrayed as a progression of movements from modernism, postmodernism, to deconstructivism in mainstream architectural history. The concept of the movement, however, is inadequate to capture the complexity, fluidity, and multiplicity of global architectural development. In the past few decades, for example, a new generation of architectural historians have shown how modern architecture was developed, interpreted, transformed, and contested in different cultural, national, regional and local contexts.[33] These processes involve the interaction between diverse social forces whose mechanisms are far more complicated than what the style or the movement paradigm could capture. In response to the analytic dilemma, I consider that an alternative conceptualization based on assemblage theory can help provide a more accurate mapping of the ontological nature of architectural development. The concept of assemblage has emerged in connection with a series of new concepts addressing the problems of instability, complexity, and indeterminacy in both natural and social phenomena.[34] Many of them originated from developments in natural sciences and mathematics: emergence and becoming in ontogeny and phylogeny, adaptation and

35. Prigogine, Ilya and Isabelle Stengers (1984) *Order out of Chaos*. New York: Bantam Books; DeLanda, Manuel (2002) *Intensive Science and Virtual Philosophy*. London: Continuum; Venn, Couze (2006) "A Note on Assemblage," *Theory, Culture and Society* 23 (2–3): 107–8.

36. Gilles and Felix Guattari (1987) *A Thousand Plateaus: Capitalism and Schitsphrenia*, Minneapolis: University of Minnesota Press.

37. Venn, Couze (2006) "A Note on Assemblage," *Theory, Culture and Society* 23 (2–3): 107–8.

38. Anderson, Benedict (1983) *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, London: Verso.

autopoiesis in biology, and chaos and complexity in mathematics, to name just a few.[35] In humanities and social sciences, the discussion of assemblage is often associated with the work of Gilles Deleuze and Félix Guattari, in particular their book *A Thousand Plateaus*.[36] In comparison with the notion of structure which grounds causal determination within a singular logic, as in the work of modernist thinkers such as Karl Marx, Max Weber, and Émile Durkheim, assemblage offers an alternative approach by stressing the multiplicity of determinations and the relational, nonlinear, and contingent character of the inter-relationships between heterogeneous elements.[37]

Despite wide discussion in various disciplines, the properties of the concept of assemblage remain suggestive and its applications experimental. Instead of going deep into these debates, for the purpose of discussion here, I shall briefly illustrate my conceptualization of the differences between movement and assemblage by drawing some parallels with anthropologist Benedict Anderson's comparison of two textual genres essential for the making of national subjectivity: the novel and the newspaper.[38] The novel has a consistent plot, through which characters are linked and recognized by the omniscient reader as existing in the same construed world. Contrastingly, Anderson suggests, without a linear plot, newspaper links disparate events together purely due to their coincidence on a given calendar date; it is the experience of reading the identical day-by-day clocked history that connects anonymous people together. Like in a novel, narratives on an architectural movement follow a coherent storyline with identifiable composition of characters, in which the avant-garde are given a prominent role. Inhabiting in different national spaces, avant-gardists may not agree with each other, but they are nonetheless described as actors contributing to the rise of a new paradigm. In contrast, like newspaper, assemblage does not assume a consistent plot; it stresses the contingent co-presence of heterogeneous elements in a temporarily fixed configuration.

Based on the concept of assemblage, I propose a methodological approach to architectural historiography that further moves away from its singular, linear, teleological, reductionist, Eurocentric, racialized, ethnicized, gendered, and heteronormative grounds that have been contested by new generations of scholarship in recent decades, but nonetheless remains dominant in mainstream historical texts adopted in architectural history survey courses. This approach has a few analytic characteristics. First, it goes beyond the epistemological grid of mainstream architectural historiography centering on the linear developments of styles and movements by exploring a multiplicity of determinations involved in architectural development. These may include, but are not limited to: power, desire, subject making, history making, design talents, artistic tastes, local traditions, religious orders, political ideologies, economy, trade, finance, cultural exchange, knowledge transfer, wars, building methods, technological advancements, intellectual development, everyday practice, colonialism, race, ethnicity, class, gender, and sexuality. Second, the proposed approach highlights *fluidity* in the ongoing stabilizing and destabilizing of architectural forms, discourses, and practices as contingent, unpredictable, and open-ended processes. With disparate social forces at work, there is no certainty of their next movement; instead,

the temporary fixings may continually dissolve and mutate into something else. Third, this approach also stresses the entanglement of heterogeneous endogenous and external elements in architectural actualizations. Some elements might play a more prominent role than others at a given time, new ones might emerge, and existing ones might disappear and reappear over time. When elements from other positions/locations are brought in and tangled with existing ones through complex material and discursive processes, the configuration may be radically changed, leading to the emergence of new social formations.