New Architecture as Infill in Historical Context

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ABSTRACT. Strategies and theoretical issues are analysed in cases, where new architecture is implemented in the historical urban fabric as infill aligned along the street façade with the historical presence. The analysis of examples shows that there is a shift in strategies applied at the beginning of the 20th century until today, from a contrasting approach to referential and differential strategies and back to a contrasting approach in our days; however, it was originally introduced in a different manner.

KEYWORDS: contrasting approach, differential approach, interpretation, modern movement, referential approach.

As an aesthetic operation, the intervention is the imaginary, arbitrary and free proposal by which one seeks not only to recognise the significant structures of the existing historical material but also to use them as analogical marks of the new construction [1, 237].

The relationship between new architecture with its historical context is determined from the values assigned to the meaning of its heritage architecture and consequently its modern interpretation. It is the architect's task to express architecturally his or her era and simultaneously get involved in a dialogue with the context, in which he or she builds.

Our aim is to focus on strategies involved in cases, where new architecture is implemented in the historical urban fabric as infill. The new building is inserted into the continuous streetscape or forms a corner of an urban block, aligned along the street façade with the historical presence.

The problems of the interrelation between the new and old architecture in the urban fabric are crucial in all cities, which represent physically the combination of the historical part of corridor streets, grid organisation of the roads, squares, green public spaces, free standing public buildings and buildings articulated in a line with a main façade. When implementing in a dense urban historical fabric we have to take into account the close proximity of the adjacent architecture, and our intervention should be part of a whole considered as a unity.

Issues involved in the implementation are the notions: place/context, identity, interpretation, metaphoric imitation/analogical composition. The notion of context refers to the existing reality, to the given in its broad sense, whereas the notion of place has additionally a phenomenological connotation. The place is a totality made of concrete things and has an identity that comprises various aspects. It has a physical identity (landform, climate, environmental characteristics), a built environment identity (structure and organization of the urban setting as an imprint on the ground and as a section, size of its buildings, articulation of the building volumes, architectural morphology and materiality). Additionally, it is characterised by its economic identity that encompasses all the economic activities. Its social and cultural identity refers to all social and cultural events; and,



Fig. 1 Café De Unie, Rotterdam (1924-1925). Front elevation [6, 340]



Fig. 2 Café De Unie with the adjacent buildings [8]

finally, its historical identity is related to the collective memory of the inhabitants (monuments, landmarks, events taken place in the city, narratives). Considering all these parameters together, every place has a particular character and is designated by a special atmosphere. Every intervention in a historical context is based on the interpretation of the place since the new should be approached not in isolation but as totality with the existing architecture.

The act of interpreting, in general, is the act of explaining and revealing all that is obscure and underneath the surface. As Colomina Beatriz states: "Architecture is an interpretive, critical act...A building is interpreted when its rhetorical mechanism and principles are revealed" [2, 207]. We use interpretation in the process of designing since it allows us to understand the parts related to the whole vice versa and help us to position a building in relation to everything around it. The connection with the existing reality involved in any act of intervention in historical settings is related in a way to the notion of imitation. Imitation should be regarded in a metaphorical sense and not literal, e.g., in the way Quatremère de Quincy approached it in his seminal piece On Imitation [3]. It refers to the underlying principles of the existing reality, scrutinizing the intentions underlying the form of the precedent. Metaphoric imitation is critical and syntactic since it implies a procedure, where the architect discovers, interprets, actualises and uses the ideas and the generative principles beneath the external form of the buildings of the past. The analogical procedure adopted by Ignasi Solà Morales Rubió [1, 230-237] is close to the idea of metaphoric imitation of Quatremère. Characteristic of the analogical way of creation is the articulation between similarity and differentiation; and, as a result, the intervention is distinguished from the old in terms of materials and techniques but proceeds from the old in terms of its compositional principles.

As opposed to this attitude, the work of the architects of the Modern Movement reveals a *contrasting* approach when intervening in the historical context. The Modern Movement distanced itself from tradition and history. The pioneer architects of the 1920s considered architectural artifacts as isolated objects bearing no concern for the adjacent buildings and their context. As Theo van Doesburg stressed in 1925: "In contrast to frontalism, which has its origin in a rigid, static way of life, the new architecture offers the plastic richness of an all-sided development in space and time" [4, 80]. This statement embodies an attitude toward architectural form that "a building should exist in the round isolated from its neighbours, multi-sided and without preferential faces" [5, 81].

Jacobus Johannes Pieter Oud in his famous Café De Unie exhibited his ideas on composition and considered the building as an independent artifact. It is an example of the Dutch artistic movement De Stijl. Its facade coloured in Mondrianesque primary colours is a composition on vertical and horizontal lines. The building formed a great contrast to its stately neoclassical neighbours (Figure 1).

Conformity to them was not planned [7] and this is apparent in the way he designed the façade isolated, with no information for the adjacent properties (Figure 2).

As Oud pointed out: "To make the café a linking element between the adjoining buildings was inadmissible what was



Fig. 3. Maison Planeix, Paris (1928). View from boulevard Massena [9]



Fig. 4. Maison de Tristan Tzara, Paris (1925-1926). Main elevation [11]

needed here on the contrary was to keep the café completely autonomous and in this way to try by means of rational contrast to respect the value of the one and the other. We have been taught [...] that only that arises organically from the essence of an age goes well with the authentic product of the essence of another age" [8, 345–346].



Fig. 5 Maison de Tristan Tzara. View from Avenue Junot with the adjacent building and the retaining wall [12]



Fig. 6. French Embassy, Berlin (1997–2003) [15]

In Le Corbusier's case, very few buildings have been designed by himself in close proximity with others. Characteristically, in his Maison Planeix (Figure 3), a collaborating work with Pierre Jeanneret, he achieved the implementation of contrasting architecture between two different buildings in terms of volume, height and formal language.

In this elegant building, the architect achieved with its formal, nearly symmetrical facade, the entrance axis, the *piano nobile*, the emphasised ground level and cornice to connect the two adjacent properties (one tall and one low) with its intermediate height. Despite its completely different architectural vocabulary, the building is not juxtaposed strongly with the neighbouring buildings due to its aligned elements in relation to their openings and balconies. Le Corbusier did not comment on his intentions of how he handled the relationship of his building with the old settings; however, he masterfully achieved the connection through contrast and analogy.

As opposed to Le Corbusier and more to Oud, Adolf Loos was more concerned with the context in his infill building, the Maison de Tristan Tzara. Though he never commented on this, "he always situated himself dialectically to the historic continuity of tradition…he was very concerned about how the building fit into its context" [10]. In this building, he applied his ideas on *Raum* plan. The symmetrical street façade (Figure 4) is emphasised by an inverted bay window and is organised basically in two parts.



Fig. 7. Clinical Neuroscience Centre, London (2008) [16]

It curves slightly inwards following the turn of the street. Its masonry base follows the adjacent retaining wall in height (Figure 5) and material and this, with some alignments with the adjacent building, leads to a dialogue with the existing reality despite its difference in the architectural vocabulary.

In this way the Maison fits its context, though Bernard Tschumi comments that the house violates the territory and has a problem of disjunction with the vernacular nineteenth-century suburban Paris [13, 134].

At the end of the modernist period we witnessed a shift from the relativist view of history of modernism to a normative view. As a result, the past was regarded as a heritage and as a base for the new interventions. As Sebastiano Brandolini and Pierre-Alian Croset pointed out "through the debate on the conservation of the historical centres [...] the last twenty years have witnessed in the architectural and urbanistic culture, a progressive attention paid to the existing reality, seen as a patrimony [...] an existing reality no longer to be negated through the project but rather be accepted in its heterogeneity and historical stratifications" [14, 16]. In that period with the urban theory of Colin Rowe, named contextualism, and the development of typological approach to design of the Italian neo-rationalists, a shift occurred towards issues concerning the interpretation of the architectural cultural heritage and its complex relationship with the urban frame. Within this framework, architects developed

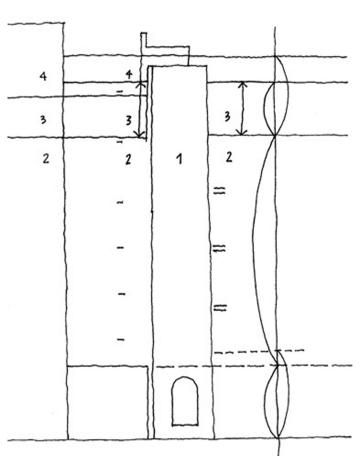


Fig. 8. Basic compositional lines connecting the new with the old [18]

a critical approach through the analysis and interpretation of the existing built environment. The new architecture as infill in a row of old buildings is regarded as a layer added to the existing fabric as the contribution to the formation of totality.

The strategies applied are a matter of interpretation of the historical context and the values attributed to its meaning. An analysis of various infill projects reveals three basic approaches. The first one can be characterised as referential, the second one differential and the third one contrasting. In referential cases, the new develops a language by analogy with the old with immediate and many references to its principles. The architects grasp as a challenge the existing architecture as a productive source for their design. In the differential approach, the new has a different architectural language from the old, is conceived as an abstract continuation of its pattern of development and very few analogies can be traced. In case of contrasting approach, the new architecture is opposed to the existing context violating its principles. The term 'violate' should be understood in the way Bernard Tschumi attributes its meaning as related to intensity, contradiction, dynamism and disruption [13, 121–135]. This approach is more close to Oud's and less to Le Corbusier's.

In the case of the French Embassy (Figure 6) in Berlin, designed by Christian de Portzamparc, the architect achieved the embedding of his building in continuity with the existing fabric with many references to the organizational rules of its neighbour



Fig. 9. "Golden Nugget", Graz (2008) [19]



Fig. 10. 'House Box', Athens (2011), Personal archive of the author

on the left (tripartite organisation, sequential arrangement of the openings in horizontal and vertical direction, nearly symmetrical façade, central entrance, alignments with the row of openings of its neighbour).

Its difference with the adjacent building on its right is mitigated with a reflective surface that mirrors its neighbour and extends visually its façade. Additionally the back yard is organised in analogical way with the buildings of the area.

A recent example of *referential* approach is the Clinical Neuroscience Centre (Figure 7) designed by Allies & Morrison Architects in collaboration with Devereux Architects.

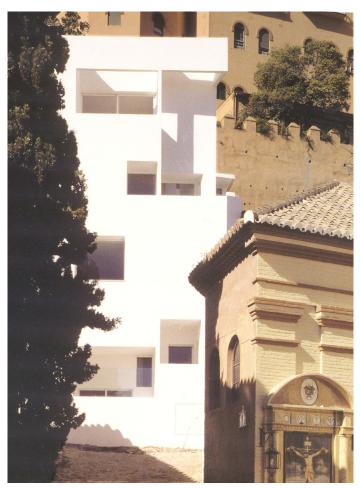


Fig. 11. Casa on the Campo del Príncipe, Granada (2002) [20]

This narrow eight-storey infill has a façade that is intended to create a visual link between its two adjacent buildings. According to the architects' comments, "the design seeks to extend the adjacent Victorian hospital building by continuing the principal building plane in Portland stone and recalling the articulation of its balconies in the projecting stone and metal details of the new elevation. This encourages a natural transition to the horizontal brick balconies of the 1930's Queen Mary Wing. The vertical fins continue the composition of the square as a whole, characterised by a rhythm and proportion borrowed from the original Georgian fenestration. The connection with the red brick Queen Mary Wing is underlined by a bronze surface, held by the metal fins, and is visible only from the west" [17]. This referential approach is precisely mirrored in the architects' words, sketches (Figure 8) and models. The instruments incorporated are proportions, alignments and analogies in materials and compositional rules.

In a similar way, the architects INNOCAD handle an office and residential building (Figure 9) in a plot sandwiched between two protected houses in the historic centre of Graz, which is a UNESCO designated World Cultural Heritage Area.

The street façade of the so-called "Golden Nugget" completes the streetscape, and the golden colour of the laminar net of copper tiles is slightly different from the yellow hue of the adjacent buildings. The new architecture with its neighbours creates an ensemble. The top level is organised under a slope roof creating



Fig. 12. Townhouse, Landskrona [21]



Fig. 13. The Topazz hotel, Vienna, (2012) [24]

a middle step between the roof heights of the adjacent properties. The openings despite their variety in size and distribution have many references to the windows of the adjoined houses through alignments and similar width.

A *differential* attitude is revealed in the "House-Box" in the old area Petralona in Athens designed by Sofia Tsiraki in collaboration with T. Biris. The House (Figure 10) explores juxtapositions between the old and the new.

According to the architect, the preference of a solid 'box' over an open composition of planes was a primary compositional decision that facilitated the integration of the house within the old neighbourhood. Additionally, the small balcony, the analogies of the openings and the syntactical elements of the composition echo characteristics of the historical context. Although the building is contrasted with the environment, it is simultaneously connected with it through alignments with lines of the neighbouring elevations of the building.

A differential example is also the "casa on the Campo del Príncipe" designed by Ramón Fernández, and Alonso Borrajo in the historic Spanish city of Granada. This double residence (Figure 11), despite its diverse form and architectural language, is incorporated finely in the environment due to its abstract interpretation of the place, its composition of the voids, its open balconies and windows, its volumetric articulation, its organization of the facades and its sculptural manipulation.

The context characterised by diverse architectural forms and scales is interpreted and translated into a distinct and balanced modern artifact with allusions to the basic forms and elements of the environment. Its composition is generated by intersections and framing created by the historic surrounding which is characterised by a fusion of myriad architectural styles, of Christian and Islamic tradition [20, 100].

Though in all previously mentioned examples there is balance between similarity and difference, in the Townhouse (Figure 12) designed by Elding Oscarson on a small traditional street of a southern Swedish town, the intensity is obvious.

The narrow site is sandwiched between old neighbouring traditional cottage houses. According to the architects' comment, their aim was to create a sharp contrast, to express inherent clarity, but more importantly to highlight the beauty of the surroundings [22]. This infill contrasts strongly with its neighbours due to its height, type of roof, colour, materials and bears no relationship with them in a close view. However, the extreme impression is diminished if seen in perspective of the road and as the architects refers to: "immediately the adjacent buildings are low, but the street is lined with buildings of various height, size, facade material, age, and approach" [23].

The contrasting presence of the new Topazz hotel (Figure 13) designed by BWM Architekten und Partners was the architects' main intention so as to make the building a real eye-catcher.

According to their comments, "the design is characterised by striking elliptical window openings that jut out slightly. This unconventional, distinctive treatment of the façade gives this round-cornered building a sense of weightlessness and elegance as well as an unusually physical presence within the fabric of Vienna's historical architecture" [25]. It is obvious that the building can be read as "violating" its place with its dominant features that lack any similarity with the logic of composition and the organisation of structure of the buildings of its environment. Its contrast resembles the approach of Oud's café de unie; nevertheless, it keeps the scale of the place and the solid to void relationships.

All examples presented from the beginning of the 20th century show that the pioneers, seeking to express the zeitgeist, created unique buildings of their time. Contrast dominated their approach without considering the old. In the post-war period, we witness a shift towards the polyphony of strategies, including contrasting. Nowadays, this approach is not based on a general doctrine that today's architecture should stand as a symbol of the future. As a starting point, it has the extreme analogical interpretation of the existing architecture and the atmosphere of the place. In strict differentiation, the new with its self-complacent form defines itself essentially through abstraction and implicit interpretation of the old. It is related to the old but interprets their relationship through intensity and conflict. Thus, all contemporary strategies are linked, one way or another, with the identity of the place and its interpretation is a matter that forms the very basis of any intervention in historical context. It is up to the architect's point of view the way he approaches the historical material as a source of meaning and inspiration.

REFERENCES

- Solà Morales Rubió, I. de. From Contrast to Analogy. Developments in the Concept of Architectural Intervention. *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory 1965–1995* (K. Nesbitt, ed.). Princeton: Princeton Architectural Press, 1996, p. 228–238.
- Colomina, B. Architecture production. This Is Not Architecture (K. Rattenbury, ed.) London: Routledge, 2002, p. 207.
- Quatremère de Quincy, Antoine-Chrysostome. Encyclopédie méthodique: Architecture. Tome 2. Paris: Agasse, Imprimeur-Libraire, 1801–1820. P. 543–546.
- 4. **Doesburg, T. von**. Plastic architecture. *Programs and Manifestoes on 20th-Century Architecture* (U. Conrads, ed.). Cambridge, MA: The MIT Press, 1975, p. 80.
- Schumacher, T. Contextualism: Urban Ideals and Deformation, Casabella, 1971, No.359/360, p. 81.
- Gössel, P., Leuthäuser, G. Architecture in the Twentieth Century. Köln: Taschen, 1991. P. 140.
- Taverne, E., Wagenaar, C., Vletter, M. de. J. J. P. Oud: The Complete Works, 1890–1963. Rotterdam: NAi Publishers, 2001. 575 p.
- 8. Rotterdam, Café De Unie by Jacobus Johannes Pieter [online]. *De Engelfriet site* [cited 24.07.2012]. http://www.engelfriet.net/Alie/Hans/verheul.htm
- Paris, Maison Planeix by Le Corbusier [online]. Google Maps [cited 24.07.2012]. https://maps.google.com/
- Tournikiotis, P., Adolf Loos. New York: Princeton University Press, 2002.
 P. 9, 59.
- Paris, Maison de Tristan Tzara by Adolf Loos, photo by alexandrealari [online]. *Panoramio* [cited 24.07.2012]. http://www.panoramio.com/ photo/33628857
- 12. Paris, Maison de Tristan Tzara by Adolf Loos [online]. *Google Maps* [cited 24.07.2012]. https://maps.google.com/
- Tschumi, B., Architecture and Disjunction. Cambridge: MIT Press, 1996.
 280 p.
- Brandolini, S., Croset, P-A. Strategie della modificazione 1, Casabella, No 498–499, 1984, p. 16.
- Berlin, French Embassy by Christian de Portzamparc French embassy, photo by B. Coleman [online]. Flickr [cited 24.07.2012]. http://www.flickr. com/photos/32215181@N08/3932262479/
- London, Clinical Neuroscience Centre by Allies & Morrison Architects [online]. Allies and Morrison Architects [cited 02.09.2008]. http://www.alliesandmorrison.com/projects/health/2008/clinical-neuroscience-centre/
- 17. London, Clinical Neuroscience Centre by Allies & Morrison Architects [online]. *Architecture Today* [cited 02.09.2008]. http://www.architecturetoday.co.uk/?p=1753, AT191/September 08 p83
- London, Clinical Neuroscience Centre by Allies & Morrison Architects [online]. Allies and Morrison Architects [cited 02.09.2008]. http://www.alliesandmorrison.com/projects/health/2008/clinical-neuroscience-centre/.
- Graz, "Golden Nugget" by INNOCAD [online]. INNOCAD [cited 24.07.2012.]. http://php.innocad.at/subsite/golden_nugget/index.php?bild=1
- 20. Bell, J. 21st Century House. London: Laurence King, 2006. 256 p.
- Landskrona, Townhouse by Elding Oscarson, photo by Åke E:son Lindman [online]. ArchDaily [cited 29.07.2011]. http://www.archdaily.com/46808/ townhouse-elding-oscarson/
- 22. Landskrona, Townhouse by Elding Oscarson [online]. *Elding Oscarson* [cited 29.07.2011]. http://www.eldingoscarson.com/
- Landskrona, Townhouse by Elding Oscarson [online]. Contemporist [cited 25.01.2010]. http://www.contemporist.com/2010/01/25/townhouse-in-landskrona-by-elding-oscarson/

- 24. Vienna, The Topazz hotel, Vienna by BWM Architekten und Partners, photo by Lenikus GmbH [online]. *BWM Architekten und Partners* [cited 17.07.2012]. http://bwm.at/
- 25. Vienna, The Topazz hotel, Vienna by BWM Architekten und Partners [online]. *Contemporist* [cited 29.06.2012]. http://www.contemporist.com/2012/06/29/hotel-topazz-by-bwm-architekten-und-partner/



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- **Demiri, K.** Parallel routes of music and architecture. A historical preview, in Biris, T., Demiri, K., Tsiraki, Athanasopoulos, J., Aggelou, A. *Architectural and Musical Interrelations: Counterpoint as a Tool of Composition in Music and Architecture*, (in Greek), Athens: Patakis Publ., 2011
- **Demiri, K.** Interweaving the new with the old: theoretical and methodological issues of rehabilitation, *Architektonika Themata* (in Greek), no. 27, 1993, p. 21–26.
- **Demiri, K.** *Greek Mill Buildings: Historical and Typological Investigation*, Public Benefit Foundation, ETBA, (in Greek), Athens: 1991

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