

The Contextual Detail

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Two questions have generated the theme of this paper: Why are details essential in architectural design? And secondly, does it make sense to talk about architectural details that are based on specific contextual issues, in a modern setting of industrialization, when cultural products (e.g. architecture) are homogenized and when construction technologies are increasingly standardized?

Investigation into these questions forms the paper into two parts. The first part deals with the tectonic aspect of details by unfolding various definitions that seem sufficient when speaking of architectural creation. Whereas, the second part identifies particular contextual approaches to the question of detailing through three case studies.

Details play a significant role to our immediate experience of architecture. We usually get in close physical contact with this small scale of the building. We can touch the materials and analyze the design - thus details provide us with valuable information about the architectural scheme as a whole. One could claim that architectural skill and knowledge is most visible in the detailing of a building. Long after the idiomatic treatment of the whole has been exhausted, details can supply new insights and discoveries, which determine the essence and vitality of the building. On the contrary, inauthentic and poor details can overrule the meaning of the building and turn it into an empty statement, out of time or place.¹

In common dictionaries the *detail* is defined as 'a small part of a whole'. However, this understanding does not seem sufficient when speaking of architecture. In his essay *The Tell-the-Tale-Detail* the American architect, Marco Frascari argues that this definition produces a contradiction in architecture, since a column is both a whole as well as a detail. Frascari advocates that, 'Details can be *material joints* as in the case of the capital, which constitutes a connection between the column and the architrave, or *formal joints* as in the case of the portal, which constitutes the connection between an internal and external space. They are indirect and direct expressions of the structure and the use of buildings.'² Frascari locates the source of architectural meaning in construction and privileges the joint – the original detail – as the tectonic site for architectural innovation and invention.

This reading follows the theoretical ideas of the Italian Renaissance architect, Alberti. Alberti did not apply the French term, *detaill*, when he wrote about small building units; he used the term *compartition*, which he said; "holds all the power of invention and all the skill and experience in the art of building". Alberti defines *compartition* as, "the process of dividing up the site into yet smaller units, so that the building may be considered as being made up by smaller close-fitting buildings, joined together like the members of a whole body."³

To develop the definitions of Frascari and Alberti further one could turn to Steven Holl's perception of details, which he locates within the haptic realm through the sensation of touch. Steven Holl says: "when the materiality of the details forming an architectural space become evident, the haptic realm is opened up. Sensory experience is intensified; the psychological dimensions are engaged."⁴

Per se architectural details tell us the story of their making and meaning and their contextual setting - involving both physical and imaginary dimensions of architectural experience. As units of signification they reflect the intentions of the designing architect - and if the building structure refers to 'the syntax' of an architectural language, the detailing may symbolize small narrative documents, adding their tale to the story of the whole.

In order to illustrate different attitudes (narratives) to the question of detailing three case studies are selected. The apartment block, **Vestersøhus**, **Bagsværd Church** and the **Head Office** for the contractors **Pihl & Søn**. These cases characterize a wide range of building prototypes and are formed by different technological time frames. Also the architects represent some of the most prominent interpreters of a (Danish?) contextual tradition and have in each their own way challenged existing construction technologies. In each case only few particular design features and construction details of the facades are dealt with.

Vestersøhus I-II (1935-39): Architects Kay Fisker(1893-1965) and C.F. Møller (1898-1988)

In the closing paragraph of the article: *The Functional Tradition*, Kay Fisker celebrates what he calls, 'modest, sound and natural houses'. The article discusses regionalism in American architecture - relating it to European - and to Scandinavian architecture in particular. Fisker calls attention to the work of Asplund and Aalto and he concludes: "I don't know any houses that in any more beautiful way carry on the functional tradition. There is a natural, clear unification about this architecture, which due to the existing regional conditions lead to the use of particular materials, constructions and forms. These houses are expressions of a living and rich architectural understanding, free of formalism, grown out of sound humanism

and a strong and positive social understanding - the only basis for a contemporary art of building."

Though, the article was written fifteen years after the Vestersøhus project its architectural design truly reflects the same sort of social, functional and technological understanding. Vestersøhus is possibly one of the most delicate examples of the *bay-window-balcony* housing type developed in Denmark during the thirties. Besides its Nordic influence it also relates to the functional programs carried out in German Siedlung-dwellings. German Siedlung Architecture strived for great amounts of sunlight, fresh air and space. These concerns did not only determine the building layout, but also in the detailing of the facade openings as a transitional zone between the interior and the exterior.

Vestersøhus is a large seven-story apartment block (264 apartments) located on the site of a former Railroad Station, facing St. Jørgens Lake. The client was Anton Nielsen a local contractor who also carried out the masonry constructions. The north/south arrangement of the building determined the layout of the facades, as well as the organization of the apartments. The apartment plans were of great variety, ranging from 1-8-room apartments. The apartment block was built in two tempi, the first part between 1935 and 36 and the second part from 1938-39; a third part planned to face Nyropsgade was never executed. The load bearing structure and the facades are built as genuine masonry constructions of red hand-molded bricks. Each floor slab is made of reinforced, poured concrete and separated from the masonry walls by a thin insulating material. This enables each of the structural elements to work independently and prevent problems caused by the physical nature of the different materials. Also the reinforced concrete floors structurally support the cantilevered balcony and the masonry lintels across the window openings.

As for the facade towards Vestersøgade, the *bay-window-balcony* feature is developed to almost perfection with large, partly recessed and cantilevered balconies, intimately tied to the corner windows. It can be regarded as a volumetric structure consisting of contrasting spatial elements and materials. The facade varies between the voids of the entrances and the semi-recessed balconies, reflecting glazed planes, and the projected balcony parapets that appear as applied screens to the plane of the facade. The masonry adds to the spatial impression of the facade, since the exposed and recessed wall pieces reflect light differently and provide a variety of textile surfaces.

The bay-window-balcony forms an area of transition between the interior and exterior space. One does not get onto the balcony straight from the living room, but the door is

placed discretely in the inner corner of the bay window protected from the weather by the cantilevered balcony above. The low height of the window back, does not only integrate the balcony area visually as part of the interior spaces, but also provides for daylight to reach far into the living room. Furthermore, the orientation of the glazed corner towards the S/W allows for sunlight from noon to sunset – this feature was also pointed out in the commercial material for the building.

The attention to every detail of the Vestersøhus facades shows the architectural approach that characterizes Fiskers work throughout his career. In a student project together with Åge Rafn and Einer Dyggve, he left a comment on the measuring drawing for a traditional town house saying: "Each room has its character... The carpentry, cabinetwork, ironwork, but also the masonry work is executed with great consideration of each room...Rarely is anything allowed if it is not necessary. Ornate lavishness has yielded for a design, where functional reality is immediately perceived and stated".⁵

Vestersøhus perfectly illustrates this understanding: The masonry construction that is a cross bond pattern with pressed joints draws the contour of each brick due to a distinct shadow that leaves a textile vibrant surface. The masonry wall becomes a relief, holding the same sort of dynamic interface between light and shadow, as present in the larger scale of the facade. Also the sash window is painted white, while the window frame is painted black. The ironwork of the balcony parapets are equally painted white, while the grill in front of the basement windows are black. The sidewalk is paved with the same dark red bricks as the upright masonry band at the foundation, while the large entrance platform is paved with dark brown tiles. All these fine features establish and underline specific function and meaning of each architectural element.

Bagsværd Church, (1973-76): Architect, Jørn Utzon (b. 1918)

The day before the opening of Bagsværd Church, Utzon explained in an interview that he was inspired by the formation of clouds when he designed the waved ceiling of the sanctuary. But he added a rather pragmatic comment to this poetic source of inspiration; he saw the church as a *gadget* for holding services as well. When Utzon used the term gadget to describe the church he might have referred to Le Corbusier's idea of 'the house as a machine for living'.⁶ In that sense Utzon agreed with Corbusier's early interpretation of functional architecture and his avant-garde attitude to new technology and industrial means for construction.

Bagsværd Church is situated on a long narrow site running E/W parallel to Bagsværd main road. Due to the small lot there is no cemetery close to the building complex. The landscape design and vegetation on the site is rather modest, reduced to plain grass lawns and few carefully placed birch trees along the pathway of the southern facade. All exterior pathways are paved with simple concrete tiles similar to the ones used in the interior corridors of the church building. Supposedly Utzon also worked out the landscape design.

The building is divided into three sections implying separate functions; the sanctuary, the parish office and a community center. The organization of the plan and building structure provides a visual and an acoustic shield from the exterior and the heavy traffic of the main road. The facades towards East, North and West have no openings and all the entrances to the various parts of the church functions are placed at the southern facade. The main entrance to the sanctuary is hidden in the south/eastern corner.

Each of the 'interior courtyards' or principal spaces of the church are framed by glass roofed corridors. The layout of the plan resembles medieval European convents and monasteries as well as the organization of monasteries in ancient China. Besides the historical references Utzon was also inspired by the traditional Chinese construction practices – *Yingzao Fashi*. The *Yingzao Fashi* building standard originates from the Song Dynasty 960-1279 and is based on the idea that the structure is a kit of parts (special designed) that can be used to assemble different (temple) structures.⁷ This way of thinking construction also shows in Bagsværd Church.

The main structural principle that is the corridor is made of prefabricated concrete elements – concrete pillars are joined together with concrete beams that vary in height, depending on how the corridor roof rises and falls. The structural module of the corridors is 2,2 by 2,2 M. The structure is clad with prefabricated panels made of insulating leca-concrete covered by glazed tiles at the top part of the exterior facades and concrete tiles at the bottom part. Their interior surface is covered with similar concrete tiles, which also are used for paving of the floors. The facade panels are placed so the structural pillars are exposed on the interior. This feature leaves a regular rhythm to the experience of moving down the corridors. On the exterior the facade panels form a recess by the pillars, which let the down pipe integrate into the construction. A delicate facade detail is the use of the glazed and mat tiles. The shapes of the interior vaults are hinted at in the surface texture of the exterior facades by a subtle distinction between the mat and glazed white concrete tiles.

Utzon once said about the glazed tiles, which he used for the Sydney Opera House that he wanted 'the building to be more alive', thus he covered the roof with a material that reflected the sunlight.⁸ The mat and glazed tiles used for the facades of Bagsværd Church seem to reflect not only the sun, but more important the spare light of the dominating gray winter skies in Denmark. Furthermore the plain white facade works as a sort of 'movie screen' for the tree shadows to show and even though the means are simple concrete elements, the facade seems to dissolve into graphic elements that vary dramatically along with change of season.

Head Office for Pihl & Søn, (1994/1999): Architects KHRAS – Jan Søndergaard (b.1947)

The head office for Pihl & Søn represents a true reinterpretation of modernistic architecture. It includes all essential ingredients: the large prismatic volumes – the flat roof and long horizontal window strips, together with large glazed corners. The facades are designed as surface planes that have different textile appearances. In order to integrate this medium-size office building into an exclusive housing area in the northern suburbs of Copenhagen, the volume was divided into smaller units and set back from the road. The building complex is a one-sided, three storey office building consisting of two L-shaped building volumes that are parted by an internal space. This space forms a panopticon that also serves as the main circulation area – it furthermore functions as a 'lighting shaft' to the interior of the building. The office building is a typical contemporary construction that applies structural principles of 'mixed media'. It consist of a poured concrete construction with load bearing concrete walls clad with bricks. The walls that structurally could have continued inside the building 'dissolves' into slender rectangular concrete pillars along the panopticon. The panopticon is an independent steel structure that carries the frame of the skylight.⁹

The facades only include three materials: glass, steel and masonry. The long, horizontal window strips and the slender masonry pillars of the facades are only made possible by the masonry-lintels and visible lintel plates that transfer the weight of the above masonry wall to the load bearing concrete wall. In traditional masonry construction, the pillars have to be minimum 3 ¼ bricks wide in order to have a load bearing function. Here the pillars only have the width of one brick! The masonry facades are made of dark red machine molded bricks, with scraped joints in the same dark grayish color as the graphite paint of the window frames and mullions. The visible lintel plates to resemble the wall ties used in traditional masonry constructions. The glass plane is placed almost flush with the masonry surface, which make the windows seem as mounted onto the masonry walls.

The extended window sill that forms the bottom part of the window also emphasizes this trick effect of the windows. In many ways the facades of the head office are mannered or overloaded in terms of citations to historical construction details and reinterpretation of modernistic architecture. However it still appears true to contemporary construction because it deals with contradictions in building legislation (demands for super insulated yet structurally efficient constructions) and potentials in materials and new structural principles in a quite straightforward way.

In the speech for the opening of the new head office of Pihl & Søn, the designing architect stated: "The ambition with this project has been to create interplay between the whole, the spaces and the detailing, combined with a high degree of functionality, beautiful materials and good traditional craftsmanship."¹⁰ This statement proves that Danish architecture – so far – is rooted in a functional tradition that celebrates subtle architectural expression and honest construction – as advocated by Fisker 60 years ago. However new materials, industrialized construction, and the fast changing technology that have dominated the past couple of decades, confront contemporary architects with highly complex construction details. Now more than ever industrial and commercial forces determine the development of *products* in construction. These products tend toward further standardization and composite or synthetic materials thus the 'essence of materials' or 'true construction and detailing' seem displaced. It therefore will be interesting to see if the Danish tradition for proper detailing in architecture will survive the future – identified as an outcome of contextual consideration (use of natural materials, simple construction design, reading of the site and context and strive for honest architectural meaning). In other words if Danish architects can hold on to the art and craft of contextual detailing and yet transform this skill into sound contemporary architecture.

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² Frascari, Marco, (1984), "The Tell-the-Tale-Detail", *Via*, no.7, The Building of Architecture, pp. 23-37

³ Alberti, Leon Battista, (1988/99), *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Neil Leach and Robert Tavernor, MIT Press, Cambridge Massachusetts

⁴ Holl, Steven, Juhani Pallasmaa, Alberto Perez-Gomez, (1994), "Detail: The Haptic Realm", *Questions of perception: Phenomenology of Architecture*, A+U, July Special Issue, pp. 90-113

⁵ Kay Fisker, Arkitektens Forlag, København, (1995), pp. 12-13

⁶ Frampton, Kenneth, (1995), "Jørn Utzon: Transcultural Form and the Tectonic Metaphor", *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, MIT Press, Cambridge, Massachusetts, pp. 247-299

⁷ Glahn, Else, (1984), "Yingzao Fashi: Chinese Building Standards in the Song Dynasty", *Via*, no. 7

⁸ Fromonot, Françoise, *Jørn Utzon: The Sydney Opera House*, Electa/Gingko, Milano, pp. 210-217

⁹ *Guide no. 2 to Danish Architecture 1960-1995*, (1995), Arkitektens Forlag, København, p. 304

¹⁰ "New Headquarters for E. Pihl & Søn A/S", *Arkitektur DK*, 8, (1994), pp. 457-480