

CONSTRUCTIONAL DETAIL VS. AUTONOMOUS DETAIL: EVALUATING THE NOTION OF ARCHITECTURAL DETAIL WITH RESPECT TO SPATIAL CONSTRUCTION

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Abstract

Very significant to the production of architecture is the notion of 'space', which injects a quality that creates meaning and expression to the final product. But an architectural product is also a collection of parts; joining these parts together becomes a critical aspect of materializing an architectural outcome, both in terms of its structural and environmental performance as well as with respect to its spatial performance. Jointing of parts, in turn, require the application of 'details' to make sure that the expected performances of the final product are achieved without possible failures.

Architectural detail can generally be understood as a small-scale architectural design, which itself is a part of a whole architectural outcome. Some scholars say that a minute architectural detail can convey the entire design concept of the building; others claim architectural detail as an ornamental component of a building. Regardless of these different viewpoints, architectural details provide a critical constructional component to the final architectural product. Architectural detail joins each layer of building elements, parts and systems together, thereby acting as a connecting device. However, the hypothesis that this research is based on argues that, other than being a constructional connector, architectural details signify the meanings and qualities of the 'spaces', which the final architectural product is supposed to accommodate and celebrate.

Judging by the building stock that has been produced in Sri Lanka in recent times, the emphasis given to the act of detailing in architecture is apparently minimal, both in the practice as well as in the discourse. Particularly in the practice, it has become a habit to use a library of commonly used details, irrespective of the typology or context of architecture. On one hand, climatic, cultural and economic factors are forgotten in the process of detailing, thereby compromising the expected performances of buildings and, on the other hand, there is very little regard on understanding details in the construction of architectural languages, and the subsequent formation of spatial meanings and expressions.

In evaluating the aforementioned position with respect to architectural detailing, this paper explores two types of intellectual and pragmatic standpoints: (1) Details as constructional representatives, and (2) Details as autonomous interventions. By assessing these two standpoints on 'architectural detail' through case study investigations, the research explores the role that a detail could play in the construction of spatial meanings and expressions, as much as they are responsible to the construction of the building as a whole. At the conclusion of this empirical study, verifications will be offered to prove how architectural details could bring up a language and a spatial identity in terms of both construction and experience of buildings.

Keywords: *Architectural detail; Design process; Constructional representation; Autonomous representation; Spatial detailing.*

1. Introduction

Architecture – through its elements - is expected to inject a quality or spirit that articulate the space, provide a meaning, and compose a language in a larger scale. In this process, "Architectural Detail" can play an important role, providing a subtle yet powerful meaning to the building. Ford (2011), for example, identifies "Architectural detail" as a small-scale architectural design, where the detail translates the entire building vocabulary to the reader in a coherent manner. Linguistically, Ford (2011) identifies "Architectural detail" as a part of the whole building; constructional-wise, he calls it the fundamental technical component of an architectural design.

The research that formed the intellectual basis for this paper targeted three main objectives. The first objective was to understand, within the confines of the contemporary Sri Lankan architecture, what constitutes the idea of an "Architectural Detail". It was found out that, with respect to the idea of "Architecture" in general and "Architectural detail" in particular, the local meanings and interpretations have often changed with historical sentiments. As Dayartane (2000) states, Sri Lankan traditional architecture had an organic background where the social cultural traits contributing to the architectural form were tied up with the subsequent constructional language of buildings. However, the idea of

“detail” remained to be considered as a function of ornamenting the building canvas. It is useful to explore whether such an outlook to “architectural detail” is still valid within the contemporary Sri Lankan architecture.

The second objective was to understand to what extent an “Architectural Detail” could represent the overall “constructional language” of the building. In general, architectural/constructional language evolves as a coherent composition of signs, structures, phonetics and grammar to create a meaningful expression. The building is a form of language where its form and detail can express the structure/meaning of the architecture. Radford (1985) affirms that the tectonic components act as grammatical components that structure the building system. In such context, it is useful to investigate how – and to what extent – can an architectural detail convey the language in the form of expression, and to what extent can it play a role independent to the language of construction.

The third objective was to evaluate the role “architectural detailing” can play in defining our understanding and experience of an architectural space. In architecture, Unarguably, the habitable space is the important part of an architectural outcome where it dwells around the personal who experience the space.

The analytical hypothesis upon which this research is framed looks at how “architectural details” can form the grammar to the construction language, and how this grammar can in-turn have a strong impact on the way a space is perceived and experienced. In other words, details provide the structural framework for the construction process, where the binary relationship – or lack of it - between “Architectural detail” and “Construction language” can define one’s experience of space and building.

Edward.R.Ford (2011) has defined architectural detail as a part of a whole building, and refers to it as a technical component of an architectural process. In doing so, he has identified five typologies of details:

1. Detail as abstraction
2. Detail as Motifs
3. Detail as Structural representation
4. Detail as articulation of constructions / Joints.
5. Detail as an autonomous or subversive element.

This research was built upon Ford’s above definitions of “Architectural detail” to construct a broader discourse on how detailing has been applied in contemporary Sri Lankan architecture.

As mentioned above, the research’s primary focus was on the binary agreement and/or contradiction between the notions of “Architectural detail” and “Constructional language”. Subsequently, its primary analytical focus impinged on the following two types of details:

1. Detail as a constructional representation
2. Detail as an autonomous or subversive element.

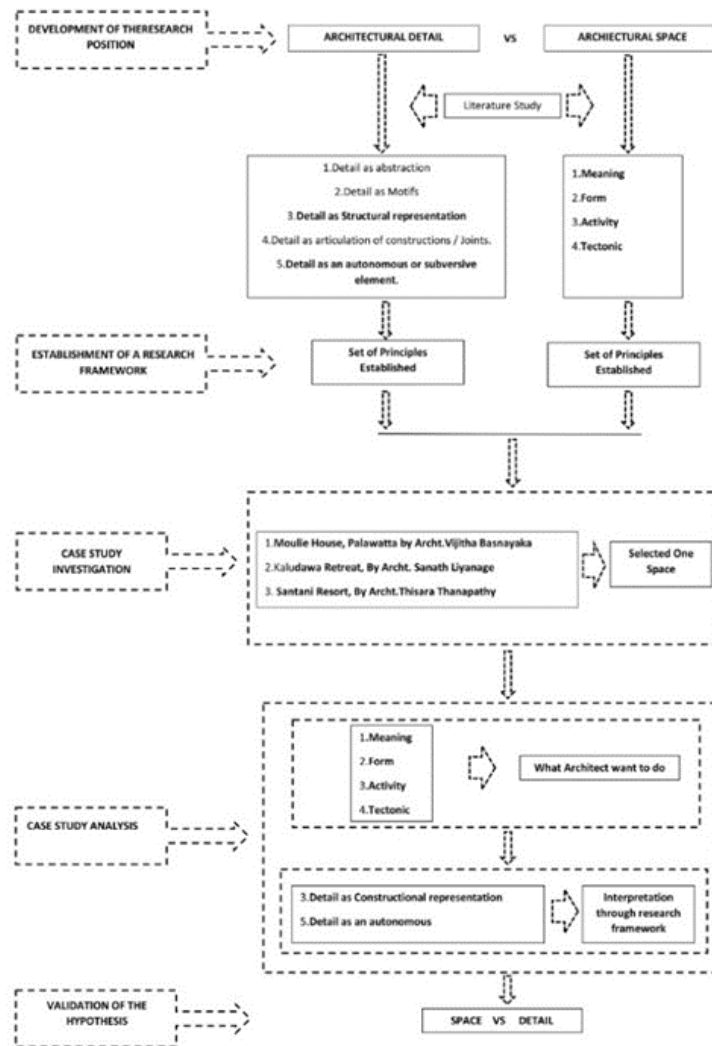


Figure 1: Research Methodology

2. Architectural Detail; Detail as a product

In order to arrive at the aforementioned discursive position on architectural detailing, it is important to first investigate the function of ‘detail’ as an architectural ‘product’ via a broader inquiry on its underlying objectives, applications and meanings. The question of ‘what is an architectural detail?’ is indeed a broader philosophical inquiry, but one may also bring in a rather pragmatic interpretation to the discussion: detail is a strategy that helps putting together various parts of a building in such manner that the building’s overall structural, environmental and aesthetic performances are not compromised.

Edward Ford, on the other hand, claims that ‘architectural detail’ is a term that has been popularized within the modernist discourse of architecture. Though buildings were ‘detailed’ – or ornamented – before modernism, detailing as a theoretical exercise has not entertained the pre-modernist architectural thinkers.

“Detailing is not a word one often finds in pre-modernism writings on architecture. Words like trim, moulding and ornament were more precise and more useful. No doubt detailing, in its technical sense, is of greater consequence in the modern era simply because of the complexity of the modern building, but recent deluge of architectural theory has seen only occasional forays into the question of detailing. There are a variety of types of detail in modernism, more often found in buildings than describes in text ...” (Ford E. R., 2011, p. 18).

2.1 OBJECTIVE OF AN ARCHITECTURAL DETAIL

In general, an architectural detail is both rational and conceptual; pragmatic and theoretical. As Ford (2011) explicitly claimed: a 'detail' extends the larger concept of the design across whole architecture, thereby defining the relevant architectural understanding – and experience - of the building. According to Radford, architectural experience of a building can be established in two ways:

1. By abstraction: Details are used to create an 'abstract' experience of the building by manipulating compositional strategies. It is about understanding a building and external observation.
2. By animation: Details are used to 'animate' an experience as one moves through building.

According to Radford, architectural details can establish the meaning - and experience - of a building in the form of abstraction, animation or both. The above interpretation of architectural detail more or less complies with Ford's assertion (2011) that a "detail" can be a small scale design representing a larger scale architectural ambition.

2.2 DETAIL AS A CONSTRUCTIONAL REPRESENTATION

A review of Ford's generic types of architectural details would reveal that their definitions are largely based on the extent on which they represent the underlying constructional logic of the building.

It is plausible then to suggest that representing the logics, candor and authenticity of construction is dear to a particular school of thought concerning the process of architectural detailing. When comes to architecture, construction is an inevitable phenomenon. There is a universal metaphor between skin and skeleton or clothing and body. Skeleton is known as the structural form of the building. To give a correct form, there must be a correct skeleton to the design. The cladding, on the other hand, is the reflection of the inner skeleton, presenting the overall form through an applied skin. For a building to be 'architecture', the tectonic resolution – and expression – between the skin and skeleton – or the cladding and structure – must be deemed as a key prerogative. This is where the criticality of detail as 'representation of construction' becomes so apparent for most architectural thinkers and practitioners. Following the aforementioned two lines of arguments, there are two modes to define - or express - the construction of an architectural object:

1. Concealment
2. Expression of the real mode of construction.

It must be mentioned that, expressing construction may sometimes lead to the destruction of materiality. In other words, elaborating the true material quality may be compromised in the architect's desire to express the construction. Within post-structuralism, expression of construction became a movement, which evoked mechanical as well as decorative functions

Regardless of the approach of particular architects, the notion of construction detail plays a vital role in expressing/concealing the overall experience of a building artifact. Here, an architect must play a decisive role in determining what function a detail should perform within the overall conception of his architecture.

Within the contemporary practice of architecture, there seems to be greater relevance to detailing as constructional representation, almost by default than by design. This is due to the fact that most of today's constructional processes privilege layered construction as opposed to solid/monolithic/un-layered constructions of the past. Layering the building in terms of structure, skin, fenestration and roof is the favored method of construction at present times. From a detailing point of view, however, relationship between these layers become a critical function that determines the overall performance of the building.

This duality of layering versus monolithic construction will no doubt define the future directions of how buildings are detailed, even in less industrialized economies such as Sri Lanka. In terms of constructional expression, modern architects are left with three choices.

1. To build a new aesthetic in reflective of layering.
2. To build a layered building to be appeared to be monolithic.
3. To simplify as possible and construct using the old way – solid, unlayered construction.

It is however tragic to see how the exterior layer has started to dominate the building expression, with little or no symbolic association between the exterior and the interior layers of buildings. This is an outcome of poor conception of buildings from detailing point of view. In the process, detailing as a true representative of the overall construction has been ignored and overlooked.

Indeed, the function of detailing requires an informed approach to celebrate and reveal the true logics of construction. As mentioned previously, if contemporary buildings are increasingly built in the form of layering, where systems of buildings are layered and constructed separately, then new strategies – and interpretations – of detailing must be spawned.

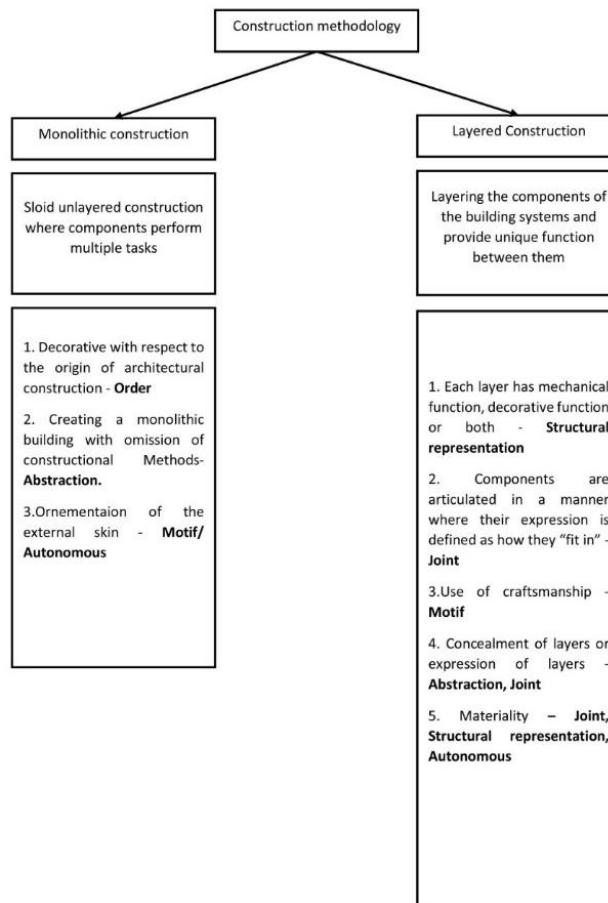


Figure 2: Detail as Construction Representation

Mainly in modern architecture, the relationship between the external layer (commonly known as the skin) and the structural layer (skeleton) defies the overall meaning of the building. Regardless of the particular approaches – i.e., layered or monolithic - the role that an ‘architecture detail’ can play in triggering a proper representation of construction must be recognized and valued. The following diagram depicts how layered and monolithic duality can define different types – and meanings - of architectural details.

2.3 DETAIL AS AN AUTONOMOUS INTERVENTION

The second type of intervention – the opposite of constructional representation – is the autonomous detail. Here, the detail does not complement the building concept or the overall constructional vocabulary. As such, the detail is an isolated realization that departs from the overall construction language.

More specifically, the autonomous detail can be identified as an articulated detail forming a striking and contrasted representation to the architecture as a whole. These kinds of details are more representative of a smaller scale with respect to the building’s functional program - e.g. a handrail detail. But there certainly can be deviations to this norm. Ford (2011) argues that these types of details are more independent / semi-independent from the overall building construction. But Ford (2011) has also stated that these kinds of details too can have a functional origin, even though they tend to be more ornamental in character and objective.

In general, autonomous details can be found in four elements or situations (Ford, 2011):

1. By program / function – i.e., how the spectator engages with the building’s function with respect to the specific piece of detail, such as simple function like eating, sleeping, opening of a door, etc.
2. By joinery/construction – i.e., how the building is assembled; the assembling process of the building elements.
3. By structural resolution – i.e., how the lateral and live loads work along with the structural elements.
4. By the building’s response to its elements/performance – i.e., how the building functions with the lateral forces like climate, energy, etc.

Ford has also identified two characteristics of the autonomous detail:

1. Positive/Literal
2. Negative/Abstract

Accordingly, the positive aspect takes place when the detail accommodates the above four factors (construction, structure, program, performance). On the other hand, the negative aspect triggers when above factors are found to be missing or absent from an autonomous detail.

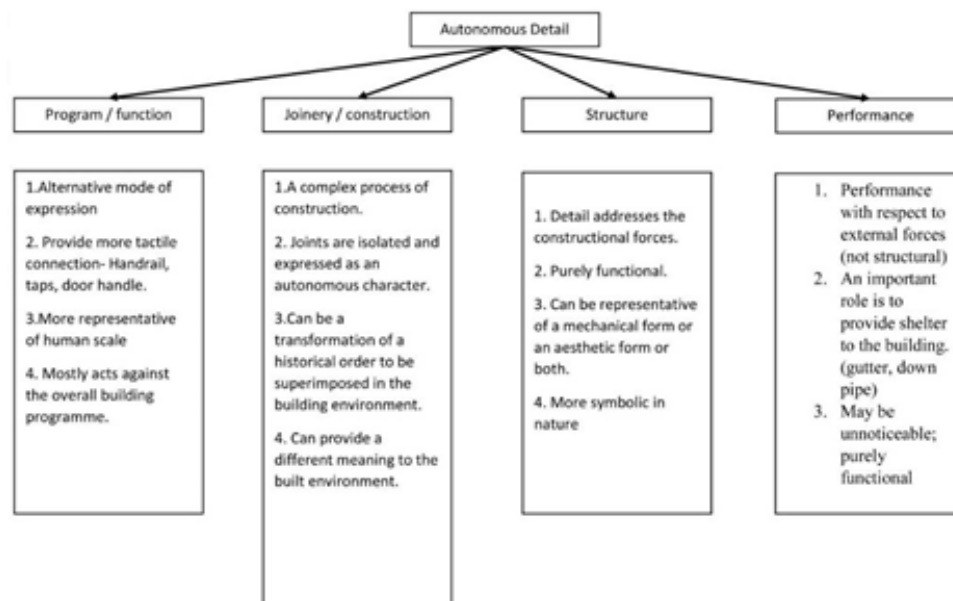


Figure 3: Detail as an Autonomous

On the whole, architectural details are expected to comply with the overall concept of the design. But certain details can oppose the overall concept, the geometric abstraction, and/or the symbolic representation of the building. Such details are called autonomous representations. They can be primary or secondary elements of the buildings – structural or non-structural; architectural or furniture. Some details can even be totally disconnected from its container (i.e., building), and work against the expression of the building, contradicting its role as a part of whole. Some of these details can still weave a positive experience of the building. But buildings are seemingly much better off without them, especially if they are conceived badly. Following is a diagrammatic summary outlining the notion of an autonomous detail as explained above.

3. Space Vs Detailing

The discussion so far in this paper brings us to the critical investigation upon which the research was intended for: the relationship between spatial construction and the art of detailing. In other words, to reflect on how various types and representations of ‘architectural detail’ contribute to the construction of ‘architectural space’, both in terms of the architect’s ambitions (meaning and activity) as well as the perceiver’s experience (form and tectonics).

If as scholars say details are the tools to understand the definition of an architectural language, how can various forms and representations of ‘details’ pay a part in the construction of particular spatial forms, meanings and tectonics? How have local architects manipulated the function of detailing to celebrate the desired architectural intents while eliminating – or concealing - necessary and unnecessary components of building. Can spatial delight be achieved merely by a process of abstraction where the weight of components is removed and the impacts of elements are resisted? Or is it by an act of suppressing information that spatial meanings and order can be generated? What is the spatial impact of a constructional detail as opposed to an autonomous detail? Where does a motif become relevant as opposed to simply celebrating the joint? These were among the key inquiries that formed the basis for an ensuing case study review.

4. Findings and Discussion

In evaluating the aforementioned theoretical inquiry, the works of three Sri Lankan architects were assessed: Vijitha Basnayake, Thisara Thanapathy and Sanath Liyanage. This selection was based on the impetus that these architects generally lent for architectural detailing, as well as to represent a generational mix from the local profession of architecture. For clarity of the study, architectural detailing applied for three buildings by the aforementioned architects were explored under a list of common themes (or architectural expectations).

With respect to inside/outside relationship of spatial volumes, for example, Basnayake has used the organic forms of material and detailing to achieve an architectural expression of breaching the spatial difference between inside and outside, and bringing the exterior inside while extending the interior outside. His autonomous details arise in the spaces where specific ornamental and functional objectives are met. The other two architects, on the other hand, have been keen on eliminating the complexity of the structure and the built forms, focusing on horizontal proportions and using the internal space as a platform to view outside. Even here, Liyanage, while making distinctive internal spaces that contrasts with the outside, uses his detailing to bring the experience of the exterior to inside space. In contrast, Thanapathy is not too obsessive with bringing the nature in; rather, his focus is more in creating a distinctive, meditative, internal space to be used as an emotive platform to view and experience the nature outside.

As such, it was noted that, by a particular use and manipulation of details, three equally wonderful architectural interventions have generated three different spatial meanings with respect to the idea of inside/outside experience. In other words, a particular language of detailing has lent to the

establishment of specific spatial meanings, which in turn has contributed to a distinctive user experience of architecture and the space beyond.





































Case Study 03: Santani Resort by Thisara Thanapathy.	Case Study 02: Kalundawa Retreat by Archt.Sanath Liyanagaha.	Case Study 01: Mauli De Saem House by Archt. Vijitha Basnayaka.	Space
 <p>Experience the nature from higher level, building is contrasted from the nature as well as nature is contrasted from building. From inside of the space nature is highlighted, space which gives user to separate from the nature and experience the scenery and experience the place.</p>	 <p>The meaning of this space is "overlooking". This building is a transit place for tourists getting "WOW" feeling to tourists and on outside uninterrupted vast view of the rocky hill. Dramatic nature and best side-view of nature here. This is not the urban site so he use natural elements to express this meaning.</p>	 <p>Spaces are emerged with outdoor spaces, indoor and door definition is reduced by detailing the building edges, the edges are dynamic, internal, irregular edges to emerge the indoor spaces with outdoor. The finishes are mixed from natural finishes, even as well as some indoor finishes goes out, so there is no definite and line in the building.</p>	Detail
Constructional Representation 	Constructional Representation 	Constructional Representation 	01
Constructional Representation 	Constructional Representation 	Constructional Representation 	02
Constructional Representation 	Autonomous Detail 	Constructional Representation 	03
Constructional Representation 	Constructional Representation 	Constructional Representation 	04
Constructional Representation 	Constructional Representation 	Constructional Representation 	05
Constructional Representation 	Constructional Representation 	Constructional Representation 	06
Constructional Representation 	Constructional Representation 	Constructional Representation 	07
Autonomous Detail 	Constructional Representation 	Constructional Representation 	08
Constructional Representation 	Autonomous Detail 	Autonomous Detail 	09
Constructional Representation 	Constructional Representation 	Constructional Representation 	10
Constructional Representation 	Constructional Representation 		11
	Autonomous Detail 		12

Figure 4: Findings and Discussion

5. Conclusions

Principal challenges for architects nowadays are to construct meaningful spaces which hold a quality and meaning to both the user and discourse. Spatial construction and detailing can certainly inject a quality or spirit that articulate a meaning to the space. In such light, architectural detail is a small-scale architectural design that becomes part of the whole building. This study theoretically summarized those five aspects of architectural details in to two types of representations – autonomous and constructional – as how they influence on spatial creation in a particular regional context.

Spatial construction is undoubtedly a primary objective of architectural production. Architectural space must be habitable, but also be powerful enough to infiltrate the spectator through sensorial mediums.

Spatial languages, concepts and meanings, therefore, is are important for an architect who seeks to generate quality through his or her work. As this study has argued, however, detailing is a process of transferring these larger architectural ambitions into the individual user/spectator experiences. While an architectural idea reflects an overall spatial quality, which in turn defines a path - or a lead - for the detail to follow.

However, architecture is also a process of construction, where the construction elements are layered through architectural details. Thus, the art of manipulating construction details are required to establish spatial meanings and architectural languages. The articulation of such connections – and techniques - will result in various spatial meanings and expressions. Hence, details that are meant to represent construction can define varied meanings and experiences of spaces, depending on how they have been used – and detailed.

Autonomous details, on the other hand, function independently. They have their own configuration and they do not necessarily “*fit in*” in to the building concept. However, the existence of the detail may or may not affect a particular experience of a space.

Today in Sri Lanka, contemporary architecture is inundated with material palettes and building systems of diverse quality, character and performance. In connecting these various materials and subsequent building systems, the usual trend is to follow common, repetitive details burrowed from catalogues and past uses, regardless of what the type, function and meaning that the subsequent architectural spaces are meant to express. This has affected the spatial, technical and environmental performance of contemporary architectural products.

In above context, this study has attempted to define a theoretical framework to understand the notion of architectural detail with respect to how they represent spatial meanings. The study concludes with five important observations. Firstly, buildings with high spatial value use details that represent constructional objectives than those that present an autonomous existence. Secondly, the constructional details can be manipulated – in terms of their choice of material, texture of surfaces and arrangement in the system – to express specific spatial meanings. In other words, constructional details can carry meanings other than its constructional function. Thirdly, when detailing, a similar set of material components can be arranged to different set of configurations, in order to convey different spatial expressions. Fourthly, using autonomous details for ornamentation is not a crime; and if done well, can add to the richness of the space, even though it may not entirely agree with the overall spatial concept. However, the use of autonomous details for the sake of autonomy – or carelessness - may ruin an intended spatial expression. Finally, a proper detailing of an architectural space – one that embraces both quality and meaning – is a task that relies on a careful handling of construction and autonomous representation.

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