

# Tending to the Detail

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To tend to the detail is to turn our attention back to the questions surrounding and supporting the role the architectural detail plays in the making of architectural space. The architectural detail is not passive, disposable, a production drawing buried within the pages of a construction document set, or the product of a specific tool. Within its development and physical manifestations the architectural detail is complex and multi-dimensional. It simultaneously operates at multiple scales addressing constructive, formal, and spatial questions of joining.

The beginnings of the architectural detail can be found within the architect's imagination; cultivated through the unfolding dialogue of hand and mind working to reconcile desires with physical and constructive realities. Embodied within the architectural detail is the architect's knowledge of making; demonstrating their skill, understanding, sensitivity, and position they take as to how materials and spaces are thoughtfully formed and brought together.

The architectural detail is essential to architecture. William Mitchell's presumption that "joints just don't matter" in the new architectural domain of the virtual world is a fallacy if we as architects believe in and are designing for the physical and material world.<sup>1</sup> It is the act of construction that forms architectural space. Without the details architecture cannot exist. Questions regarding the architectural detail transcend tools, be it digital or analog. As architects, we must be careful not to succumb to the seductive qualities tools offer, but rather look to the tools potential and appropriateness as a way to draw-out the questions that are informing the architectural search.

## THE ARCHITECTURAL DETAIL

When the question of 'the detail' is posed in architecture it is often taken as a technical issue to be solved. The Architectural Graphic Standards and material manufacturer's literature are often the first places considered when in search of building details. Within offices a library of commonly used details are kept for reference, use, and modification when developing and 'detailing' a building. Generally, the questions being asked of the detail are centered on its physical and performative requirements: where and how is it being used, and what are the responsibilities and demands being placed on it such as transition, expansion, weather resistance, joining, etc. What can be lost in the 'solving of the detail' is its potential. Seen as solely a technical problem, the detail can become disembodied from the work; treated as a singular moment to be solved around a specific condition. Its potential as a necessary and contributing part to the larger whole and realization of the architectural work can become lost.

There are architects such as Rem Koolhaas who question the idea and relevance of the detail. In an interview, Koolhaas recounts his reaction to the criticism his early built work in Holland received regarding the details. "The critics say the detail of the projects is simply bad, and I say there is no detail. That is the quality of the building. No money, no detail, just pure concept."<sup>2</sup> From Koolhaas's point of view the idea informing the work is (or can be) separate from its physical and constructive realities. The 'concept' is given primary consideration while the detail and detailing is viewed as extraneous - luxuries that the architect can add or take away

based directly on the economic considerations and circumstances impacting the project. While there is an understanding and empathy for the budget and allocation of money, there seems to be an unsettling stance that Koolhaas is advocating between the relationship of 'concept' informing the work and the building's physical realization.

A counter to Koolhaas's position would be August Perret's assertion, "There are no details in construction." On the surface this statement would appear to support Koolhaas, but as Vittorio Gregotti writes, "...he (Perret) meant that the detail is not a negligible part of a work of architecture, but an essential element in its definition."<sup>3</sup> Supporting this position is Marco Frascari who writes, "The joint, that is, the detail, is the place of the meeting of the mental construing and of the actual construction."<sup>4</sup> What Gregotti and Frascari are advocating is that the architectural detail is fundamentally rooted in the choices and decisions the architect is making regarding "the union of construction."<sup>5</sup> The detail is not subordinate in the work, but rather initiates and frames the questions that surround the conditions and circumstances of joining that forms and constructs architectural space. For the architect how the detail is treated becomes a position taken on the articulation of the joint. One architect might choose to express the detail, seeking to emphasize the presence of the joint. The detail becomes the expression of how materials are being brought together to reveal the forces, connections, and components within the building. Another architect might pursue a different type of articulation that strives to conceal or veil the joint with the intent of bringing forward other qualities such as volumetric, formal, and spatial conditions. In either case, the detail is essential in the conception of the architect's work.

An example of these differing positions regarding the articulation of the detail can be found in two buildings situated across a plaza from one another within San Francisco's Golden Gate Park: the California Academy of Sciences designed by architect Renzo Piano and the de Young Museum designed by architects Herzog and de Meuron (figures 1 and 2). For Piano, the detail is revealed through the expressive and constructive qualities of how materials and assemblies are brought together. The gathering and resolution of building structure, enclosure, and forces are visibly played-out through the orchestration of concrete walls, steel columns, and glass canopies.

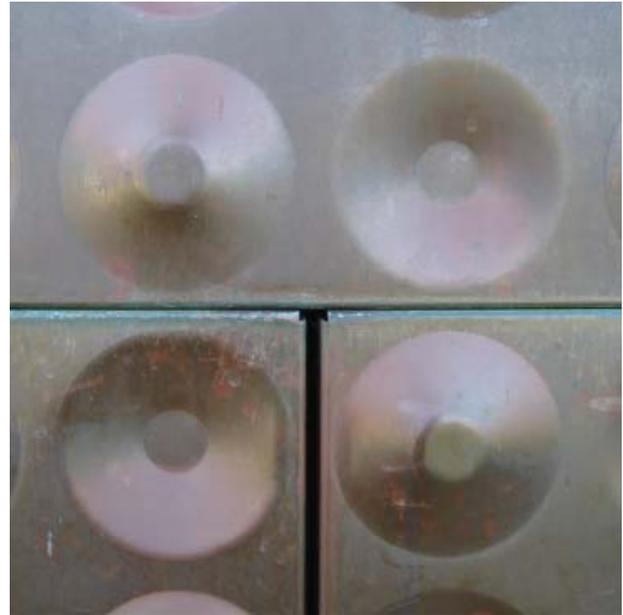


Figure 1. Copper Panel Joint, de Young Museum | Herzog and de Meuron. (Photo by author)



Figure 2. Column and Base Plate Joint, California Academy of Sciences | Renzo Piano. (Photo by author)

Across the plaza at the de Young Museum, Herzog and de Meuron take a different approach; choosing to use a copper panel façade to veil the structure and constructive conditions of the building envelope. By concealing these physical aspects, the mu-

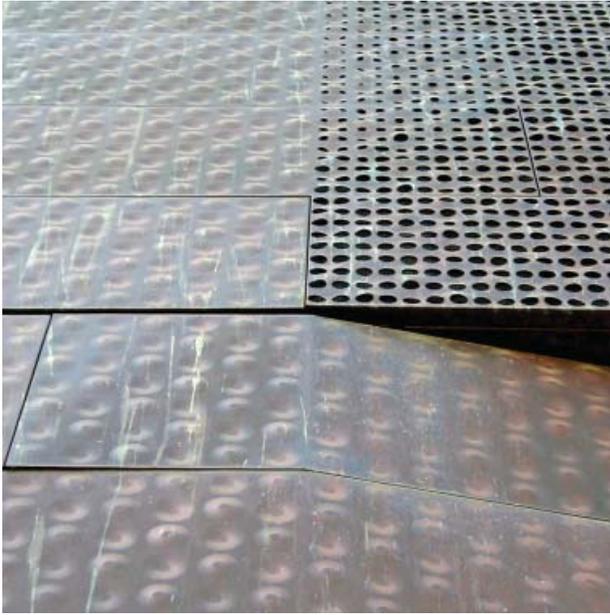


Figure 3. Copper Wall Panels, de Young Museum | Herzog and de Meuron. (Photo by author)

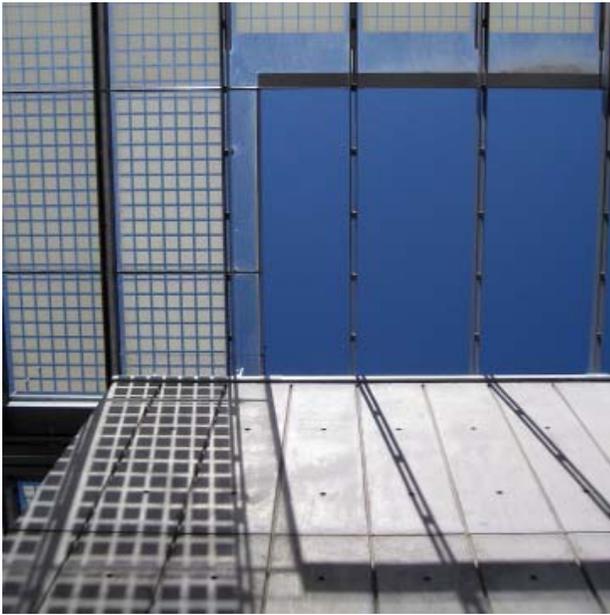


Figure 4. Wall and Roof Canopy, California Academy of Sciences | Renzo Piano. (Photo by author)

seum's form with its twisting tower, assertive roof cantilever and expansive facade is accentuated through the guise of the panels. The joints of these panels are kept tight to create a uniform skin.<sup>6</sup>

While these architects approach the articulation of the detail from different points of view, both building envelopes generate similar qualities and textures of light and shadow. What Herzog and de Meuron generate through the copper panel façade, Piano accomplishes through the choreography of column, wall, canopy structure and glazing system (figures 3 and 4).

The realization of the detail is reliant on the architect's ability to draw it out; following the detail through to its appropriate resolution, cognizant of its making, presence and implications at all scales of the buildings manifestation.

"The art of detailing," writes Frascari,

"is really the joining of materials, elements, components, and building parts in a functional and aesthetic manner. The complexity of this art of joining is such that a detail performing satisfactorily in one building may fail in another for very subtle reasons."<sup>7</sup>

Detailing seen in the larger context that Frascari presents is the architect's crafting of the details at all scales. Materials, assemblies, rooms, buildings, and the city are all part of the architect's understanding of the detail; the circumstantial relationship of part to whole and whole to part in its constructive, formal, and spatial realization.

This sensitivity to the detail and detailing is also rooted in the architect's immersion into the knowledge and understanding of the constructive realities at play within the work. Duvall Decker Architects, whose practice is based in Jackson, Mississippi, write "To build well in this area of Mississippi, we have become intense students of construction systems means and methods."<sup>8</sup> Duvall Decker recognize that the architect is typically not directly involved with the actual physical construction, yet must be technically savvy and well-versed in the specification of materials and detailing of building assemblies. Through drawings and specifications, the architect must be able to convey and communicate the intentions and qualities of their buildings to the contractors in the field. This attention to and execution of the details during construction is not always easily achieved. The reliance on those workers responsible for constructing the building to read the drawings with an eye for the craft of the detail is more often than not difficult to find and can at times be cost prohibitive. This may help

to explain Koolhaas's indifference to the detail and detailing within his own work. For Duvall Decker they take a more empathetic approach:

"...we have become teachers of basic construction skills. This is a precarious position practically and legally. We do not have the hands-on knowledge to demonstrate construction practice; nevertheless, we must teach masons and carpenters how to be masons and carpenters. Our hope is maintained through the laborer's desire and perseverance we have encountered over the years. Although many laborers, managers, and foremen come to the project ill-trained, most show a desire and ability to rise to the challenges of the project. If we know enough about the system to explain how and why it should work as it does, they become students and later teachers of a newly acquired skill. They become proud of their work and of building."<sup>9</sup>

### THE CONSTRUCTION SITE

The construction site is a test of the architect's will; where the detail and detailing is ultimately realized. This is why I enjoy visiting them. Found are a dynamic array of constructive moments and activities playing out: the excavation of earth, building of foundations, erecting of structures, and enclosing of rooms. When I am at these sites, I try to imagine and envision the type of drawings and models the architect used in the development of the work. Did they use digital tools? Were physical models constructed? What role did the hand play in the work's development? How did these ways of working inform the work? In addition to these questions and speculations, I study the physical construction trying to understand the decisions and judgments the architect is making about the work. What materials were selected, how are they being assembled, are the building's constructive realities being expressed or concealed, and, ultimately, how are all these elements being brought together and joined to make architectural space?

As the construction site transforms from stacks, piles, and pallets of building material into constructed works, I keep my eye on the details. For embedded in these architectural details are not just the technical and performative needs and conditions of the building, but a position an architect is taking regarding the joining of the constructive, spatial, and formal qualities and conditions that lead to architecture.

I reference the construction site because I believe that the architect's vision and imagination cannot be separated from the physical and constructive

realities present within works of architecture. That is, at some point if the architectural vision is to be realized it will have to be constructed; transformed and translated from paper, graphite lines, pixels, vectors, 0 and 1's into constructed assemblies that form the floors, walls, ceilings, and roofs that make architectural space. The joining of building materials must take place for these elements to function and for architecture to exist.

With new digital programs and fabrication tools available, building materials can now be shaped and cut with a speed, precision and accuracy that was once not possible or cost effective. Yet with this technology it still doesn't fully address the architectural detail; that is the joining of these materials. Once fabricated the formed material still has to deal with the issues of being transported, assembled, placed, joined, and secured. Construction tolerances have to be taken into consideration that allow for proper alignment and adjustments to bring the work plumb and level. The infinitesimal of the virtual world does not exist on the construction site. Some shimming is required.

Watching the work unfold at a construction site, I notice the workers hands. Even though there are tools, machines and equipment to assist them, there is always the hand to wave, guide, push, and pull the work into place; tighten the bolts, set the studs, and place the bricks. Ultimately the architect's work will be realized by the hands of the construction worker; their actions retracing the charcoal lines of Louis Kahn or mimicking the hand gestures of Frank Gehry shaping his models. It is a shared dance of hand and mind immersed in the act of making.

This is not to dismiss work that is not meant to be built or is speculative in nature. 'Paper' and now 'paperless architecture' when considered as a form of autonomous architectural exploration outside of building has always been a part of the discipline of architecture. This type of work is necessary and has its place in the architects practice. Certainly in these realms a position can be taken that "joints just don't matter"<sup>10</sup> and the constructive realities can be bypassed in favor of another agenda.

### LEARNING FROM LOU (A FINAL THOUGHT)

Tending to the detail is to turn our attention back to the making and crafting of works of architecture.

Found in the architectural detail is the embodiment of the architect's knowledge, skill, understanding, and sensitivity to how materials and spaces are thoughtfully formed and brought together. Born of the architect's imagination, the detail is complex and multi-dimensional. Its cultivation is reliant on the continual unfolding dialogue of hand and mind working to reconcile desires with physical and constructive realities. The architectural detail is essential to architecture.

As the question of the architectural detail is considered, it might be helpful to return to the words of Louis Kahn:

"A great building, in my opinion, must begin with the unmeasurable, must go through measurable means when it is being designed, and in the end must be unmeasurable. The only way you can build, the only way you can get the building into being, is through the measurable. You must follow the laws of nature and use quantities of brick, methods of construction, and engineering. But in the end, when the building becomes part of living, it evokes unmeasurable qualities, and the spirit of its existence takes over."<sup>11</sup>

## ENDNOTES

- 1 William Mitchell, "Antitectonics: The Poetics of Virtuality," in *The Virtual Dimension: Architecture, Representation, and Crash Culture*, ed. John Beckman (New York: Princeton Architectural Press, 1998), 207.
- 2 Alejandro Zaera Polo, "Finding Freedoms: Conversations with Rem Koolhaas," *El Croquis* 53 (1992), 10.
- 3 Vittorio Gregotti and Lydia G. Cochrane, *Architecture Means and End* (Chicago: University of Chicago Press, 2010), 96.
- 4 Marco Frascari, "The Tell-the-Tale Detail," in *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory, 1965-1995*, ed. Kate Nesbitt (New York: Princeton Architectural Press, 1996), 503.
- 5 Frascari. "The Tell-the-Tale Detail," 500.
- 6 Diana Ketcham, "Designing the New de Young: Herzog & de Meuron," in *the de Young in the 21st century: a museum by Herzog & de Meuron*, (New York: Thames & Hudson, 2005), 101 and 104.
- 7 Frascari. "The Tell-the-Tale Detail," 501.
- 8 Roy T. Decker and Anne Marie Decker Duvall, "Inquiry in Practice and Experience," *Journal of Architectural Education*, v.61, n.1 (Sept. 2007): 97.
- 9 Decker Duvall, "Inquiry in Practice and Experience," 97-98.
- 10 Mitchell, "Antitectonics: The Poetics of Virtuality," 207.
- 11 Louis Kahn, "Architecture," in *Between Silence and Light: Spirit in the Architecture of Louis I. Kahn*, ed. John Lobell (Boston: Shambhala Publications, Inc., 1979), 48.

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