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Regarding Mies’s courtyard houses

Letter to the Editor

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In response to:

[Courtyard houses are a fascinating typology. Mies van der Rohe’s name is often associated with it, but he certainly did not invent the type.] Although many designs for courtyard houses survive, Mies never realised one. Yet the courtyard house type is usually given a place of special importance in his oeuvre. Luciana Fornari Colombo in her study (arq 19.2, pp. 123–32) interrogates the genesis of Mies’s courtyard house designs. This invites additional comments. And taking the courtyard house projects as a starting point I would like to speculate on Mies’s design process and whether it may serve as a model for current practice.

Mies’s courtyard houses

The way we interpret Mies’s courtyard house designs hinges on understanding their original motivation. Were they intended for specific sites and particular clients, or were they polemic experiments in avant-garde architecture? Terence Riley and others asserted that Mies’s courtyard house designs originated with the project for Margaret Hubbe. Colombo, in contrast, champions the independent consideration of a building type, irrespective of site. She links the emergence of the type to Mies’s teaching at the Bauhaus. I prefer to consider a more complex conglomerate of motivations. Likely, favouring one over the other is to short-change the complexity inherent in any design process. To accept the courtyard house projects as ‘less pure’ in origin does not reduce their extraordinary status – on the contrary. We gain insight into Mies’s method of addressing specific problems and recognising within them general responses that, at least in his view, hold bigger architectural truths.

Mies’s courtyard houses are not atrium houses that follow a Roman model. The type, however, must have been familiar to Mies early on, if only through Schinkel’s Roman Baths at Potsdam. It is easy to see the various studies for courtyard houses as part of an evolutionary process that started with Mies’s first independent commission, the Riehl House of 1907, and its close relationship of ground floor plan and garden parterre. Shortly after, Mies travelled to England and visited several Garden City developments. We may only speculate to what degree he took inspiration from their harmonious integration of house and site. When he re-invented his architectural approach after 1921, Mies also inverted previous relationships of house and site. The Country House in Brick asserted full control over its grounds. Mies published the design as a conceptual project. Any indication of an actual site was purged, presumably once the prospect of realisation (either as a house for himself or for an unidentified client) fell through. What stayed with Mies was the concept of controlling nature and providing a new degree of spatial freedom. It found its full realisation in the Barcelona Pavilion, itself a proto-courtyard house. The design upheld a conceptual ambiguity, being at the same time a permeable “filter” and self-contained environment. The exhibition pavilion even provided its own horizon within. Following other realised projects in Krefeld, Stuttgart and Brno, the Lemke House of 1933 is often
considered the only built specimen of a courtyard house by Mies. It went through a number of design iterations. Ultimately, Mies favoured client expectation over conceptual innovation. The relatively modest house with its L-shaped plan held a patio at its centre and opened out to a larger garden. By no means “compromised,” the realised building is a valid document of Mies’s core architectural concerns. At around the same time, Mies's studies for a mountain house were again an assertive response to site that emphasised architecture’s protective qualities. Although no site was identified, the sketches likely related to places familiar to Mies from previous travels.

By the time Mies worked on the Hubbe House commission the conceptual idea of open-plan living contained within perimeter walls has had a long gestation period. The courtyard house studies that followed were part of that lineage. We may, however, look at the Hubbe House project also as a turning point. In order to integrate the house in its “dull” river marsh setting, the house and adjoining terraces were contained within garden walls. The necessity to accommodate additional dwellings in close proximity to the main house prompted a further radicalisation of the idea of a house anchored to its site by walls extending outwards. The iconic group of three courtyard houses achieves complete visual exclusion by means of continuous exterior walls.

**Design method**

The seclusion of the courtyard houses suggests the negation of expansive space as proposed in the country houses in brick and concrete, for example. Yet I prefer to read the courtyard house type as an inversion of those earlier ideas. By containing the site within perimeter walls and thus internalising landscape Mies was indeed able to “articulate space, open it up and connect it to the landscape” in unprecedented ways. The dialectical move of inverting an idea – preserving its conceptual integrity whilst at the same time altering its formal expression – is found repeatedly in Mies's work. The curvilinear envelope of the glass skyscraper with its regularised internal column grid transformed into external columns and the coffered roof plate of the New National Gallery that sheltered a gesture of liberated use within. Other projects played out the ambiguity of what is interior and what exterior even more. The Exhibition House of 1931 – another step towards the courtyard house designs – was the first project to invert interior and exterior. It presented as exterior the interior of the vast exhibition hall the house was set within. In the drawings for the Resor House initially and later in those for the Museum in a Small City the strongest feature of the interior ‘room’ was the landscape seen through absent openings, competing for spatial presence with furniture and, more intensely, with human beings presented as sculpture. Here, the presence of architectural elements was implied only through the absence of collaged ‘reality.’ These collages thus inverted conventions of representation. And by 1942, the Concert Hall collage merged a found ‘landscape,’ actually an aircraft assembly plant, and the proposed ‘room’ (irrespective of its use) within a unified space as a final synthesis of previously disparate entities.

Mies’s designs developed through evolutionary and iterative processes. Iterative design requires repetition. Drawings would be made repeatedly to test variations. Some of Mies’s numerous courtyard house sketches combined plan variations with perspectival views and calculations of floor area. Mies’s sketches were at the same time preliminary and purposeful. These are drawings made for ‘finding out.’ With Mies, design could proceed at different speeds. Mies launched into rapid production once he was certain of his proposition, or when clients demanded action. Impatience on the clients’ side was frequent in the face of Mies’s glacial progress at times. Yet slowness allowed for opportunities to unfold. Interested in the solution to a problem, Mies sought refinement rather than
innovation. Unlike the philosopher Edmund Husserl, whose work Mies discussed with Grete Tugendhat, Mies was not a "perpetual beginner." Continuity mattered. Thinking of the epoch and conscious of long timespans, Mies would keep an idea until he saw an opportunity to put it to work. After all, he was reluctant to "invent a new architecture every Monday morning."

Whether commissioned or self-motivated, whether sited or theoretical, the gradual emergence of the courtyard house type in Mies's oeuvre illustrates a mode of working as well as a way of thinking. Mies presented his buildings as an expression of a solid belief, a design philosophy. However, Mies in his work did not start with general assertions. Projects did not originate in fundamental statements. The Country House in Brick was linked to a site in Potsdam-Neubabelsberg. The Mountain House dwelled on Alpine landscapes. The Concert Hall was based on an actual factory building. Although often categorised as 'conceptual projects' these projects as well as many others started as specific responses to specific problems. Mies did not speculate. He worked with 'facts,' i.e. with the specific circumstances of a problem. He was interested in finding concrete solutions, not in considering abstract concepts. It is Mies’s achievement to recognise within those specific solutions more profound, and enduring, responses to the more general concerns of a building type, a structural principle or a construction system.

**Practice and teaching**

Mies’s focus on finding specific responses to specific problems was also reflected in his professional practice and his approach to architectural education. Mies's authority in his practice was not founded on hierarchy. Instead, as his biographer Ed Windhorst reminded me, his office staff respected Mies because “he always had the better solution.” Having 'the better solution' presupposes a problem-oriented way of working.

As in professional practice, so in architecture school: Mies thought of student assignments as 'problems' to be solved through rigorous and iterative work. This conviction carried over from his years as the last director of the Bauhaus to Mies's new role as director of Armour's architecture programme in Chicago. And following the merger of Armour and Lewis Institutes, two colleges that offered professional courses in science, engineering and liberal arts, the Illinois Institute of Technology remained more committed to professional training than to academic exploration. IIT then was not yet a place of research in the way we understand universities to be today. Mies's curriculum at IIT emphasised the craft of making architecture. It foregrounded rationality and precision while eliminating scope for individual expression. Not surprisingly, Mies would not shy from assigning to students problems that interested him in the context of his professional practice. (In addition to the Museum for a Small City, numerous projects for high-rise and long-span structures may provide examples.) With regards to practice as well as teaching the courtyard houses were a defining project. Far from being just an 'abstract problem,' as Terence Riley suggested, the courtyard house exercises responded to a specific problem and eventually addressed a far more general condition. The role of Ludwig Hilberseimer and the student projects for low-rise high-density housing developments at the Bauhaus deserve further attention in this context. The overlap of student projects and office work gave rise to questions of authorship. This has parallels in Mies’s productive yet asymmetrical working relationship with Lilly Reich and others, and it points towards a mode of working that was distinct and central to Mies’s career. Frank Lloyd Wright championed an apprenticeship model at Taliesin, where school and office effectively merged into one. Walter Gropius was an outspoken advocate of

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1 Edward Windhorst, personal conversation, 28 April 2015
“teamwork.” Albert Kahn had adopted a hierarchically structured management model and transformed the architect’s office into an efficiently streamlined “organisation.” Later, Louis Kahn would return to a studio model for both practice and teaching. Mies in turn relied on a group of younger collaborators or students to test different approaches and to produce preliminary versions before he would settle on a particular idea. Once found, Mies refined the solution by repeating a similar process with much narrower constraints until satisfied.

This collaborative interrogation of a design problem constituted a dialogue of sorts. The atelier (in contrast to the streamlined business office) and the design studio allow for such dialogue, either with collaborators or students. This mode of working involves a constant ‘give and take,’ an exchange that makes it ultimately impossible to distinguish who made which contribution. As the instigator of such dialogue at IIT Mies claimed the results as his.

This kind of searching dialogue has to remain open-ended, thus avoiding foregone conclusions. It requires alertness to possibilities that may emerge in the process. Through the creative nature of the dialogue, and through the specific pedagogy of the design studio as set by a teacher or group of teachers, multiple opportunities for innovations in the thinking of and approach to context and technology, space and society are generated.

Research through design
We can interpret the studies for various courtyard houses as iterations of the same problem and hence as an example for patient research. Indeed, Colombo placed Mies’s work on this house type in the context of “research through design.” It may not surprise to find this label affixed to a study firmly rooted in the field of architectural history. After all, architects – and scholars – today are under immense pressure to defend the value of architectural inquiry. Research recognises the creative leap from established facts to new concepts. To architects it is self-evident that design produces insight and advances disciplinary knowledge. Insight is communicated through drawings, models and prototypes as well as realised buildings. In an on-going debate architects persistently argue that they are well trained in reading intention from design documents and vice versa that they are well able to express conceptual ideas through media other than writing.

It is of course most instructive to regard research through design – as undertaken by Mies, his colleagues at IIT and architects in general – as embedded in teaching. Design research in all its facets is not new to architecture, neither in practice nor in education. Well before Christopher Frayling, and coincidentally parallel to Mies’s courtyard house exercises at IIT, Herbert Read introduced the idea of research for art, into art and through art.²

Research in architecture is inevitably tied to the concrete problems of a particular building: its site and programme, construction technology and budget, etc. “Research springs from the midst of things,” as David Leatherbarrow remarked, and further, “the practice of design research is at once dialogical and individual, participatory and personal.”³ Le Corbusier summarised his work as “patient research,” and described his atelier as the place to do it. Mies thought of his work as a disciplined effort to overcome the “unholy confusion” of his time. His research interests were not academic. Instead, Mies’s studio research was design-centred and problem-driven. Later generations would reject the ties to specific problems and take up much more speculative research. That liberty of research – to pursue investigations independent of possible application – must firmly stand at the core of any

² Herbert Read, Education through Art, 1943
³ David Leatherbarrow, keynote address, All-Ireland Architecture Research Conference, Limerick, 25 January 2013
university’s ethos. Nevertheless, Mies’s practice, his teaching and the sustained exchange between both remain a model for research through design today.

**MoMA exhibition 1947**

Mies exhibited sketches, drawings and models for the courtyard houses, including those made by IIT students, many years after the idea was initially conceived. The first Mies exhibition at the Museum of Modern Art in 1947 “canonized” the courtyard house projects. The related monograph by Philip Johnson and subsequent exhibitions relied by and large on the same material. Mies had left most of his office records including design documents in the care of Lilly Reich when he left Germany almost a decade earlier. They had been safely hidden away but remained out of reach. Except for some good photographs, Mies had little to show in America. He had not yet found clients to commission new work. The Resor House, although carefully worked out, did not get built. The Farnsworth House was yet a promise, not reality. Construction at the IIT campus had started, but it was unlikely to attract the attention of the (wealthy) private and corporate clients Mies was most interested in. Against this background we can understand the decision to re-work the courtyard houses and include them in the exhibition as an attempt to cover an additional segment of the market and as an offering to both private clients and commercial developers.

Whereas MoMA’s authoritative exhibition on the Bauhaus of 1938 firmly tied Gropius’ American reputation to his past achievements at the Bauhaus, the Mies exhibition of 1947 was not a retrospective of his career. Instead, it was the calling card of an emerging player on the architectural scene of post-war America. It was also a showroom where exclusive furnishings merged with images of elite interiors. Royalties for his furniture designs had provided Mies with a steady income and funded much of the Bauhaus operation in its concluding Berlin period. Mies may have hoped to see this stream of income revived, as in fact it did in the following years. I think of the MoMA exhibition not as a résumé of past work but as a catalogue of future projects – city centre skyscrapers, corporate headquarters, cultural institutions and remote weekend houses. The emphasis was not on what Mies had done but on what he had to offer. The exhibition laid out the breadth of Mies’s work with an aspiration to attract a new client base. Yet one segment in his design portfolio did not appeal to prospective clients. By the late 1940s the suburbanisation of America had taken a distinct direction. Emergent consumerism and land-rich developers building for veterans with subsidised mortgages won the day over austere housing schemes. In the context of parkways and Levittown the courtyard house as a model for high-density low-rise developments was obsolete. Although it survived as a training exercise in the architecture curriculum at IIT, Mies himself did not pursue the idea further – except for Lafayette Park in Detroit, and there only in conjunction with high-rise apartment blocks.

I wonder: Had post-war residential development in America taken to a different, less sprawling model, would have the courtyard house idea established itself more strongly within our current repertoire of housing types?

Certainly, the courtyard house by no means disappeared. Often when societies were under pressure to balance individual aspiration with cultural circumstance architects turned to courtyard house typologies – Jørn Utzon in Denmark and Eduardo Souto de Moura in Portugal may serve as prominent examples. Courtyard houses are a long established typology with earliest examples in the Jordan valley, in ancient China and Greece as well as in Inca settlements. It is a widespread typology that travelled with the people who once lived in it. It successfully combines a protected private realm with a commitment to a shared
ideal of community. In a time of mass migration it may well become the typology with the strongest potential to integrate different populations and divergent concepts of society.

Author
Jan Frohburg is an architect and lectures at the recently established School of Architecture in Limerick. He studied architecture in Weimar, London, Zurich, and Chicago and has practiced as an architect. He previously taught in Germany as well as the United States. His research interests include design education and the spatial expression of modernity, focusing on spatial concepts characteristic to the work of Mies van der Rohe.