The 1:1 Architectural Model as Performance and Double

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ABSTRACT

Generally, the architectural model is thought of as an expression of material exploration and experimentation, utopian ideas and speculative construction. Together with drawing, the model is the designer's main communication tool, and typically, the scaled-down model invites the viewer to look but forbids entry. The space that the scaled-down model suggests through abstraction and representation cannot be 'felt' (Merleau-Ponty), the full scale inhabitable model on the other hand elicits affective responses. And while the 'space physicality' (Husserl) of the 1:1 model remains a simulation, its potential for inhabitation makes it a temporary 'home' and the model space a strategically staged interior. The 1:1 model asks from the viewer to become a co-actor in the making of the model space, in the process completing a site-specific performative environment where exteriority and visuality are no longer privileged over interiority and haptic sense. This paper interrogates the 1:1 model as a *performance of inhabitation* and looks at the role of the full scale model in architecture exhibitions, ranging from Mies van der Rohe's 1927 and 1931 exhibitions, *The Dwelling* and *The Dwelling of Our Time* respectively to contemporary examples.

Key Words: architectural model, architectural doppelganger, exhibition, interior

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> *We have tried very hard to learn that external things are not as they appear to us--well, then! The same applies to the inner world!* (Nietzsche, n.d: 116)

This paper expands the authors' ongoing investigation into the phenomenon of the *architectural doppelganger from the perspective of site rather than subject*, focusing on the architectural model as performance, and arguing through close readings, that the relationship between the model and its realised sibling is a performative one, one that creates an event (Brejzek and Wallen, 2013).

Our research explores such architecture or spaces that shows themselves in more than one place and includes structures that have been built at different times and urban spaces observed over extended time periods. This specific field of observation and analysis comprises an expansion of the notion of the architectural doppelganger as one of 'original and copy' and rather suggests that the double is very rarely an identical twin or 'faithful' reconstruction but is much more likely to present as an uncanny construction, realised across several sites, in diverse scales and temporalities. With this recognition, it is the differences rather than the similarities between the objects that elicit critical analysis and contribute

to the evolving definition of the *architectural doppelganger.* If the doppelganger, as is suggested by the meaning of the word in the German original, really does 'walk' (German: *gehen*) and if this walk is 'doubled' (German: *doppelt*), the phenomenon of the doppelganger might be considered to describe an activity. A close reading of the architectural doppelganger therefore must include an overall discussion of the architectural model as a practice of making and representation and further interrogate the relationship between model and building, a relationship that is, as is the doppelganger, always 'self' and 'other', possessing material identity as well as representing conceptual processes at the same time.

> Today abstraction is no longer that of the map, the double, the mirror, or the concept.
> Simulation is no longer that of a territory, a referential being, or a substance. It is the
> generation by models of a real without origin or reality: a hyperreal (Baudiliard, n.d: 2).

As an expression of material exploration and experimentation, utopian ideals and speculative construction, the architectural model continues to occupy a critical role in the development of spatial ideas across a range of disciplines including stage design, exhibition design, interior design, installation art and architecture, yet the model has long led a shadow existence in spatial discourse.

The model makes an appearance in two distinct phases of the design process, the first being the conceptual development phase where the model is used to generate form, resolve issues of materiality and give physical manifestation to conceptual and programmatic ideas. In this phase of model making, a non-linear dialogue exists between the emerging artefact and the emerging idea, constituting an iterative and incremental self-referential method of continuous refinement. The outcome, or: outcomes of this phase are generally referred to as (a) **process model**(s). In a second, more stable phase, the model is constructed and used as the representation of a completed design, either to communicate a proposed scheme or to exhibit an existing structure. In this case, the dialogue occurs between the model and that what it represents in past or future and it is commonly referred to as a **representative model.**

Intertwined with the creation of the *process model* is the art of drawing for it is through both drawing (and, initially, sketching) and model making techniques that almost all contemporary design finds form. Intriguingly, but a topic of a separate discussion, this observation holds true for both analogue and digital models. While the argument that *drawing is thinking* is well advanced,

> The hand is the instrument of instruments' wrote Aristotle in De Anima 3.8, arguing that the hand is
> both the most intimate, as well as the most complex instrument, to master. The hand can, however,
> be also regarded as the instrument that most directly communicates with the viewer (Brejzek and
> Wallen, 2014).

it is less developed for the relationship between model making and thinking. This paper argues that the dynamic interplay between two-dimensional sketching and drawing and the three-dimensional process of modelling is a highly articulated form of spatial thinking that arises between the acts of developing and describing form through drawing and that of the carving out of a space.

The model that is characteristic of spatial design practices evolves during the intense period of design or creative development and has at its beginning objects that may have no scale, function or possibility of realisation through to objects that are precisely scaled, functional, engineered and 'life like'. With the designer's developmental shift from the process model to the increasingly resolved representational, the issue of scale increases in importance, coming to a point in a decision for any possible scale between the *finescale miniature* and the *life size model*, informed not only from a pragmatic perspective but also from an emotional and theoretical positioning. The space that the scaled-down model suggests

through abstraction and representation cannot be 'felt' (Merleau-Ponty) whereas the full-scale model on the other hand elicits affective responses. And while the 'space physicality' (Husserl) of the 1:1 model remains a simulation, or, with Baudrillard, a *hyperreal,* its potential for inhabitation makes it a temporary 'home' and the model space becomes a strategically staged interior. The 1:1 model asks from the viewer to become a co-actor in the making of the (model) space, in the process completing a site-specific performative environment where exteriority and visuality are no longer privileged over interiority and haptic sense.

> *Rather than seeing model and reality as polarized modes, they now function on the same level. Models have become co-producers of reality.*
>
> *Olafur Eliasson, Models are Real: 20.*

Life-size or 1:1 architectural models in exhibition have long been associated with an increased visitor engagement and, indeed, with a direct experience of architecture, thus shifting the architecture exhibition from a space of observation toward a 'practised space' activated by the visitor's behaviour (de Certeau, 1984). In 1927, Mies van der Rohe and interior designer Lilly Reich conceptualized and designed part of the Werkbund exhibition *Die Wohnung (The Dwelling)* in Stuttgart as inhabitable interiors ("Die Wohnung", 1927) . Fragments of future buildings were constructed in the Central Exhibition Hall, complete with furnishings and, described in a 1927 review as 'tasteful provisory buildings', the scaled building fragments were to perform the new way of living, made easier and more efficient through the use of mass-produced lighting, heating systems and kitchens and shown in a staging of the future of daily life rather than in a mere mode of a display of desirable objects (Schmidt, 1927). The exhibition was favourably received at the time, and understood as a direct and tangible answer to the question the exhibition poster posed: "Wie wohnen? (How to Live?)' with the fragmentary, inhabited interiors shifting the future of housing and living persuasively closer to reality. Mies and Reich continued and expanded their exhibition practice with the 1931 *Die Wohnung unserer Zeit (The Dwelling of our Time)* in Berlin as part of the *Deutsche Bauausstellung (German Building Exhibition)* in the exhibition hall II of the overall trade fair. Within the hall they constructed 23 living units, amongst them, clearly reflecting the overall mood in the middle of the economic crisis that was strangling Europe at the time, a 'dwelling for the minimum existence', as well as a 'spatial program for the family of an intellectual worker', a 'house for a sportsperson' and the 'house for a childless family' (Tegethoff, 1981). While the exhibition was criticized heavily for advocating an impoverished way of living in an already impoverished economic climate, statements such as that by Wilhelm Lotz from 1931 show that Mies's intention to create an exhibition as a site of experience and discovery was successful in pointing to a different future, one freed from the plush and burden of representation of the 19th century towards a hopeful future.

> *It is important and significant, that such beautiful things as these residential houses with open spaces and their lively connection between interior space and outside space have been created by a hand, driven by an artistic and innovative sense. Here, one likes to breathe, here one feels that there are still powers that have the courage to think freely and unhindered into the future* (Lotz, 1931).

In the 1931 exhibition, and in a surprisingly innovative and theatrical approach, actors were employed to sit in the chairs, smoking a pipe and walking around, thus turning the exhibition artefact into a stage. Rather than showing abstraction in an abstracted mode of representation, through scaled models, plans and drawings, Mies, in close collaboration with Lilly Reich created a fragmentary double of the future to come, as a unified entity of building, interior and furniture.

Thirteen years earlier, in 1914, the other great modernist, Le Corbusier had begun to develop a building system that was to enable the mass production of housing, called the *Dom-ino House*. As an open floor

plan structure, elements could be combined and multiplied both horizontally and vertically. While the original Dom-ino House developed through drawings, was never constructed, the open floor plan structure with a free interior was to influence Le Corbusier's spatial language immensely. One hundred years later, in 2014, on the lawns of the Giardini directly outside the Venice Architectural Biennale's Central Pavilion, *Fundamentals,* Le Corbusier's building system was translated into an abstracted 1:1 model.

Fig 1. Maison Dom-ino, Venice Architectural Biennale 2014. Source: Valentin Bontjes van Beek

In this *life size model*, realised by Dutch architect Valentin Bontjes van Beek with students from the Architectural Association in London, a twentieth century icon of modernist rational architecure is reinterpreted through the shift of scale and materiality originaly concieved of in concrete in Venice concrete is replaced by engineered wood.

In the context of curator Rem Koolhaas's overarching thematic for the 2014 architecure Biennale, *Fundamentals, understood as both a focus on the* construction elements of architecture and on modernism's legacy spanning 1914-2014, the *Dom-ino* house relates to the enduring influence early modernism's desire for an urbanistic master plan through modularity and a material exploration that would enable mass construction has had on the shaping of our cities until today. With the nearby French pavillon's theme, *Modernism, Promise or Menace*?, a spatial discourse is opened up between Prouvet's anonymous Parisian satellite city and the singular structure of the Dom-ino as a playhouse, a site for inhabitation and interaction.

Le Corbusier's *Dom-ino* house is not a complete building but rather a system, stripped of external or internal walls, windows or any other form of *fitout,* that had been devised as both a rational building system in response to a period where much of Europes housing stock has been depleted by the first world war, and a structure without loadbearing walls allowing for the free placement of internal/external walls, facilitating Le Corbusier's planning ideology of *plan libre*.

On the lawn of the *Giardini* in Venice, Le Corbusier's iconic *Dom-ino* House prototype at a scale of 1:1 is seen like it has never been seen before. While the Dom-ino maybe one of the most recognised symbols of twentieth century architecture it has, previously to only been known through Le Corbusier's original 1914 drawings and possibly, by means of the architects wide-ranging influence, through actual

buildings one may have visited.

Van Beek's 2014 *Maison Dom-ino* is not a reconstruction but rather a spatial re-enactment, a practice adapted from performance art, an ephemeral practice that can only be remembered through audio-visual documentation or the live presentation, possibly in a different location and with a different performer. The Venetian 2014 re-enactment brings to the fore what Eliasson, through a phenomenological and relational reading, calls the 'reality' of the model as practised space – the model as performance. For the visitor of the new temporary Maison Dom-ino without walls, the experience is of a *double walking* in an *architectural Doppelganger space.* Provoked by the reference to Le Corbusier's system of spatial relations, the visitor walks at the same time through the actual space and simultaneously relates this space back to his previous mental navigations through the architect's drawings.

The Biennale visitor temporarily inhabits what appears to be the skeleton of a building only, and though a spatial experience is anticipated, such experience remains locked in the conceptual frame of an inner projection of the finished building. Evoked by the familiarity with the 1:1 model, the 2014 *Maison Dom-ino* evokes an uncanny architectural *déjà vu* or *source memory*.

The change of materiality from Le Corbusier's envisaged reinforced concrete to the Biennale's timber replaces any notion of the building's permanence with that of a temporary demountable installation. Indeed, the Venice model arrived in the Giardini in Ikea style flat-packs and will be shipped for future displays in London and Tokyo once the Biennale ends. The structure's lightness and immateriality adds to the success of van de Beek's project in suggesting but neither realising nor replacing the 1914 plans but rather by inferring that earlier, planned but unbuilt project. As an architectural double, the re-enacted *Maison Dom-ino* relates to and infers its unseen 1914 architectural other.

> The miniature does not attach itself to lived historical time. The reduction in scale which the miniature presents skews the time and space relations of the everyday life world [...] the miniature creates an "other" time (Stewart, 1984).

Fig.2. Model, Henan Provincial Museum
Source: Prof. Dr. Gary L. Todd

The unseen double from another time is further explored in the example of a 192 cm ceramic model from the Chinese Eastern-Han Dynasty (25–220 CE) of a house, watchtower and enclosed bridge that is

currently displayed in the Henan Provincial Museum in Zhengzhou, China. Here, the model has survived while the actual building has been lost. The viewer in the museum is locked in the uncanny relationship between the finescale artefact itself and what it represents. Unlike in the example of the re-enactment of Le Corbusier's *Dom-ino* in 2014 Venice, the authors have no prior knowledge of this building type, which arguably remains outside of their Eurocentric collective spatial consciousness, or source memory. The model is intriguing as it speaks in two directions: firstly, it relates back to the excavation site and to the uncovered historical layering of what can often be urban doubles, structures and towns built upon the remains of the previous ones. Such architectural doppelgangers exist across time, and their dialogue is one of a temporal and layered materiality of one layer on top of the other, complicated with the prevalent reuse of materials over and over again through the different built stratas.

The second direction relates to what the excavated artefact infers: it allows the viewer to construct a seemingly real historic Chinese manor house even though we have no evidence of its actual existence. This 2m high-detailed ceramic model may have been merely the Chinese equivalent of the European dolls house where the model provides but a structure for a child's imagination within specific cultural constraints. However, not knowing the model's origin does not diminish the power of this artefact as invariably the model sets up specific dialogues between materiality, scale and symbolic representation, languages that in this case remain indeterminate and beyond our reach to decipher. Inconclusive, the Henan Model sets up an inherently performative and infinite loop between visitor, object and space.

> *Large issues from small...thanks to liberation from all obligations of dimensions, a liberation that is a special characteristic of the activity of the imagination* (Bachelard, 1994: 154).
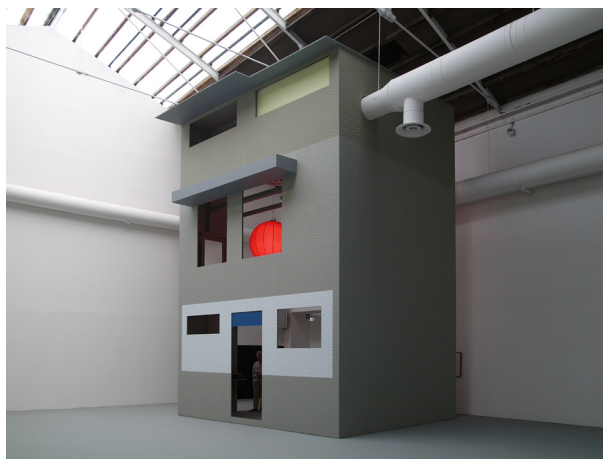
Fig. 3. Caruso St John Architects and Thomas Demand's model of the Zurich *Nagelhaus*, Venice Biennale 2010.
Source: Caruso St John Architects

Caruso St John Architects and German visual artist Thomas Demand's model of the Zurich *Nagelhaus* (Nail House), (Fig #3) is a different double yet again, the abstracted model of a demolished iconic original that had been built on another site and at a different time (Fig #4).

This collaboration between the artist and the architect became, when exhibited at the Venice Architecture Biennial 2010 as a full-scale temporary construction, the 'artificial memory of an event twice removed'

(Caruso St. John Architect, n.d). Having won First Prize in the City of Zurich 2007 competition for the revitalisation of a former industrial area in Zurich-West, the *Nagelhaus* was modelled on a residence in China's Chongqing that resisted demolition through developers for several years and as a result stood alone in the centre of an enormous building site pit, cut off from water and electricity. Its image had circulated in the international press (Fig. 4) and thus come to the attention of the collaborators.

Fig. 4. Nail house, Chongqing , China
Source: Wikepedia Commons

Their design was to encompass two buildings, small in scale and unusually modest in the framework of the wealthy city of Zurich. Constructed from prefabricated and painted timber, 24h kiosk and restaurant were in fact to look, if not temporary, then definitely similar to the slightly eerie scaled paper models by Demand that had become synonymous with his name. Fuelled by a populist media campaign and outraged by the proposed cost, the residents of Zurich voted against the project and, as happens so often in the history of architecture competitions, the First Prize was never built.

It was perhaps the pure theatricality of the nail house sitting on a ten metre high mound in the middle of a busy construction site that inspired Caruso St John and Demand to propose rebuilding the Chinese built symbol of resistance against accelerated property development in a design competition. Realized in full scale at the Biennale's main Exposition Pavilion, however, the Nagelhaus retained a central feature of the proposed original: at the Zurich site, Escher-Wyss-Platz, the two structures would have just fitted in height underneath the underpass overhead, thus indicating a dwarfing of the built structure by the demands of progress and mobility. Equally at the Biennale, the structure seems to duck underneath the ceiling of the *Palazzo dell' Esposizione*. The two structures both in plan and realisation deliberately look *out of place* and, additionally to scale and material, suggest a *foreign* origin, with Chinese red lanterns decorating the restaurant. Similar to the re-enacted *Maison Dom ino,* the 1:1 model of the Nailhouse while not fully resolved or detailed can be entered into. The missing walls of van de Beek's performative re-enactment resound with the interior of the Venice nailhouse that was made to look like a theatre backdrop with wooden bracing throughout, emphasizing the scenographic quality of the 'fake'.

The case studies introduced here to help interrogate the role of the 1:1 model as contributing to both a critical and relational practices of space differ greatly in their time and purpose of production. The re-enacted *Maison Dom-ino* from Corbusier's System B enables at first sight just a temporary performance of inhabitation, yet at the same time the experience of the structure connects the visitor back to what

psychologists call the source memory, which in this case was the first visual encounter with the architect's original drawings from 1914. The Henan example where the ancient model has survived, yet there is no building to relate the model to opens up the miniature of the model towards a world of imagination as the viewer invariably attempts to connect the model with a possible building. Finally, Caruso St John's and Demand's model 'twice removed', once from a real building with its own specific narrative, the demolished Chinese nailhouse and the second time from the failed Zurich architecture competition, is both doppelganger and performance. All of the above architectural models operate as an end product in themselves, rather than as a step toward a final design. While it is impossible to date the mysterious Henan model as to a precursor, as a parallel object or as a model taken from a built structure and scaled down, it must be understood as an independent material statement, simply because archaeological findings could as yet shed no light as to its context.

The 2014 *Maison Dom-ino* however, as much as Caruso St John's and Demand's 1:1 model of the *Nailhouse*, equally unbuilt (in Zurich) and demolished (in China), constructed and exhibited within an arts context, imply beyond their materiality, the inscription of time, both past and present. *Maison Dom-ino* points back to Le Corbusier's 1914 plans to revolutionize the disastrous post world war I European housing situation with a blueprint for modularity and mass production, a vision that remains highly influential today. In the present time of the Venice Biennale 2014, the 1:1 model acts as a stage for the visitors. The active inhabitation of the model is encouraged, with stairs to climb, platforms to cross and, as the recently added pictogram suggests, time spent to linger, to sit down, and to read. The visitor's temporary inhabitation activates the model and shifts its immediate purpose to one defined not by distant contemplation, but rather by the immediacy, the liveness and the 'here and now' of performance. In scenographic terms, structure (environment and stage) and visitors (performers) are engaged in the co-producing of space. The space incessantly authored here is a performative space, shifting, permeable and dynamic, unstable even as its purpose, or: program remains unclear. Such *making of space* is mirrored in Caruso St John's and Demand's Venice *Nailhouse* and its scenographic relation is even more transparent due to its method of construction. Unlike the Venetian *Dom-ino,* the *Nailhouse* is built like a classical theatre scenery (coulisse) with front and sides fully articulated, its interior however revealing its temporary and non-functional character. As an enterable scenography, the *Nailhouse* welcomes its visitors as actors, invited to perform the roles of the Zurich commuters who would have entered and exited the *Nailhouse* kiosk, amenities and restaurant 24 hours a day. As performance and double, both 1:1 models shift the notion of the architectural model from one of representation and functionality to one of activation and co-authorship of space. The abstraction and restraint of the 1:1 model takes it outside a conventional theatre context where illusion and make-belief govern the design and materiality of the scenic elements. Instead, theatrical conventions are unmasked and questioned not unlike Bertolt Brecht's V-effect, the alienation effect, achieved by temporary tiered stage constructions and the dissection of the illusion machine of the stage in full view. And while the Henan House operates in a traditional exhibition context as a preciously preserved artefact, the *Nailhouse*, the 2014 *Maison Dom-ino* as well as their precedents from the first decades of the 20th century, Mies's and Lilly Reich's 1927 and 1931 exhibitions, *The Dwelling* and *The Dwelling of our Time* respectively, continue to redefine the exhibition of architecture as inhabitable sites and as performances of inhabitation through the use of the 1:1 model.

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[PREFACE]

Over the past decade, interest towards interiority has increased considerably due to vast development on the subject and how it responds the interdependencies of body and space culturally. Interiority offers potential approach in dealing with the needs of saving resources and subsequently affect the sustainability of its design. Understanding of user and space in local and global context becomes essential in this subject and its connection towards interior architecture. This circumstance provides an urgency to encourage discourse and knowledge in the understanding of interiority and interior architecture.

Interiority in architecture is not limited to the concept of insidedness. It is related to all of the elements that affect human's life quality. Current thoughts on interiority as the core of interior architecture has not been fully addresed in practice and pedagogy. Further discourse of comprehensive practice, knowledge and methodology on interiority becomes a significant potential to be developed.

Exploration on interiority offers opportunities to gain insights on the body engagement in space, and how it may be approached through professional practice and pedagogy in the field of interior architecture.

Current discourse on interiority and interior architecture has called for a comprehensive investigation on interrelationship between local values, identity and how interior architecture posseses responsibilities to address those issues within the society. Such discourse is necessary to ensure knowledge sharing and to bring together creative ideas and future visions of interiority.

This proceedings contains papers from [in]arch International Conference on Interiority and Interior Architecture organised by Department of Architecture, Universitas Indonesia. The conference provides opportunity for not only reinterpreting and developing knowledge, methods and creativity in interiority, but also becoming an attempt to understand the potential agencies and collaboration in interior architecture design. This conference becomes a medium of dialog among international scholars and practitioners to discuss interiority and interior architecture through interdependent perspectives of practice and pedagogy.

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