Drawing and Visualisation Research

MINIATURE FICTIONS

Julian Rennie [a]

[a] School of Architecture, Unitec, Private Bag 92025 Auckland, New Zealand 1141.
jrennie@unitec.ac.nz

Scale design models continue to be made by many professional architects and architectural students. With the miniaturization of digital cameras it is now possible to place the camera inside such a model and take digital photos from the interior looking out. These architectural design models react in the same way to natural sunlight, as do the built buildings they hope to represent, the resulting images can be very revealing for the designer and/or client. In fact, with the removal of scale devices, (such as miniature furniture), the photographic images have the appearance of being true, a verisimilitude. However they are a 'fiction,' they remain representations. But these rather compelling renditions can perhaps start to talk to the designer and the client's imagination, even allowing one to dream about how it might be like to dwell in such spaces, should they go on to be built. This technique was trialled as a case study within Unitec, New Zealand and this paper showcases the results of these experiments. The paper explores the results against the broader historical and theoretical backdrop, citing links within the writings of a wide range of authors and practitioners to contextualise this more sensuous approach to the rendering of architectural spaces.
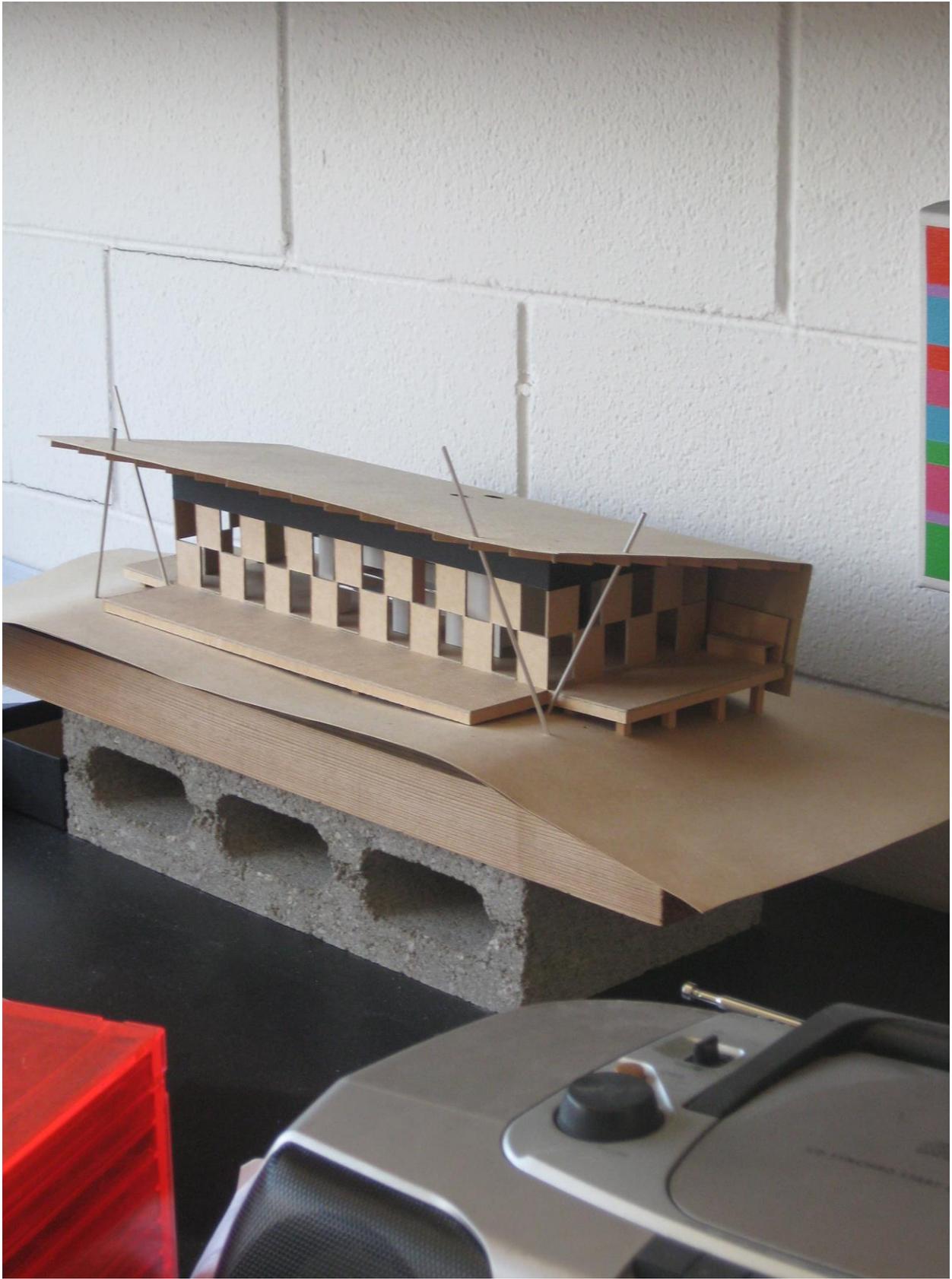
FIGURE 1. STARTER HOUSE MODEL, PHOTO BY AUTHOR.

FIGURE 2. INTERIOR VIEW, PHOTO BY AUTHOR.

FIGURE 3. INTERIOR VIEW, PHOTO BY AUTHOR.

INTRODUCTION

Within the Architectural process of designing spaces that we go on to later inhabit, (should they get built), lies the large area of 'representation' and 'rendering of images.' The mood or character of proposed space is paramount to the architect, and also the resulting way of presenting this 'image' to the client is at the crux of the design process. It is often the 'make or break' of the project. Clients, as we know, may not know exactly what they want, (when engaging an Architect), but they know what they 'don't want' when presented with proposed renderings. To the extent that they cannot see themselves dwelling in such or simply do not like the feeling or atmosphere of the proposal.

This paper outlines, explores and analyses a relatively simple, (and cost effective), method of producing representations of proposed spaces for the professional architect and architectural student alike. The resulting photographic images can often be compelling, so much so they can be life-like, yet they remain a 'fiction,' mainly because they are uninhabitable.   Can this type of three-dimensional rendering and two-dimensional representation be another tool for architects in their armoury in creating a more poetic and sensuous approach to the rendering of architectural space?

BACKGROUND

Prior to the current mode of computer driven rendering, (both computer aided drafting, (CAD) and virtual imaging), architects drew. They made use of long established technique linking the brain / hand / pencil in coordination which in turn distilled images from impulses in the pencil holder's mind. Traditionally the architect has therefore externalised his/her design intentions via drawings. Architects learn early on in their education how to produce horizontal sections through their design, (called Plans), and Sections themselves which are vertically cut view-ports through the proposed spaces and building fabric. These Plans and Section type drawings are two-dimensional, made through the use of line-work, (sometimes shadows are be added to evoke three-dimensions). Such 2D drawings are relatively fast to make; and to modify, usually by iterations of 'trace overs.' Such tracings via the use of transparent tracing paper, allow the design to evolve until it is 'felt' to have come to some sort of fruition. This process is compelling to the designer once they have learnt to handle it. In the professional relationship between Architect and Client however such two-dimensional drawings can remain mere lines on the page to the uninitiated patron. As a result three-dimensional sketches or perspectives are then drawn to evoke what it might be like to be inside these designed spaces, to render the design more convincing to the Client.

Much has been written on the history of delineating three-dimensional space on a two-dimensional surface. For example: Giotto, (1266 - 1337), with his painterly struggles of rendering objects reducing in size as they recede away from the picture plane; through to

Brunelleschi, (1377–1446), with his experiments in lineal perspective and his subsequent sculpturally rendered competition entry, (namely the 'Sacrifice of Isaac'), for the second set of Baptistery Doors, (1401), adjacent to the Duomo of Florence which reveal a 'more convincing' rendition of perspectival space than the winning entry of Ghiberti, (1378-1455).

This idea of 'more convincing' is problematic in the sense of how we render the world that we see; standing on the earth's surface, looking at (say) a vista, through our optical eye devices, but how our brain interprets the view is influenced, indeed affected, by our upbringing, our memories, our personality, so that each of us sees the same vista but its registering on our psyche and its 'afterimage' is unique to each viewer.

The use of lineal perspective has long held sway, (Perez-Gomez would say 'hegemony'), over the way in which we depict space, right from early childhood when we were shown a railway line and adjacent power poles and 'taught' how the rails 'converge' at a distant point and that the repeating power poles got smaller as they retreat into the image. Pérez-Gómez and Pelletier explore this concept in great detail of how we perceive architectural space through the use of perspective in their book *Architectural Representation and the Perspective Hinge,* (1997). These same authors seem to be seeking out the poetics that can be brought about by the rendering of space as a translation within the architectural continuum leading up to the realization of built form as habitable space.

Sometimes drawings are not enough. They can remain abstractions on a two-dimensional surface, they have no light, (architects tend to draw the non-light, i.e. the shadow); so the lines on the page can remain just that, they do not add up, (in the Client's mind), to something convincing or possibly something compelling enough to proceed to the construction phase. Then the architect, often constructs a scale model to help speak, (without words), on his behalf directly to the Client. We all learn as children about the power of the 'miniature' in relation 'grown up' things, via our play with dolls, teddy bears, model cars, and doll houses.

Today, with the plethora of virtual imagining upon us not only in the movie industry, social media, but also in the architectural world and architectural education, one ponders whether we need to build at all? If we can digitally render it, do we need to realize such virtual space? Why bother? There remains something disturbing about the vacuous virtual image. And possibly more to the point has virtual imagining provided us with an improved quality of space? Or has it merely expanded our fetish for the new and ever more novel?

So, what of the architectural scaled three-dimensional model? Its history has been largely around the notion of the 'mini me.' The model being a scaled down version of the yet to be built building. Scale models are smaller in size than us, and thus are viewed from the outside, as though the viewer were some giant, having godlike vision as we look down upon the offering. Consider the godfather image of Philip Johnson, holding his surrogate (of the then unfinished AT&T building), on the front cover of *TIME Magazine* (Hughes, January 8th,

1979). Could the physical model become a way to mediate between the 2-D presentations, (plans, sections and sketches), and the finished habitable architectural space?

If only we could get inside the scale model and look out.

Could the model because of its physical tactile qualities be more meaningful, than the gossamer of the virtual model? Could the model that reacts to sunlight creating natural shadows, which in turn produces a resultant mood or atmosphere, be a malleable design tool? Could designing directly with tone be such a method that enables us to move *toward destructuring the hegemony of panoptic space and proposing a more meaningful and participatory [architectural] space [?]* (Pérez-Gómez and Pelletier, 1979, p.377).

THE RESEARCH PROJECT

The basis of this paper is built upon a series of field trials set within Unitec, Auckland, New Zealand, which I piloted over the years 2007 to 2009. Bachelor of Landscape Architecture students where asked to each build a three-dimensional model of an urban courtyard and to design into the model some proposed improvements to this urban space. On completion of the design and the model making exercise, each student had to also take at least one digital photograph print of their model, (as though standing in the space looking out), and display this image adjacent the model in the design studio.

Following the hand-in of the models and photographic prints, I spent time in this studio listening to comments made by students, other staff and passerby's as they viewed and discussed the work. Although the results and comments were spoken language in relation to the visual outputs, the compelling nature of the photographic image in comparison to the actual model lead me to consider further what seemed to be some kind of phenomena at work. In line with Denscombe's concept of 'Content analysis,' which relates to *hidden aspects,* (2010, p.282), within text, relevant writings were sought out, explored and analysed to contextualise this experiment.

RESEARCH ANALYSIS

The photographic image Figure 1., above, shows the reader an architectural scale model of, (what looks like), some sort of house, (the model was produced as part of a competition entry by the Auckland Architectural firm: rennie dowsett architects).

We know that Figure 1., is a model because of the context within which it sits. The everyday objects that surround the model, the CD/Radio unit in the foreground, the concrete block which the model sits upon, are all known objects that give us contextual and scale clues against which to gauge the physical size and presence of the piece. This model is a small version or 'miniature' representation of the intended real house. The miniature's size

relative to us as humans means that the model is viewed and perceived externally. In the past, this size difference has the advantage of allowing the architect to check the form and proportions of the project as a whole, i.e. to assess it in 'the round.'

This technique is similar to how the sculptor's work*, for example, from the [early] 1950's…[Henry] Moore no longer prepared his three-dimensional works in the form of drawings, preferring to try out new ideas on small maquettes,* (Steingraber, 1978, p.21). Often the three-dimensional maquette is placed on a revolving pedestal, allowing the miniature to rotated in natural light enabling its form to be continuously monitored from all sides; (refer also to the many studio photographs of Moore's work, within Steingraber's 1978 book). And later, if the sculptor was satisfied, the work it would then be scaled up to full size, (often by the sculptor's assistants). However, in Moore's case, he himself would always rework the final full-size piece refining it and adding surface texture before despatching it for casting. The maquette's place in the overall formulation process remains a representation, as does the architectural model's role is within the design and realization process of the finished building.

Human tactility and 'hand making' activities perhaps are, and have always been, (despite the onslaught of 'virtual worlds' being foisted upon our everyday lives), essential to our wellbeing. Scale architectural models are well received by the architect's clients, as Werner says, *the intrinsic quality of models…undoubtedly relate…[to] their ability to elicit emotion. And [they point] to a larger truth: that, nearly always, designers, clients, or others who encounter and interact with models form a connection with them,* (2011, p.9). It is this provocation of heightened sensation that is sought by the designing architect.

From the other two above photographs: Figures 2. & 3., (the reader may or may not guess), are photographs taken by a digital camera, small enough to be placed inside the model, and the captured images show the 'rendered spaces' of what it would be like if one was small enough be inside that model space, (rather like something out of Jonathan Swift's *Gulliver's Travels*). This technique is now possible these days due to the smallness, (and increasing smallness), of the digital camera. Previously in the late 1960's / early 1970's a 'Modelscope' was invented, *this wide angle lens system was engineered for close up and realistic wide angle photography of models.* (Hohauser, 1970, p.197), as a forerunner to this proposed method of rendering.

The viewer of these two photographic images could be persuaded into thinking that these images are real, (i.e. that the renditions are of a 'real' or life-sized house interior), particularly if Figure 1., was not present. Within my studio model making classes, (here at Unitec, Auckland, New Zealand), I refer to this technique as 'verisimilitubing,' a word made up from 'tubing' and 'verisimilitude.' The placement of the camera inside the miniature model is rather like 'tubing,' as in 'cave tubing,' (which is a term used to describe how one travels along an underground cave water system whilst riding on a car tyre inner tube). And

verisimilitude, meaning the *appearance of being true,* (Sykes, 1976, p.1292). A couple of rather less glamorous comparisons to this 'verisimilitubing' technique would be an endoscope sometimes used by a doctor to view into people's cavities and similarly CCTV 'drain cameras' mounted on skid trolleys and sent into underground drainage pipes to inspect and record them.

One of the main reasons it would seem that the photographic renders such as Figures 2. & 3., are so compelling is because real sunlight is acting upon the model's physical materiality to produce a 'life-like' affect, which can compel the human eye and brain into believing they are 'real.' In comparison, the light source for a virtual image is a 'fantasy' sun, and the light affects have to be 'played' with, to get the requisite affect sort by the designer. That is to say, no matter how sophisticated the software, the quality of light will always be artificial for such virtual renderings. The technique being ascribed here is the passive use of natural light upon physically constructed scaled models. This also makes the process quick, inexpensive and accessible to all designers, especially students.

These models, although small, react to sunlight in much the same way that the proposed building would, and thus links to Le Corbusier's often quoted definition: *Architecture is the masterly, correct and magnificent play of masses brought together in light,* (1927, p.31). This aspect of 'light,' in itself, is also of consequence, it has many qualities, (it can vary in intensity, angle of incidence and so on), and it could be argued that is a material too and can be manipulated directly by the designer. Note also, the recent work by James Turrell, his work *is not about light, or a record of light, it* is *light – the physical presence of light made manifest in sensory form*, (Tomkins 2008, p.96). That the model can work with light's physical presence, (and its associated shadows), points directly towards possible manipulation of mood or atmosphere of that proposed space. This technique is similar to when we were children, we all played with our hands and fingers in the cone of light from a slide projector mimicking foxes and rabbit images against the projection screen. That we can build something in miniature, place it in natural light and check its atmospheric reaction in direct light, is allowing the designer to work with aperture sizes, types, veil like filters or screen devices is above all allowing the designer to make design choices.

For an example of this, refer to the 2003 movie: *Concert of Wills*, (which is a film covering the building of the Getty Centre in Brentwood, Los Angeles), where, in one scene the Chief Architect, (Richard Meier), the Director of the Gallery, (John Walsh), Thierry Despont, (Architect and Designer), and the camera person, all squeeze into a mock-up type scale model (a timber and ply structure which is as big as an oversized dog kennel). These four people lying and sitting within this mock-up, then discuss the merits of the *feeling and light quality for the proposed Galleries*, (as spoken by Walsh in above 2003 film), as they observe the light affects first hand. The fact that the designers had to go to great expense to build such a large model, (which allowed human bodily ingress), points to an obvious reluctance by the client to accept the architect's previous renderings.

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These type of case study models, (similar to Figure 1.), are not what I call 'railway' type models, (i.e. where every blade of grass is rendered), there is not time, nor money in the architectural design profession for such toys, rather I am referring to 'concept' type models. These types of models have some abstract qualities about them, (e.g. they do not have miniature chairs and tables like in a Doll's house and thus do not fall into the realm of transcendence in time and space that Susan Stewart discusses in her 1993 book: *On Longing*: *Narratives of the Miniature, the Gigantic, the Souvenir, the Collection*. In fact, if one made use of such 'scale attributers' they tend to give the game away, such small elements are very difficult to physically render convincingly, (has the reader ever tried to make a model of an Eames Chair?). Whereas the omission of such domestic elements, makes for a 'scale-less' representation. Refer also the interior photographic images of models, by the artist James Casebere who makes use of such omissions in his artwork, for example: *Arcade, (1995); Pink Hallway #2*, (2000); and *Nevisian Underground #3*, (2001). Sometimes a familiar detail can give the image extra potency, particularly good is the 'fallen rubble' in *Tunnels* (1995), which as Wigley describes making for a *sense of realism* [that] *is palpable*, (2012, p.384).

The design architect tends to construct these types of models, (they are not models sent out to a model-making sub-contractor, where things can get 'lost in translation'). This tactility allows the architect an intimacy with each junction, each material, and each space created with ones own hands. Contrast this type of handcraft with our ever-increasing virtual engagement with the cyber-world, (for example, on-line shopping and on-line social networking). Busch argues that in fact we need this tactility to counter those other virtual activities in equal and opposite measure, to partake in such *tangible experiences...demand we use our abilities to see, smell, hold and touch in a real and visceral way[s],* (2004, p.44). Making things with our hands remains a very satisfying human experience, (refer also to Pallasmaa's 2009 book: *The Thinking Hand*, for a full breakdown on this subject). Often as architectural design tutors, we have trouble getting the student's head 'out of the box,' (i.e. away from the computer screen), and getting the student to think about what they are really ascribing with their virtual pixels. Personally, I often find my model making sessions within the design studio have an air of relaxation and keen industry amongst the students. Compare this to the tension and frustration within the same body of students whilst attending a computer lab, (building virtual models); this seems to amplify Busch's above comments. Refer also to Sennett's 2008 book *The Craftsman,* for further reading on the history, material consciousness and ethical values of handcraft.

When we construct a model we need consider carefully the modelling materiality, (i.e. how it 'scales down'), as Schilling says:

> *The best way to simulate a real material is to use it in the model. For instance, model builders can reproduce fair-faced concrete in a...scale model using concrete.*

They need only to build miniature formwork, fill it with a fine mixture of cement and sand, pack it down and let it dry. The results are impressive! In this case, model making scales down the entire construction process, simulating not only the finished object, but the process itself...Modellers often achieve a stunning effect with their interior models, making it [often] impossible for viewers to distinguish between the photograph of the modelled space and the real spatial situation. (2007, pp. 18-19).

However, sometimes the model maker needs to improvise, whether it is in relation to issues of time and/or money, (and this is often the case for students). Some materials do not scale down well, for example: 'grass;' therefore the model-making techniques can involve the transformation of material. With careful consideration of the material selection, for example, in Figure 2., above, the model walls are actually made of a grey packing case card, (which also happens to be one of the cheapest cards available) – but it has the grey coloured substrate going the whole way through, (compare this with 'normal' cardboard which is laminated up from of a different coloured core to the outer layers). Thus at wall junctions, this grey card jointing appears seamless and could be read as a monolithic material such as plaster render or solid concrete, transforming the card when viewed through the digital camera's viewfinder. Timber veneers are also useful, they can be scored to look like real timber boards and likewise mitred at the corners to add to the realism. The 'made fabric' that makes up the model: walls, floors and ceilings not only delimit the interior space, they help to inflect the space so that their surface qualities are important. As mentioned, any apertures in the built fabric are crucial as they modulate the natural light as it enters the space, which in turn informs the overall spatial tone or atmosphere. As a general guide, I encourage the student to experiment with any material first to check out how it photographs at close range, before considering it within the model, the main issue is: will it 'reduce' in size and photograph 'up,' so to speak, and 'talk' as the intended material? So in this manner, such models can be as literal or as abstract as the designer requires in responding to the Clients' material preferences.

Peter Zumthor, (in discussing his design of the Thermal Baths at Vals), liked to use the intended versions of the proposed final building materials so that he can study the interaction of light and material, *using large outdoor models, we studied ways in which the combination of daylight, coming in through the joints in the roof, and the water below could create a specific atmosphere...we built our models out of stone or aerated concrete and filled them with water,* (2007, p.70). Additionally in 2008, there was a large exhibition of Peter Zumthor's office models, (encompassing over 2000 square metres of space, in the LX Factory, Lisbon), where the built models were often large enough to put one's head inside, and therefore able to be experienced from within the interior. The immersion of ones head, (which, although sounds novel), in fact allows clear sensory uptake related to

the proposed interior character as it is seen, smelt and heard first hand by the participant. (Observe the many images of the various models from this exhibition online at Movingcities.org. 2008).

Writing in the first issue of Camera Works in 1903, Steichen quips: *Every photograph is a fake from start to finish,* (1903, p.48), although Steichen was really talking about the human intervention within the developing / printing process of the photographic process. Today, the digital process surely leapfrogs this aspect, the image being almost instantaneously available on the back screen of the digital camera. But this word "fake" is useful as one can see from the above case study 'verisimilitube' type renderings, they too are fictions in the sense that they are renditions of a miniature and as shown by my examples, can be 'misread' as life size. This idea of the photographic image being misleading is not new, and Walton even points out that such distortions of photos don't really matter: *we can be deceived when we see things directly. If cameras can lie, so can our eyes,* (1984, p.258). Walton uses the example of a convex mirror where distortion takes place, yet we, the viewer have learnt during our upbringing *that convention must be understood...for one to "read" properly the mirror images,* (Walton, 1984, p.262). An example of the inaccuracies that occur within photographic images can also be seen if one overlays a piece of tracing paper on a photo (for arguments sake: a view looking down a linear street), and then one tries to find the vanishing points, from the edges of the buildings – they don't all 'vanish' to the vanishing points as would be the case within a 'constructed' two-point perspective drawing.

The still camera image, (and later the digital camera image), as we all know, compresses the three-dimensional reality into a two-dimensional image, or as Morris states: *Photographs collapse the three-dimensional model back into pictorial and perspectival space, back to the two dimensions,* (2006, p.72). These interior images of the model seem to also rather mysteriously tighten-up and enhance the model beyond itself. An example of this is if one considers the model workmanship, it doesn't appear as bad in the image, (versus, as seen 'in the flesh'). And, I have often heard students say: 'Whoa!' when they compare the realised photographic interior image and look down at the corresponding model on a desk adjacent, (the inference being: 'did that rather "manky" model really produce that compelling image?'). There seems to be some type of transformation at work here, some phenomena working within actual image taking, and image making, Possibly even a transmogrification has taken place, as the distortive affects are often startlingly magical. Wigley ascribes Casebere's model photos as *being in a state of suspension,* (2012, p.383), and perhaps also this is what Evans alludes to when he uses the term *suspension of critical disbelief*, (1997 p.154), that moment when 'one is stopped in ones tracks' upon encountering these 'verisimilitube' images. Perhaps another way of thinking about these distortions from within the visual representation could be the moment of engagement with the viewer's mind, where the viewer is allowed to 'join up the dots,' so to speak, allowing a 'visceral buy-in.' An example of this is: *A photograph is both a pseudo-*

presence and a token of absence. Like a wood fire, photographs…are incitements to reverie…such talismanic uses of photographs express a feeling of both sentimental and [are] implicitly magical: they are attempts to contact or lay claim to another reality, (Sontag, 1979, p.16).

This miniature reality, too small to inhabit, has had some life breathed into it via these 'verisimilitube' type renderings, and they can portray how one might inhabit, (momentarily or even reside), within these spaces. Perhaps these images open doors in the viewer's mind, often activating his/her memories of dwelling and all its ramifications, which extend back into their childhood, (whether they know it's a model or not). If the project is indeed a design for a house, (as per Figure 1.), perhaps the client could then ponder a fundamental question: 'Could I dwell in this place?'

In contrast, the plethora of virtual image creations, (which often lack a sense of 'grounding' by their vacuous nature), seemingly roll out at will, are:

> *Forceful imaging techniques and instantaneous architectural imagery [that] often seem to create a world of autonomous architectural fictions, which totally neglect the fundamental existential soil and objectives of the art of building. This is an alienated architectural world without gravity and materiality,* (Pallasmaa, 2011, p.19).

If one reconsiders Figure 3., for a moment, on the right-hand side of the image there appears to be some sort of built-in seat and a hallway leading deeper into the space beyond. These elements not only start to ascribe the purpose of each space, but set up the scale of the image and set in motion the process of how we perceive this image; but it is the captured sunlight that activates these spaces. I think the reader would agree that even the blurring of the constructed elements close to the picture plane are not that disturbing, in fact they render a real sense of atmosphere and depth to the representation. These small digital cameras that are on the market, seem to be designed with macro-type lens which allow for extreme close-ups, (refer also to how many people use these same cameras: at arms length taking self-portraits for social media purposes), compared to the older SLR type cameras with a standard lens that didn't allow one to focus on objects much less than one metre away. The auto-focus feature and the zoom function that these new digital cameras have, allow some playing with the depth of field, whilst inside the model. The images also don't have to be 'frontal' or one point perspective type images, it's just the plan of the above case study model has a rectangular shaped Plan; the method does allow for oblique or skewed type spaces, the images received often have dramatic affect.

Pallasmaa also talks about the advantages of understatement in architecture, that good architecture should, gently invite our embodied, tactile and sensuous imagination, (2011, p.97). This perhaps fits snugly with my contention that the above photographic digital type of representations of the 3D concept model, are much better for not being 'railway like

models,' (for example, 'scaled people' were deliberately omitted from within such models), opening up the possibility that the viewing client's imagination might have room to engage more with the proposal.

Further successes can come with the presentation of these 'verisimilitube' type renderings to the client on a laptop or computer screen only, (as opposed to the same images that have been printed on paper). The backlit screen versions of the digital images emanate more light and they are always brighter than the paper bound equivalents. An analogy here would be the vividness of colour in stained glass of medieval cathedrals vs. paint on weatherboards. There seems to be some sparkle, perhaps even some levitation produced by light travelling through glass versus light being reflected off an opaque background.

Notably, one such pleasant surprise in the above model, (as shown in Figure 3.), which was not noticed until later, (when the images where closely examined on the computer screen): was the chiaroscuro type affect achieved down the right-hand hallway, with the associated glowing of orange-red light which has bounced from the adjacent orange wall, (this wall appears in Figure 2.). Nature and natural affects have been merely caught via the accuracy of the digital camera, (no Photoshop was used at any stage of this process). Therefore no expensive software was required, and no time was spent building up virtual affects. *Photographs really are experience captured, and the camera is the ideal arm of consciousness in its acquisitive mood,* (Sontag 1979, pp. 3-4). In contrast: how long would have such effects taken to render via pixels, let alone draw by hand?

Natural light activates a space, by light penetrating the interior, its presence, (fleeting or otherwise, as the room anchored to our planet rotates around the sun), sets the mood or character of the proposed space. Not only are the elements we associate with architecture: the walls, floors, and ceilings crucial but also the light itself is now malleable during the design / rendering phase, with direct consequence to the spatial tone, which is vital to both architect and the client. As Bollnow says: *mood is itself not something subjective "in" an individual and not something objective that could be found "outside" in his surroundings, but it concerns the individual in his still undivided unity with his surroundings...mood becomes a key phenomenon in the understanding of experienced space,* (2011, p.217).

That various moods or atmospheres can be experimented with, quickly, cheaply with such model making / digitally rendered fictions seems to point to some value of this 'verisimilitube' type process, however the 'horse has bolted' in regard to the widespread use of virtual images. It could be that this 'verisimilitube' type imagining equates to the slow-cooking movement versus worldwide fast food outlets is an appropriate analogy?

Indeed, what one can say, with this approach, is one not wasting the clients' money nor the spatial designer's fees in full-scale mock ups, (for example, as Edwin Lutyens did in 1913 with a full size rendition of a gatehouse and courtyard walls, (and using timber to represent

stone), in an attempt to convince his client that they were needed at Castle Drogo, refer to image in The National Trust guide booklet, 1982, p.4.

In response to Evan's influential essay *Translations from Drawing to Building*, (1997), which argues that architects don't build buildings, they draw drawings, (that represent an intended construction). Orthographic drawings are often just 'Valentine cards' to the author architect, (and to other architects, with the interest in such drawings, often generated by Architectural magazines). The Architect's clients seldom understand such the two-dimensional line work, so perspectives, (including digital); have been used to "sell" the project to the client. But, what if such 'verisimilitubed' miniature fictions could be used as a way to a more sensuous approach to rendering architectural spaces? What if the architect could work directly with natural light in fusion with material form to investigate the tone or mood of the proposed space? Is this not how the Real Estate agent works? They often portray an interior of an apartment or house with photographic images with no furniture in it. It is my contention that this is often deliberate, it allows the potential buyer to gauge from mere light entering a space, to judge its tone and atmosphere and then ponder 'would all my possessions fit snugly into that space?' 'Could I dwell in that space?'

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