Paper architecture: design thinking and research

Michael Ostwald + Chris Tucker + Michael Chapman
University of Newcastle

Abstract:

The title paper architecture is often reserved for designs that are intended to remain solely in some representational form (drawings or models) and have been produced in academia. These works are typically completed either as personal research into the nature of design or as an architectural response to an issue. Much paper architecture is also unbuildable and, because of this, it is freed of the traditional burdens of architecture (gravity, weather-proofing and functionality). Yet, by being free of these constraints paper architecture is obliged to bear additional burdens. In particular, it is argued that a responsible paper architecture should function as a bearer of meaning; it is encumbered with the weight of ethics, aesthetics, politics and philosophy. These are also some of the loads borne in academic research and design.

The present text is concerned with designs that have been produced from within academic practice, not for the purpose of being constructed nor earning commissions, but primarily as an extension of personal and scholarly research. The paper presents a brief overview of the environments which promote unbuilt architecture before considering possible reasons and motives for producing it. The discussion considers and dismisses one explanation from Sigmund Freud for the production of such works and investigates alternative examples from Lebbeus Woods and Raimund Abraham that support a more Nietzschean rationale for paper architecture. The purpose of this analysis is to begin the process of identifying the particular burdens that paper architecture is most able to carry and that may be the most appropriate focus of design from within a university environment.
Paper architecture: design thinking and research

Burdens supported by paper

The title ‘paper architecture’ can potentially be used to describe any architectural design that has not yet been constructed. This category could encompass a design submitted for an architectural competition, a project that is awaiting approval from a client, or one that has, for economic or other reasons, not been realised. More often, the title is reserved for designs that are intended to remain solely on paper or in some representational form. In this category, the concept of paper architecture includes the creation of physical and digital models as well as the production of completed drawings, collages and exhibitions. In such cases, regardless of the chosen representational form, these works are typically completed without a client and either as personal research into the nature of design or as an architectural response to an issue. ¹ Much paper architecture is also unbuildable and, because of this, it is freed of the traditional burdens of architecture (gravity, weather-proofing and functionality). Yet, by being free of these constraints, paper architecture is obliged to bear additional burdens that conventional architecture routinely eschews. Ludwig Wittgenstein argues that architecture only exists if it can ‘glorify something. That is why, wherever there is nothing to be glorified, there can be no architecture.’ ² Physical architecture celebrates its own materiality and its demonstrable power to resist the pressures and influences of the natural world. In contrast paper projects only become architecture when they dramatise or, to use Wittgenstein’s term, glorify burdens that are most appropriate to their form. In particular it has been argued that a responsible paper architecture should function as a bearer of meaning or knowledge; it is encumbered with the weight of ethics, aesthetics, politics and philosophy. ³ Jeffrey Kipnis not only supports this contention but he also argues that the paper architecture tradition is closely associated with the desire to valorise forms of representation, in and of themselves, and that this is a legitimate and often forgotten burden:

The history of architectural drawing as an end in itself, as a fully realized, self-sufficient work of architecture, rather than a subordinate representation, is well settled. For centuries, architectural drawings’ intrinsic qualities have attracted admirers. […] Thus, the architectural drawing as end work can function in any of three ways: as an innovative design tool, as the articulation of a new direction, or as a creation of consummate artistic merit. ⁴

Kipnis records that some of the most famous works of paper architecture were produced in the 1970s within an academic environment as a result of a downturn in the world’s economy. Bernard Tschumi’s Manhattan Transcripts, Daniel Libeskind’s Micromegas and Rem Koolhaas and Elia Zenghelis’s Exodus, or the Voluntary Prisoners of Architecture⁵ were all substantially completed in this free-spirited, if economically disadvantaged, decade. During this period young architects had little opportunity to construct
their designs and yet were experiencing strong emotional, spiritual, sexual and political freedoms. Whereas in literature, film and art, authors, directors and artists were all able to express their growing awareness of a changing world, architects were stripped of their primary mode of creative expression; the production of buildings. Out of a growing sense of frustration these designers turned to innovative forms of drawing as a means of expressing their creativity. Yet such social and political conditions are not the only catalysts for paper architecture.

In the 1980s in the Soviet Union young architects produced paper architecture out of a different sense of frustration. Their intensely phantasmagorical works, which remained unpublished for several years, were initially assumed to have arisen from the era of glasnost and perestroika. However, as Heinrich Klotz observes in his book Paper Architecture, this initial reaction turned out to be untrue because the work had formed instead throughout the Breshnev era:

[It] was under Breshnev’s rule that all those rigid, large buildings that have disfigured Moscow’s image were erected — those huge fortifications of state-owned enterprises, that have even surpassed the Western disaster of ‘glass-box architecture’.6

It is this brutal totalitarian built environment that lead these architects:

to rebel against the petrification and to mobilize counterforces on paper. Their ‘paper architecture’ [is] not the result of a stimulus arising from the new situation, but a protest against a corrupted state architecture of former years.7

Klotz’s sentiments are echoed in Mikhail Belov’s assertion that these works:

are not yet the fruits of perestroika — these will be harvested in the future. Rather, they are all the ‘children of the stagnation’, who have grown up in spite of it.8

Much recent paper architecture is not the result of a lack of opportunity to build; rather it is a partial reaction against it. This recent trend in paper architecture is not inspired by new freedoms, but the loss of old ones. These are not Kipnis’s radical, ‘perfect acts of architecture’, but tentative forays into the contested territory once held by paper architecture and now being rapidly lost. Economic prosperity not only brings architecture increased capacity to produce buildings, but it also tightens timescales and intensifies the focus on functional, economic and pragmatic considerations. While this is not necessarily a negative condition, it often promotes the production of a type of architecture that is focussed, almost exclusively, on an equally narrow range of architectural responses. An example of a similar call for
theoretical architecture to operate as a foil to societal affluence and ambivalence is found in the work of the Architecture Principe group and its partners Claude Parent and Paul Virilio. In the 1960s Parent called for a radical rethinking of how architecture relates to the city, its politics, social forces and cultural conditions:

Suddenly [architects] had the freedom to construct pretty much what they wanted, how they wanted. Yet it seems to me that almost everyone was too busy building to stop and think, particularly about the relation of architecture to the city. The widespread euphoria stifled the ability to respond critically to work. The architectural press described everything as wonderful. Paradoxically there were fewer ideas bubbling around than in the 1950s, when there was very little money but no shortage of enthusiasm or critical reflection.  

Along with these problems, a result of the financial prosperity of the 1960s and late 1990s, in recent years there has been a concomitant, and more disturbing, escalation of censorship, litigation, social conservatism and intolerance, community indifference and fear of the unknown. Paper architecture is particularly under threat at these times as its role is to carry, critique or resist such political, cultural and philosophical burdens.

The relationship between unbuilt architecture and its built equivalent can be conceptualised through a deeper understanding of the psychological divide between the conscious and the unconscious. The work of the unbuilt, unconstrained as it is by physical properties or social and political realities, typically takes on an emancipatory quality which, in a manner similar to dreams, has the capacity to reveal and celebrate socially repressed ideas, cultural taboos and hidden or inhibited objectives. This approach to architecture, by transcending the conscious and widely understood properties of the real, provides alternative techniques for understanding and interpreting reality.

The work of Sigmund Freud may be useful in providing a deeper understanding of the psychological processes that accompany the unbuilt work of architecture and its relationship to broader social behaviour. Freud’s 1905 work Jokes and Their Relationship to the Unconscious may be instrumental in providing one possible psychological apparatus for conceptualising ‘paper architecture’ and its unconscious motivation. Importantly for Freud the concept of a joke also encompasses more subtle and powerful comedic forms like parody and satire. At times more akin to the concept of humour in Dante’s Divine Comedy, Freud’s 1905 work is unusual in his oeuvre for dealing primarily with normative social behaviour and its motivations rather than the complex neurosis that preoccupied his life’s work. Freud had touched on the importance of normative subversion for understanding the unconscious in his epic work The Interpretation of Dreams five years earlier, but his groundbreaking full length work of 1905 was not
only his most lucid and comprehensive work on the topic but also arguably the first psychological interrogation of humour by any author. For Freud the comedic act plays an important role in discharging repressed energy placing it in a special relationship with the unconscious. The role of the comedic act for Freud, who paraphrases Kuno Fischer, is to ‘bring forward that which is concealed or hidden’ offering a comparison with the unbuilt work of architecture. Freud studies in depth the nature, purpose and technique of comedy, but it is the final section of his work ‘The Motives of Jokes—Jokes as a Social Process’ that he most directly confronts the deeper psychological motivations for jokes and argues for their relevance in social situations. For Freud the comedic act is an instance if social liberation; a moment when the communal or political norms are transcended. In a relatively narrow reading this could suggest that the unbuilt work of architecture, as an alternative to built reality, transcends the normalising tendencies of the built environment, the profession and society. However, while Freud’s theory has limited potential to describe paper architecture and its burdens (to transcend normative political, professional and social expectations) it is less convincing when pursued beyond this level.

Importantly Freud understands the comedic act as regressive behaviour and a yearning for a simple and less imposing social environment. Freud concludes his work with the following lines:

For the euphoria which we endeavour to reach by these means is nothing other than the mood of a period of life in which we were accustomed to deal with our psychical work in general with a small expenditure of energy—the mood of our childhood, when we were ignorant of the comic, when we were incapable of jokes and when we had no need of humour to make us feel happy in our life.¹⁴

Here it is apparent that Freud’s proposition for social transcendence is at best of limited use in paper architecture. While there are, no doubt, examples of paper architecture which serve as base visual humour—several of the more overtly sexualised renderings of Jean Jacques Lequeu¹⁵ might fit into this category as well as Piranesi’s famous scatological landscape¹⁶—the vast majority of paper architectural works have more laudable ambitions and bear more valuable burdens. Freud’s theory, at its most general level, suggests that paper architecture is concerned with emancipation. The unbuilt work certainly provides a forum for critiquing and undermining the physical environment. It is transcendental in both its initial motivation and its final form and it reacts against the normalising forces of the built environment and the banality of the physical forces and governmental regulations which give form to it. The unbuilt work reveals the repressed and unrepresented emotions that structure society, but not in the same way that Freud considers the comedic impulse a sign of nostalgia. Consider the example of Lebbeus Woods.¹⁷

Woods’s work differentiates itself from more conventional architectural practice by establishing drawing as a valid alternative to constructed architecture. This position has strong antecedents in Western
Architecture beginning with Piranesi and the French Neoclassicists and again resurfacing at the beginning of the Twentieth Century in the work of the Expressionists, Futurists and Constructivists. Woods’s work demonstrates an awareness of these earlier precedents and is, in many ways, an extension of them. Woods draws primarily in perspective, providing sections and plans only intermittently, giving a typically filmic quality to his renderings. It also ensures a level of imprecision in his work, freeing his designs from the more pragmatic demands of the plan and section and allowing an unrestrained exploration of the concepts embodied within the projects. Because of the inherent freedom of this architectural genre, Woods has been able to complete a comparatively large corpus of work over the last two decades on an incredible array of themes. All of this work remains unencumbered by the burden of physical realisation, existing on a purely philosophical or artistic level.

Woods has posited a new relationship between architecture and life that focuses on intellectual rather than physical creativity and is concerned entirely with the act of ‘making plans’. Significantly Woods adopts a similar argument to Nietzsche when addressing the schism between drawing and architecture and Stephen Games refers to Woods’s intention to ‘create an architecture which celebrates its source—the human mind’. Here the practice of philosophy amounts to the construction of intellectual edifices and for Woods the act of drawing is one of creation. According to Woods, ‘drawing […] is a way to shape, to form, to construct. […] I am building in my drawings.’

This intellectual position is not unique to Woods. There is a long history in architectural discourse of unbuilt architecture that exists openly at variance to its built equivalent. Architectural theoreticians such as Piranesi (notwithstanding some lapses as previously noted) and Boullée provide a powerful precedent for the political and social position of Woods. More recently, architects such as Lars Lerup, Douglas Darden and Raimund Abraham have developed arguments for drawing or model making, over and above the science of building. Abraham in particular has written at length about the philosophical implications of drawing in a position strongly reminiscent of Woods’s. Abraham argues for the ‘reality of the unbuilt’ contending that architectural drawing is equivalent to thinking as a source of spiritual creativity and philosophical rigour. For Abraham the act of construction is often tantamount to the corruption of intellectual ideas. He confirms this when he writes:

[w]hen I have not built it is not an indication of the wish not to build. Rather it is the fear of having to sacrifice the attempts and autonomy of thinking and drawing architecture to the building process.

Unbuilt architecture offers the opportunity for the development of an intellectual position, which is often neglected in built work. Abraham argues that architecture has always been an intellectual rather than physical activity and that construction is only one stage of a much broader philosophical position.
Abraham, as a result, is critical of the banality and superficiality of much of the built environment and its neglect of any theoretical or philosophical integrity. This is at the heart of what Abraham sees, somewhat pessimistically, as a looming crisis in building:

There is no crisis in architecture. Rather there is a crisis of architects. One of the most renowned architects in this country once said, ‘I am not a moralist, I have no ideology, but I know exactly what I want to achieve as an architect’. This statement is consistent with the ignorant self-confidence displayed by the building architects of our time. They have become the victims of their compulsion to build. 22

Such a position, which entails dismantling intellectual and physical barriers, again borrows heavily from the philosophical architecture delineated by Nietzsche. However it has also attracted criticism, particularly from the pragmatic elements of architectural practice, which tend to dismiss the work of Woods on the basis of its inability to be realised. This can be glimpsed in the writing of Kester Rattenbury, among others, who describes Wood’s work as ‘a kind of deliberate madcap architectural professorship proposing dangerous things that no-one takes seriously—harmless and a bit of fun. Less of an argument and more of a comic strip’.23 Steven Games, in a similarly caustic reading, criticises the impoverishment of Woods’s architectural theory in its inability to exist without the explanatory texts that accompany the drawings. Games concludes that ‘Woods’s imaginary, functionless cities do not imply an unstated purpose awaiting fulfilment so much as a redundant mythology awaiting re-enactment.’24

Paper architecture is not the product of, as Rattenbury suggests, a ‘deliberate madcap architectural professorship’ but rather a range of environments, which either through their extremes of poverty (the 1970s) or prosperity (the 1950s and today), distract architects from important social and cultural conditions. Unbuilt projects that have been produced within academic environments must engage with the world for them to be relevant but this engagement is not physical; rather it is historiographical, political and epistemological. The means of social engagement employed by paper architects should be transcendent (as suggested by Freud) but not simply for nostalgic diversion. If paper architecture’s only purpose is to amuse or divert then the burden it bears is possibly so insubstantial that it is not worth carrying. However, if the goal of paper architecture is emancipatory (as suggested by Nietzsche and seen in the work of Woods and Abraham) then the burdens are real and substantial.

Whatever the case, over time paper architecture has grown in stature and worth in proportion to the issues it confronts — or the burdens it carries.25 Academic design, which is sheltered or cloistered in so many ways, should respond to this realisation. Paper architecture, like constructed architecture, has burdens and can, and indeed should, be criticised and analysed in the context of these burdens. What is paper architecture for, if it has no aspirations? Can paper architecture just be experimental? While this final
question is beyond the scope of the present paper there is a branch of paper architecture that argues that experimentation, without apparent motive or intent (other than to strive for formal novelty) is a valuable outcome. This may be true but the outcome should not necessarily be considered architectural. By definition experimentation is a process of controlled investigation that works from a priori assumptions towards a desired outcome; without such a consistent framework and motivation formal and peripatetic meandering hardly warrants the title architecture. This is one of the potential problems facing the producers of digital, paper architecture. Their projects typically bear few burdens and run the risk that their outcomes are similarly insubstantial.

5 The project was completed with Madelon Vriesendorp and Zoe Zenghelis.
7 Klotz, Paper Architecture, p. 7.
18 Stephen Games, ‘Dream Cities,’ AA Files No. 2 Spring 1986, p. 82.
25 This conclusion parallels some of the suggestions in the French sociologist Pierre Bourdieus’ conceptual framework of values. In particular an alternative conclusion to the paper could use Bourdieus’ notion of Cultural Capital to argue the same point. However, the use of such an argument would inevitably raise a range of social or class-based distinctions which the present paper is only indirectly concerned with. Instead the paper’s conclusions could be read more generally as a comment on an idealised or even nostalgic view of the academics’ role in society; a role that is admittedly, in Australia in the early Twenty First Century, increasingly problematic.