

## **Drawing Rooms**

### **Outline Description**

This article is an exploration of the role of drawing in the design of Irish domestic space. My ongoing involvement in the practice of architecture and in particular in the design of domestic space at various scales forms a key component of this research. The study will rely on the tacit and embodied knowledge that comes from architectural practice and from the experience of working with pencils, pens, transparent paper and computer programs in realizing a drawing, and the theoretical and practical issues that are generated by the struggle to probe reality and envision domestic life on to a two dimensional surface. The drawings of one domestic project designed by my practice, GKMP Architects, will be used to explore the issues raised. This project, a house designed for my brother and his family, also allows for an exploration of the role of personal history and our previous experiences of home in the design of domestic space.

### **Introduction**

For an architect the act of drawing has the capacity to connect to and shape the future use of a dwelling and the way in which it is inhabited. It becomes the means by which we ‘probe reality and wrestle with the particular’<sup>1</sup> and address the contingencies and complexities of human life. The design process generally involves a process of overlay, whereby drawings are sketched over in a continuous process of alteration and modification. This manual process potentially allows for a direct connection between the mind of the designer and the spaces being articulated in the drawings. In this way those casual and temporal aspects that originate in the necessities of practical, real life, and that are translated into a range of drawn forms, can become genuine sources of inspiration for the architect. Contemporary drawing techniques involving the use of computer software can change this design dynamic from a process of overlay to a system of layering, panning and zooming, which must have an impact on the resultant spaces, but these effects have not been carefully studied to date.

The focus of the study is on domestic space. The concept of domestic space and its conceptual counterpart, ‘public space’, are understood to have evolved in a Western historical setting of rising urbanism, tracing back to seventeenth-century Europe.<sup>2</sup> This concept is intertwined with the idea of domesticity as a devotion to home life that divides the public and private worlds into the distinct realms of ‘work’ and ‘home’.<sup>3</sup> The design of domestic space and attempts to re-

imagine it through architecture are therefore inevitably met with strong societal resistance. This resistance is also embodied in the architect who is designing it. His or her dispositions towards domestic space are conditioned by personal history and by the embodiment brought about by the experience of the 'privileged locus of the space of the house'.<sup>4</sup> In this way the familiarity, cultural ubiquity and apparently 'natural' character of domestic spaces complicates the way in which they are designed, rendering them 'invisible' or transparent, both to their inhabitants and to the architects who seek to critically understand them. The aim of this article is to overcome this 'invisibility' of certain aspects of domestic space by engaging in a theoretically informed analysis of the design process and the way in which it interacts with and shapes ideas of domestic space.

### **The Logic of Practice**

Architectural drawing is understood as a social practice. It is a process of discovery of ideas, but is also the medium through which those ideas are elaborated, communicated and produced. It is as a practice that architectural drawing produces consequences and acts in the world. This practice can be understood more clearly through the writings of the French sociologist Pierre Bourdieu (1930-2002), in particular his contention that the social and institutional systems that make up society operate according to two forms of logic: rational logic and an alternative logic, which may be understood as the logic of practice.<sup>5</sup> Applying this suggestion to the process of architectural design, a hypothesis begins to emerge in which distinct modes of thought act on the drawing process: rational logic in respect of geometry, dimension, precedent, regulation and economy; but also another logic that is incorporated in the architect and is more habitual, instinctive and experiential. Bourdieu's notion of 'habitus' provides a further theoretical framework through which to understand and describe the way that the logic of practice might operate in the design of domestic space. As 'habitus' is a habitual or typical condition, a system that disposes people to interact with each other and with their environment in particular ways, without necessarily being conscious of its effects, the processes of design and drawing can therefore be understood in both psychological and social terms: psychological because the habitus is inside the heads of actors, and social because a group of people can be described as having a habitus.

In seeking to unravel the thinking that underpins this combination of psychological conditioning and social practice, it is my contention that the thought process and the drawings that emerge from it have a direct influence on the domestic spaces that are eventually constructed. At the same time the logic of practice that operates on this process disposes the architect to think and draw in particular ways. These dispositions are products of personal history, most particularly of

the houses we live in as children that serve to embody perceptions, attitudes and practices towards domestic space. As Bourdieu has described it:

The house, an *opus operatum*, lends itself as such to a deciphering, but only to a deciphering which does not forget that the “book” from which the children learn their vision of the world is read with the body, in and through movements and displacements which make the space within which they are enacted as much as they are made by it.<sup>6</sup>

The education system also contributes to this process of inculcation, handing down a way of looking at things and doing things that influences our thinking and the outcomes of the design process. In this respect it is significant that the design of Western domestic space has, arguably, not changed significantly since the emergence of the modern home in the domestic architecture of the 1920s until the 1950s,<sup>7</sup> despite the radical changes in lifestyles and households that have taken place. This suggests that there is something operating in the practice or in the field that tends towards predictability and suppresses novelty.

This resistance to change in the design process emerges from the way in which our previous experiences of home engender our ways of drawing and thinking. Architectural drawing, as a form of practice, both structures and is structured by domestic space. The drawing of domestic space is a product of the habits and histories of the human body even as its product - the constructed space - also becomes a locus of the memories and dispositions through which each of us knows and lives in the world. Joseph Rykwert, in his book *The Necessity of Artifice*, describes the way in which perceptions are shaped by bodily experience:

Every moment of perception contains a whole personal and collective past, our body is the incarnation of that past, and with every moment of perception this past is recorded and revalued.<sup>8</sup>

The process of drawing, irrespective of the medium, involves the action of the body to make marks on a sheet of paper or to operate a mouse or keyboard. At the same time the thinking that accompanies this process and which makes decisions about the nature of domestic space is always informed by both convention and personal history.

## Project

The word 'project', which is almost always used as a noun, seems to have lost the association with its verb, 'to project', meaning to cast forward, literally to extend outward. The verb 'project' thus encapsulates the essence of an architect's job, where casting into the future, making plans, literally and conceptually for that future – an intense speculation of a very precise nature - is the work method employed. At the same time the principal drawings used are described as 'projections': plans, sections, elevations, axonometrics and perspectives, that represent the speculative space in two dimensions and allow it to be tested and elaborated. The architectural historian Robin Evans succinctly pointed out that 'architects do not make buildings, they make drawings for buildings.'<sup>9</sup> These drawings, therefore, act as projections of an imagined life onto a sheet of paper or screen, at the same time that they become the basis for the physical construction of the spaces that will accommodate future domestic life. In this context Evans has stated that for the architect 'projection breaches the boundary between world and self.'<sup>10</sup> This is discussed further by Stan Allen in his book *Practice: Architecture, Technique + Representation*:

By the translation of measure and proportion across scale, architectural projections work to effect transformations of reality at a distance from the author. Projections are the architect's means to negotiate the gap between idea and material: a series of techniques through which the architect manages to transform reality by necessarily indirect means.<sup>11</sup>

The critical importance of these projection drawings to the architect derives from their capacity to synthesise all of the complex and conflicting aspects of the project. The plan, in particular, is used to organize and arrange domestic spaces and can describe their enclosure, openings, furniture, light, material and structure in one image. Throughout the design process, from inception through to construction, these drawings are constantly revised, overlaid and revisited as the project is elaborated and new circumstances are considered. The nature of architectural practice is described by Allen:

The process of design and construction is characterized by constant tactical adjustments made to the demands of clients, codes, consultants, budgets, builders, and regulatory agencies, not to mention the complex logistics of construction itself.<sup>12</sup>

The drawings become the medium and register for these tactical adjustments, as well as the means through which the architect controls the conflicting demands of the project. In seeking to describe the role of the drawing in the design of domestic space, therefore, I will use a series of drawings made at different stages of one project. These are, of necessity, snapshots of a design process that involved the making of hundreds of drawings and models. The purpose of describing them is to overcome the 'invisibility' of the thought process, even within the field of architecture itself, where drawing practice is so commonplace that it is often what Bourdieu describes as 'a *discourse of familiarity*, it leaves unsaid all that goes without saying.'<sup>13</sup>

The project for discussion is a house designed for my brother and his family on a mews lane in the inner suburbs of Dublin. They required a large house that would serve as a long-term family home and would adapt to their changing requirements. The site is long and wedge-shaped and defined by a large privet hedge along its northern boundary with the laneway and by a number of mature native elms close to the southern boundary. At the outset there was an existing 1960s cottage at the eastern end close to a neighboring terrace of houses. The site is overlooked by a further row of houses to the south.

## **Initial Ideas**

Following a site visit and a briefing meeting with the clients, the first sketches for the project (Fig. 1) are a combination of a ground floor plan, aerial axonometric, perspective and elevation to the lane. The initial idea, evident from these drawings, is to make a large sloping roof that mediates between the scale of the neighboring terrace of houses and the garden. The ground floor plan indicates an idea about making a small entrance courtyard to the lane. It also shows a more fractured geometry on the southern edge in response to the close proximity of the houses.

These initial sketches are both vague and precise at the same time. They are drawn by hand in a sketchbook and are indicative of a work method that combines thought and drawing concurrently. The formulation of the initial ideas occurs in their drawing. The sketches are more concerned with finding an appropriate form for the house rather than with its organization. The aim at this stage of the project is to establish an idea that is sufficiently 'loose-fit' and 'fluid' to enable it to adapt to and accommodate the multitude of changes and elaborations that will occur in the working out. This approach is influenced by the Finnish architect, Alvar Aalto (1898-1976), who used the dictum 'to include everything' and possessed what I would characterise as an exceptional attentiveness to the particular. He used drawings as the basis for making an architecture that responded very closely

to the functional and physiological needs of its future inhabitants. Aalto described his design process as follows:

For a moment, I forget all the maze of problems...I begin to draw in a manner rather like abstract art. Led only by my instincts I draw, not architectural syntheses, but sometimes even childish compositions, and via this route I eventually arrive at an abstract basis to the main concept, a kind of universal substance with whose help the numerous quarrelling sub-problems can be brought into harmony.<sup>14</sup>

Our first sketches show this pursuit of a 'universal substance', a kind of fluid form that will then enable us to design the house from the inside-out by being capable of adapting to the developing intricacies of the interior layout. The precision in these drawings is derived from the fact that they all relate to a sketch plan, which is not drawn to scale, but is correctly proportioned. This is, once again, reminiscent of Aalto:

the sketches proceed in the manner of an *esquisse* in which the plan generates a logical progression of views. Each succeeding iteration in plan, section, elevation, and perspective allows Aalto to refine his conception of the object.<sup>15</sup>

These drawings demonstrate a rational logic in the way they proceed from the testing of a plan on the site and the way they utilise design precedent. They also, however, clearly show the operation of a separate logic of practice that is more instinctive and habitual, relying on the practical experience of designs previously made. This logic is embodied in the act of drawing; it is, as Bourdieu describes it: 'embedded in the agents' very bodies in the form of mental dispositions, schemes of perception and thought.'<sup>16</sup>

## **Sketch Development**

The initial idea sketches form the basis for a series of more detailed drawings that were presented to the clients. These plans (Figs. 2 and 3) were freehand, but drawn to scale, and were the product of a process of overlays using transparent paper. They are principally concerned with the arrangement of rooms and spaces. They show options and were used to begin the discussion with the clients. Both versions take the idea from the initial sketches about making an entrance court on to the laneway. This provides access to a small entrance hall or lobby, before opening into the main

hall containing the stairs to the first floor. In both versions the main living room is located at the west end of the house opening out to the garden. The plans show alternative arrangements of the kitchen, dining room and playroom in relation to this living room. The first version (Fig.2) also shows a number of bedrooms on the ground floor.

Although these are freehand drawings and were made quite quickly, they are precise and contain a lot of information about the domestic spaces being proposed. Wall thicknesses are indicated, as well as doors and windows. Furniture, such as beds, sofas and tables are also shown. This is further evidence of the logic of practice at work. Our continuous experience of designing domestic space allows us to imagine the inhabitation of the house even at this early stage. The process of drawing is instinctive, enabling the layout of a bedroom or a kitchen to be made relatively convincingly in a very short period of time.

The fact that the client was my brother and we had grown up in the same house meant that the experience of this previous domestic space underpinned the discussions. This house, located in the outer suburbs of Dublin, was a single-storey house constructed in the 1960s and designed by our father. The memory of this house contributes in a number of ways to the later project. The living area of our childhood home was organised around a central brick fireplace, acting as the focus for domestic life. This became a crucial element in the eventual organisation of the new house. The previous house was a timber frame construction, with brick used both outside and inside and with timber windows. These materials were gradually incorporated into the design. And both houses are characterised by a constant connection between interior and exterior space, using sliding and folding screens to allow easy access in and out. This shared personal history inculcated a common perception of domestic space that made the design process easier, but also to some extent predetermined the outcome. This illustrates Bourdieu's description of 'habitus':

As an acquired system of generative schemes, the habitus makes possible the free production of all thoughts, perceptions and actions inherent in the particular conditions of its production...and only those.<sup>17</sup>

These sketch drawings were continuously worked over in response to comments and criticism from the clients, testing alternative arrangements and trying to find the best fit between their requirements and the demands of the site. At this stage we also began making computer drawings, giving a further level of precision and enabling us to more quickly make sections and elevations. Throughout this process the developing design was also tested through a series of study models that were placed into an overall site model. This enabled us to work with the form of the house at the

same time as trying to elaborate the plans. The design work was increasingly defined by a rational logic of dimension, functional requirements, regulations and budget. This intensive period of development resulted in a set of drawings that could form the basis for a planning application.

### **Detailed Development**

The next critical stage of the project involved the making of a large series of drawings to enable us to get prices for the construction. The planning drawings were further elaborated to resolve the construction and the detailed arrangement of furniture and fittings. This process involved a very close working relationship with the clients as decisions were made about materials and finishes, as well as about the precise way in which the house would be inhabited. The 'loose-fit' and 'fluid' beginnings of the project were now replaced by an examination of the particular. Drawings were made of a study desk and its relationship to a corner window, or of a piece of storage for the playroom; responding to as well as informing the increasing complexity of the brief.

In order to aid and direct this detailed discussion we also made a series of perspective sketches of the spaces of the house (Fig.4). These enabled all the agents to more effectively imagine the rooms and to test the decisions being made about finishes and fittings. These drawings were set up using a computer model, but were then drawn over by hand. This allowed for the addition of human figures, furniture and shadow, giving a more complete image of the speculative domestic life. At the same time these perspectives retained the abstract quality of drawings, not mimicking the real, and left it to the imagination to conceive the constructed space. The making of this series of drawings ensured that both the clients and the architects had a strong understanding of the spaces being proposed and meant that very few changes were required during construction.

The final version of the ground floor plan (Fig.5) shows the outcome of the process. A number of the aspects of the initial sketches still remain, including the entrance court and the staggered arrangement of the south façade. The plan is loose and unusual in its geometry, but retains many aspects of a familiar Irish domestic arrangement. It is essentially a plan of hallways and rooms, maintaining the privacy of individual rooms by only providing access from a circulation space. This arrangement only changes on the ground floor for the living, kitchen, dining room and playroom, where the contemporary desire for open plan living spaces allows for a different layout. The house, in its final form, works closely with an established life pattern, rather than trying to imagine a new way of living.

## Conclusion

In his book *Outline of a Theory of Practice* Bourdieu describes how our personal experience of home inscribes our thinking and perceptions:

Inhabited space –and above all the house – is the principal locus for the objectification of the generative schemes; and, through the intermediary of the divisions and hierarchies it sets up between things, persons and practices, this tangible classifying system continuously inculcates and reinforces the taxonomic principles underlying all the arbitrary provisions of this culture.<sup>18</sup>

This begins to explain why the design of domestic space is so resistant to change. The personal histories of the principal actors – the client and the architect – have a continuous bearing on the process and shape the discussions that take place. This previous experience is also embodied in the architect and manifested in the physical act of drawing. This, in turn, can determine the outcome of the process:

Architecture proposes a transformation of reality carried out by abstract means. But the means of representation are never neutral, never without their own shadows.<sup>19</sup>

The resistance to change cannot only be perceived as negative. The resilience and continuity of domestic practices and spaces is desirable, especially in the context of huge change in other aspects of our lives. Nevertheless, there have been enormous changes in contemporary lifestyles and in the nature of households and these are not reflected in the design of domestic space. The 2006 Census showed that of the approximately 1.6 million households in Ireland at the time only 38% were couples with children. At the same time the vast majority of our housing stock consists of three or four bedroom houses that are designed for families. The design of our homes has failed to keep up with the transformation of society in the past fifty years.

By paying close attention to the design of domestic space and to the way in which it is shaped by both our existing and historic culture, as well as by the culture of architectural drawing, a path can be suggested towards a reflexive practice that can respond more adroitly to contemporary lifestyles and requirements. The interplay between thinking and drawing, imagination and realisation, theory and practice, is always complex, but forms the basis for the projection of our domestic futures:

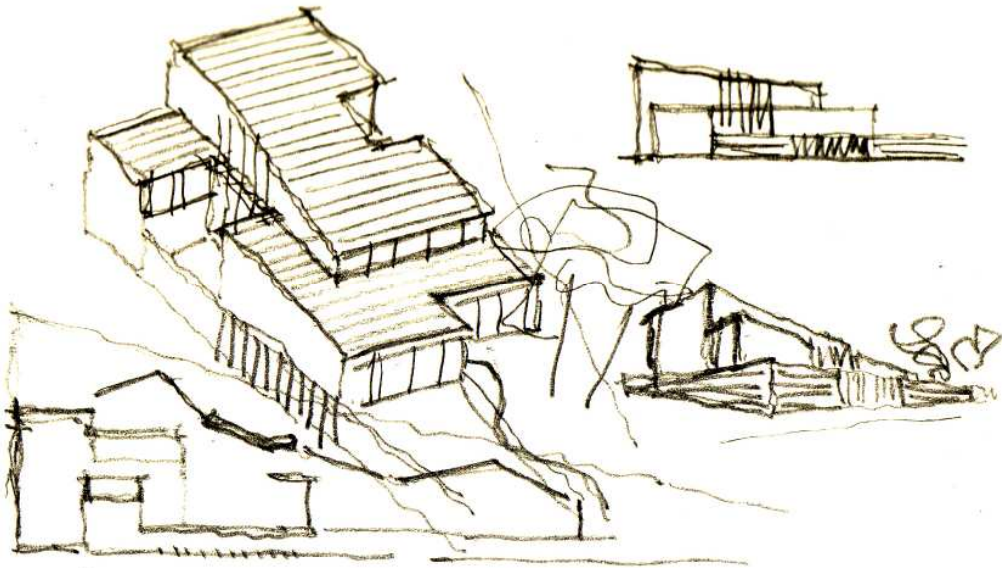
What connects thinking to imagination, imagination to drawing, drawing to building, and buildings to our eyes is projection in one guise or another, or processes that we model on projection. All are zones of instability.<sup>20</sup>

## Notes

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- <sup>1</sup> Ernst Gombrich, *Art & Illusion*, (Princeton NJ: Princeton University Press, 1969), p.173.
- <sup>2</sup> Irene Cieraad, (ed.) *At Home: An Anthropology of Domestic Space*, (New York: Syracuse University Press, 1999), p.3.
- <sup>3</sup> Ibid., p.7.
- <sup>4</sup> Pierre Bourdieu, *Outline of a Theory of Practice*, (Cambridge: Cambridge University Press, 1977), p.90.
- <sup>5</sup> Pierre Bourdieu, *The Logic of Practice*, (Cambridge: Polity Press, 1990), p.56.
- <sup>6</sup> Bourdieu, *Outline of a Theory of Practice*, p.90.
- <sup>7</sup> Tim Putnam, 'Postmodern Home Life' in I. Cieraad (ed.) *At Home: An Anthropology of Domestic Space*, (New York: Syracuse University Press, 1999), p.145.
- <sup>8</sup> Joseph Rykwert, *The Necessity of Artifice*, (London: Academy Editions, 1982), p.16.
- <sup>9</sup> Quoted in Stan Allen, *Practice: Architecture, Technique + Representation*, (New York: Routledge, 2009), p.3.
- <sup>10</sup> Robin Evans, *The Projective Cast*, (Cambridge, MA: MIT Press, 1994), p.370.
- <sup>11</sup> Allen, *Practice: Architecture, Technique + Representation*, p.3.
- <sup>12</sup> Ibid., p.xi.
- <sup>13</sup> Bourdieu, *Outline of a Theory of Practice*, p.18.
- <sup>14</sup> Quoted in Mark Alan Hewitt, 'Architects, Drawings, and Modes of Conception', in Marc Treib (ed.), *Drawing/Thinking, Confronting an Electronic Age*, (New York: Taylor+Francis, 2008), p.34.
- <sup>15</sup> Ibid., p.34.
- <sup>16</sup> Bourdieu, *Outline of a Theory of Practice*, p.15.
- <sup>17</sup> Bourdieu, *The Logic of Practice*, p.55.
- <sup>18</sup> Bourdieu, *Outline of a Theory of Practice*, p.89.
- <sup>19</sup> Allen, *Practice: Architecture, Technique + Representation*, p.7.
- <sup>20</sup> Evans, *The Projective Cast*, p.xxxi.

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## Images



*Fig. 1* GKMP Architects, *Hedge House*, *Initial Sketches*

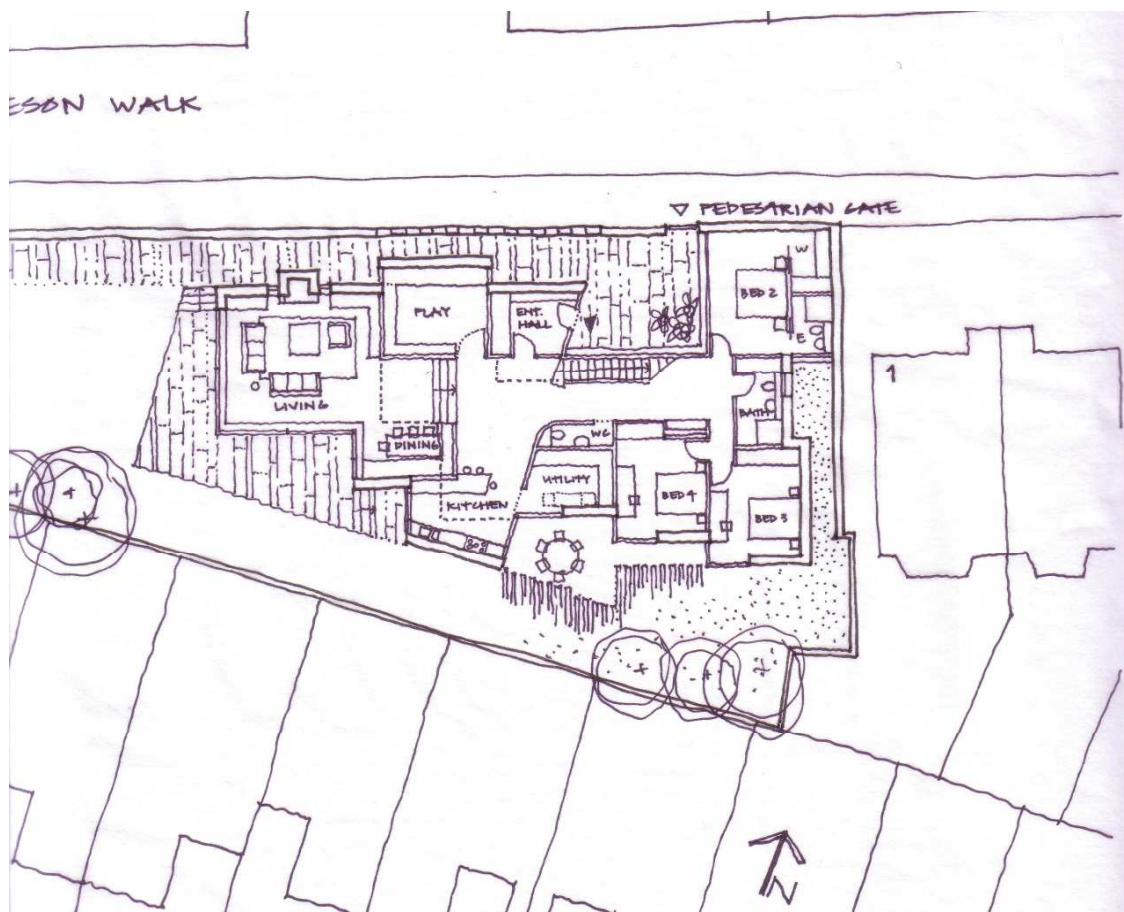


Fig. 2 GKMP Architects, Hedge House, Initial Ground Floor Plan

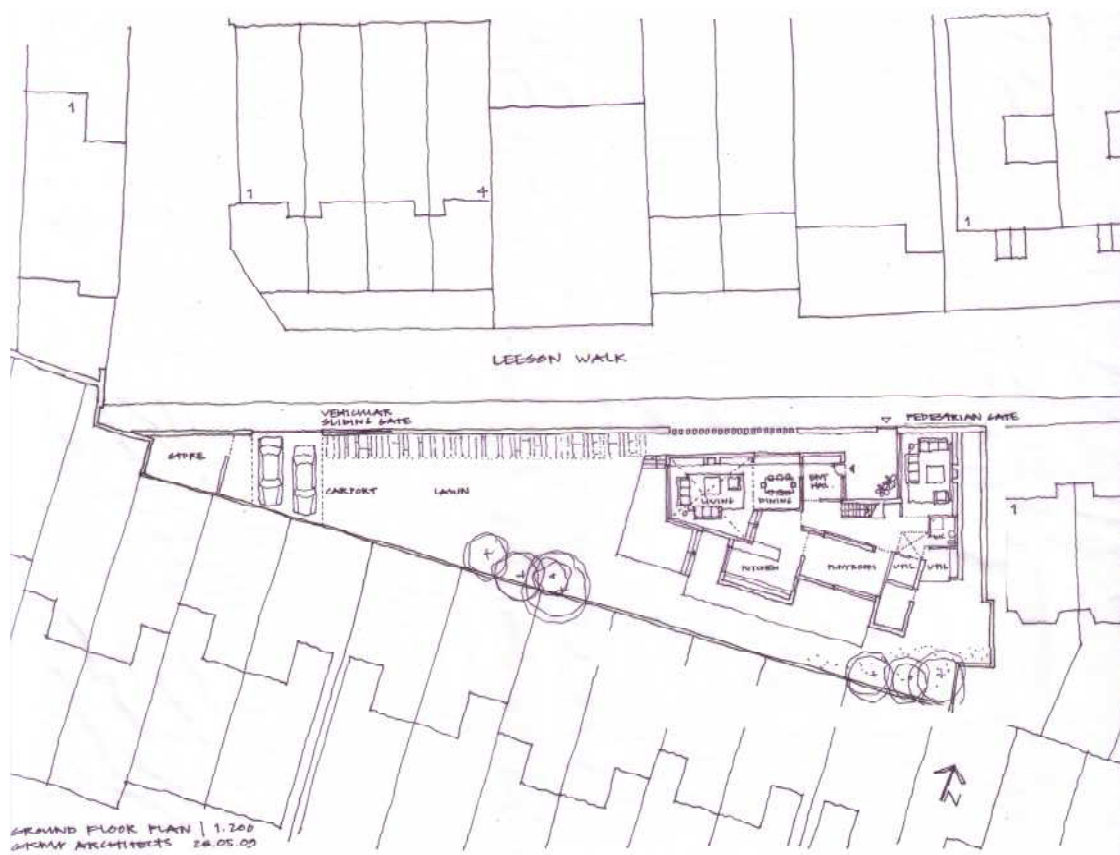


Fig. 3 GKMP Architects, Hedge House, Initial Ground Floor Plan

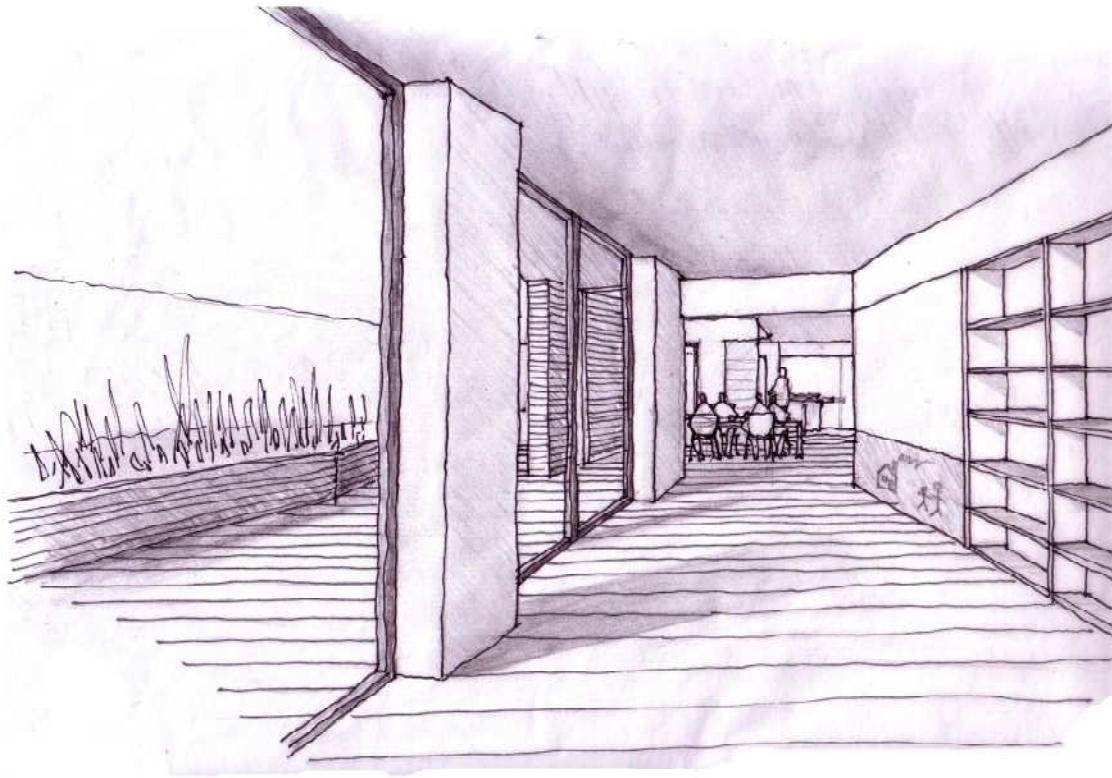


Fig. 4 GKMP Architects, Hedge House, Perspective of playroom

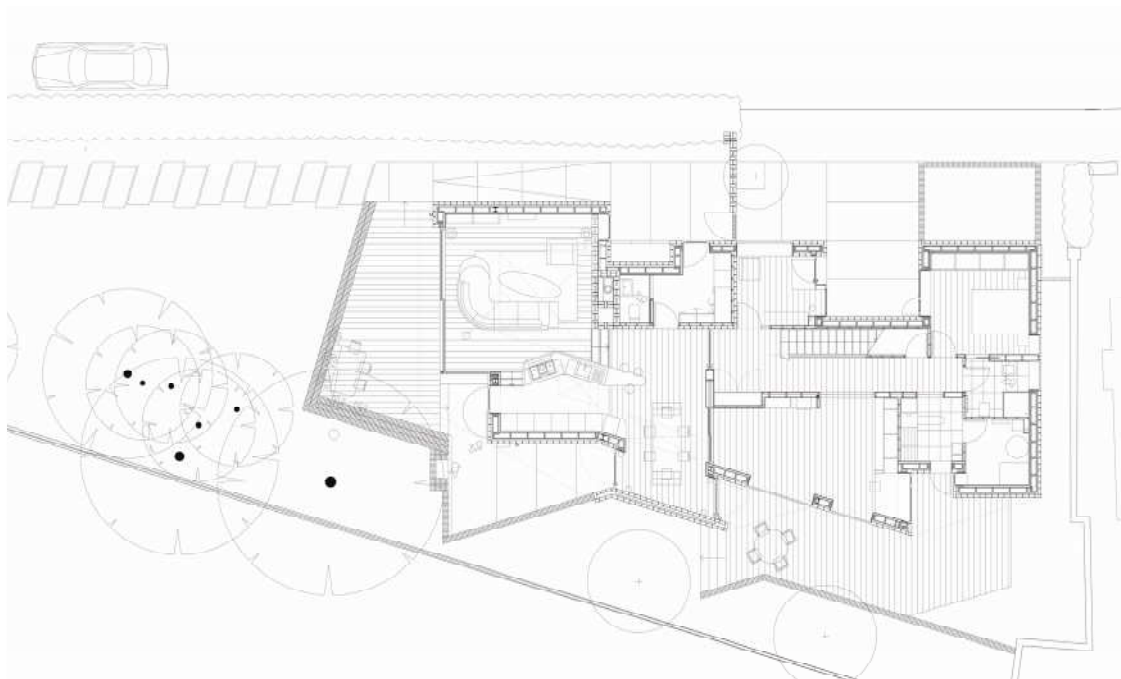


Fig. 5 GKMP Architects, Hedge House, Final Ground Floor Plan