Experiments on common grounds: Four Auckland houses by Richard Hobin (1949-1953)

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ABSTRACT: In Auckland in the 1950s a group of architecture students and young graduates were exploring innovative techniques of small scale construction. While these explorations can be seen in the context of a broader, global post-war interest in rational construction, they did appear to have a particularly New Zealand flavour; working as they were with a local light timber frame and its supporting concrete technologies. Collectively known as Structural Developments, this group was concentrated around the structural and material interests of Richard Hobin.

This paper examines four houses designed and built by Hobin in Auckland between 1949 and 1953; the now demolished Strewe house in Glen Eden, the Taylor house in Devonport, the Bryant house in Forrest Hill and the J.M. Hobin house in Point Chevalier. The examination reveals the beginnings of a life long interest in structural and material innovation, unfortunately lost to this country when Hobin left for London in 1954, where he remained for the rest of his career.

Keywords: Hobin, housing, concrete, timber

INTRODUCTION

Richard Hobin was born in Whakatane on 10 February, 1929. He attended theAuckland University College, School of Architecture from 1947-49 and again in 1951 where he "completed the course for B.Arch except for presentation of thesis"(R. Hobin 1971) His brother Harry records that he graduated with a Diploma of Architecture only in 1950 "following an intellectual dispute with his Professor" (Hobin 2009) but Richard Hobin records 1966 as the year he was awarded his Diploma of Architecture. An outline of his professional training and experience (Hobin 1992)records thefollowing:

> 1951/52 Partner in Building Firm organised by four architectural graduates. Designed and organised the construction of four factories and three houses.
> 1953Practice in Auckland. Designed and supervised the erection of further five houses and three factories.

In the short period between 1949 and his departure for London where he arrived in January in 1954, Hobin and his associates produced eight houses and seven factories.It is four of those houses that are the subject of this paper;the now demolished Strewe house in Glen Eden, the Taylor house in Devonport, the Bryant house in Forrest Hill and the J.M.Hobin house in Point Chevalier.The archival records at Auckland City, North Shore City and Waitakere City Councils were examined and compared to the built artefact. The existing houses were visited, the current owners interviewed and where possible the original commissioning owners spoken to.Further enquiry is continuing into the factories in the belief that there will be common material, structural and possibly planning strategies that will be evident and enable us to gain a better overall understanding of Hobin's work from this period.

References to Hobin's work within the historiography of New Zealand architecture to date are minimal.*At Home*(Lloyd Jenkins 2004:146) mentions his furniture in the 1952 Auckland Carnival at Western Springs; *Looking for the Local* (Clark and Walker 2001:66,73) lists him individually and as part of Structural Developments*. A History of New Zealand Architecture (*Shaw1997) does not mention him, personally, at all though it does refer to Structural Developments but only in relation to John Scott's involvement. This paper situates him as a contemporary of the better known, post war architectural radicals referred to as the Group but explores Hobin'swider material and construction interests.

There was a shared belief amongst thesepost-war contemporaries that the New Zealand construction industry was out of date. They proposed rational planning, efficient structure and efficient construction processes as the means to

reconstruct the industry. It was in this climate that Hobin and his graduate collaborators were exploring materials and methods of construction that produced “low cost architect-built houses.” (Clark and Walker 2001:65)

1.STREWE HOUSE, GLEN EDEN. (MAY 1949)

Figure 1 Strewe House, Glen Eden,1949 (Strewe Family Archive)

The Strewe house was designed by Hobin while he was still a student. An article in the *Australian HOMEMAKER*, August 1954 describing the house was titled “All this for 800 pounds: modern plan fit for a family.” and used the by-line “Economical building methods and materials give this New Zealand home low-cost beauty with an indoor-outdoor feeling”. Strewe was a landscape architect and the house was used by him to advertise the currency of his landscape practice. The dominant images in the article feature plant material, located both inside and outside the house, reinforcing the modernist idea of spatial flow that was being taken on by the newly emerging profession of Landscape Architecture.The first sentence of the article (Neilson 1954). follows this landscape theme but then moves to more architectural concerns.

> Mr and Mrs Strewe, a young couple with three children,believe in functional living and they have designed their home along these practical lines. Economy was the ruling factor when the house was built by Mr Strewe (p.23).

First, the stated emphasis is on those qualities of the project that would attract the readership of the magazine. These are also the qualities promoted by architectural modernism’s social project; the goal of design that results in functional, practical,economical building. The text articulates these ideas and then goes on to describe their application in this particular house.

> Plan is divided into two spacious units cutting out unnecessary uprights. Butterfly roof covered with malthoid, bitumen and pebbles slopes to one side by one inch in 25. No guttering is required. The beams are exposed so that no ceiling lining is necessary and the outside is covered with ship lath laid vertically, waste oil being used as stain. Frames for the windows are lightweight; the principle of Japanese building used allows light walls but strong corner posts to hold the roof. Fixed glass panels have been used on some walls as Mr Strewe maintains this is cheaper than other building materials. The main area has been floored in concrete, the other pine, resting on 3”X2” on scoria (p.78).

The emphasis in this paragraph is on structure and construction. Strewe would have had an interest in these matters, because he was building it and paying for it, but he had no expertise or formal training in these areas. While it appears to be Strewe who is giving the information to the journalist (his name is mentioned in the text) it is my opinion that he is articulating issues received from architecture and in particular Richard Hobin. Hobin is not acknowledged in this article. In fact Mr and Mrs Strewe seem to claim authorship of the design. (Neilson 1954:23). But we know that Hobin was the architect for this project. It has been acknowledged by Mrs Strewe in conversation with the author (Strewe 2006, 2010) and corroborated by Hobin’s brother Harry (Hobin 2009). However the route to publication of the house may have been orchestrated by Strewe as an interior photograph does appear in an earlier article,in the magazine*Australian HOUSE and GARDEN* in March of 1954. In this earlier article the focus is the indoor garden and the image of the interior is titled “Tropical palm against a modern mural is dramatically decorative”(Dunn 1954;22). Ironically in an article privileging ornament the Architect of rational structure is this time acknowledged. Examination of this episode does point out differences in attitude, between client and architect, towards other roles for the building.

Clearly for the Strewe family it was their home but additionally for Odo Strewe it was an exhibition building. Strewe's background in Germany was in advertising publishing. He was adept at operating in this milieu. He was the author of a series of regular articles on landscape architecture (predominantly descriptions of his own work) published in *NZ Home and Building* from July 1951 through to September 1952.It would have been his initiative that generated the first publication in the *Australian HOUSE and GARDEN* where the interest is in the landscape and it would be why he fronted the later article as the 'homemaker." Hobin, on the other hand,does not appear to have written about his work at all during this period. Additionally, by the time of publicationin the Australian HOMEMAKER, August 1954, Hobin was already in London.

If Strewe saw the house as an exhibition building,Hobin I believe, would have had a slightly different take on it. He would have seen the house as an experimental building. In 1949 the butterfly roof formwas not part of the standard house form vocabulary in New Zealand. Its presence in this building suggests knowledge of contemporarytrends in other parts of the world. Like all inquisitive architecture students, Hobin would have been aware of the work of former Bauhaus teacher and architect Marcel Breuer who had moved to the United States in 1937. Around 1943 Breuer had been experimenting with what he called the "binuclear house" where there was clear separation in both planning and formal terms between living(public) and sleeping (private) zones (Driller 2000).

> There are two separate zones, connected only by the entrance hall. One is for common living, eating, sport, games, gardening, visitors, radio, for every day's dynamic living. The second, in a separate wing, is for concentration, work and sleeping: the bedrooms are designed and dimensioned so that they may be used as private studies. Between the two zones is a patio for flowers, plants: visually connected with, or practically part of, the living room and the hall… the patio… is the dominant impression on entering the house (p.147).

The most publicised built example of this house form was Geller 1, Long Island, New York from 1944-46. First published in *Progressive Architecture* in February of 1947 it would have arrived in the Architecture Library in the middle of Hobin's yearsof study. The Strewe house could be read as a conflation of this project and of the ideas that Breuer was exploring at the time. The Strewe house was built in two stages. The major wing containing the living areas, the main bedroom and the services was built in 1949 and appeared as a mono-pitch. At this time the Strewes had two children who for a short period slept in the uncompleted bathroom and toilet. With the arrival of their third child in 1950 they added the reverse mono-pitch giving the completed butterfly form which is seen in the magazine article illustration. While not conforming strictly to Breuer's zonal planning schema it does allow a separation between adult life and child life."…the only interior door closes off the adult space from the children's space." (Neilson 1954:78). For a house that was well known for its parties this separation was a valuable quality(Lasenby 2001: 92). The banana palm in the living room and the biomorphic mural on the adjacent wall were the space of Breuer's patio entrance now compressed which separated the living and sleeping functions. The building envelope was organised temporally to deal with changing family size rather than discretely packaging the separated functions. The Geller 1 house was an extensive and expensive house for the post-war period but it was based on a series of projects that Breuer had designed for returned American servicemen.Hobin was exploring similar planning and formal territory in New Zealand albeit on a smaller scale.

Lasenby remembers the Strewe house "with a tom holding up an ambitious butterfly roof.(Lasenby 2001: 92)He wrongly attributes the design to Group Architects and the mention of a tom incorrectly implicates the butterfly. The tom or prop he refers to was located adjacent to the kitchen bench and supported a section of the original monopitch roof that had sagged due to the use of wet timber (Strewe 2005). The rafters appear from the photograph to be eight by two (200x50mm) at approximately two foot six inch (750mm) centres and the sag in this section is clearly visible on the photographs of both stages. According to current requirements 190x45 @600mm centres(VSG10) would only span a maximum of 4.4 metres if carrying a light roof in a high wind zone. The stretch to 5 metres across the living space and the added loading of a roof cladding consisting of malthoid, bitumen and pebbles (Neilson 1954:23) understandably tested the load-bearing capacity of the rafters. The house was built by Strewe and members of his landscape team and their inexperience in domestic construction may well have contributed to this idiosyncrasy. It also brings into question the journalist's statement that "Plan is divided into two spacious units cutting out unnecessary uprights."(1954:23)!

The article refers to structure again when it states "…the principle of Japanese building used allows light walls but strong corner posts to hold the walls."(Neilson 1954:78). It is not clear when examining the building what this refers to. The plan is divided into three uneven structural bays, their dimensions changing according to the activity contained. Framed walls run front to back along these lines of division. The end walls are clad on the exterior with vertical boards and appear to be lined with a sheet material on the interior, possibly plywood. The intermediate wall between the living space and the children's bedrooms is clad on one side with diagonal boarding, presumably to provide some bracing capacity and the part wall behind the space heater is clad with sheet material probably asbestos cement to provide bracing and fire resistance. The only apparent posts run along the front of the building and support beams which hold up the roof as it extends over the patio. While it is true that the joinery elements for the full height front wall were assembled as independent units and slotted into the large openings the primary structural system is that of framed walls running north-south with the roof structure laid at right angles. The description of the structure as following "the principle of Japanese building" (Neilson 1954:78) seems upon examination to be a romanticised version of what actually happens.

The use of diagonal boards to provide bracing is also utilised in a panel between the joinery units on this front wall further reinforcing this idea of the braced frame. What is interesting in this regard is that, in the roof plane, the sarking boards are at right angles to the rafters. There is no attempt to use the strategy of diagonal bracing on this plane already used on the walls and used contemporaneously by parallel innovators Group Construction.

Under the floor of the children's bedroom wing Hobin attempted to push the performance boundaries of timber as an embedded sub-floor structure. This section of the house had pine tongue and groove flooring "resting on3x2s on scoria"(Neilson 1954:78). New Zealand has a tradition of using timber in direct contact with the ground but the timbers are either particularly durable for example puriri or more recently chemically treated to preserve them. Here it appears Hobin was relying on the draining capability of the scoria to maintain the timber. There are more questions than answers in this action and it would be revealing to see a section through this floor. Were the 3x2s soaked in any additional preservative like the waste oil used on the wall cladding? What strategies were used to transfer the load from the floor to the ground without compacting the scoria? Examination of a photograph in the Strewe family collection(~1951) shows the house with the children's bedrooms section partially framed. It appears as if a concrete foundation wall has been poured to take the exterior wall framing. This wall would act to contain the scoria and prevent it's horizontal movement but we do not know if there were similar attempts to prevent its vertical movement and we do not know how long this floor lasted.

"The sink is black plastic, bench black linoleum;.."(Neilson 1954:78). Richard Hobin's father was one of the founders of Clearlite Plastics and at the time of design Clearlite were operating from premises in Great North Road just up the road from the Strewe site. After World War II plastic was seen as the "dream material of the time….A house, any house can be turned into a dream house simply by filling it with the dream material" (Colomina 2004:32). Richard Hobin, I am sure, did not subscribe to this consumerist fantasy but this experiment was certainly in his father's interests. The double black sinks,however, did not last long. Within a year one had developed a split and was disposed of. There is no record of Clearlite having pursued this dream!

The Strewe house was designed by Richard Hobin while he was still a student. I believe it was strongly influenced by the work of Marcel Breuer, his early bi-nuclear house types and his work to provide models for housingfor servicemenreturning from World War II. Hobin used these exemplars and translated them into a dwelling form that was scaled to New Zealand social and economic conditions. But Hobin's interests extended beyond the issues of planning and architectural form. His attempts to stretch structure, to test subfloor construction techniques and to use new materials in this project are the beginnings of a period of investigation into the construction of the New Zealand house that will last for too short a time.

2. BRYANT HOUSE, TAKAPUNA, (JUNE 1952)

The New Zealand Department of HousingConstruction, formed in 1936, was charged with improving the provision of public housing.They were experimenting, during the 1940s, with pre-cast flooring systems and structural members and with a system of "no fines" concrete that they claimed "may be able to compete on even terms with ordinary timber wall construction for one-storey houses." (Firth 1949:44) Their Dixon Street flats feature in *Concrete Quarterly* #2, 1948 and subsequent issues of this magazine cover pre-cast panel house systems in the UK (#3 January 1948 and #5 July 1949). The urgent need for post- war housing opened the way for new materials and techniques and this work was being reported in publications of the time.

Richard Hobin,too,was interested in concrete and the ways in which it might be used.The Bryant house is two storeyed and sits on a rectangular base of concrete perimeter walls. George Haydn credits Hobin with being "the first one to design a lift slab wall" (AAA 1982: 3). The next door neighbour recalled that first attempt at construction and howthe weight of the walls proved too great and they were not able to be lifted. (Smith 2010) The question that remains in this version is what happened to these walls? Anecdotal evidence suggests they were then poured vertically in situ but the existing finished walls show no evidence of any timber formwork and have a very dense smooth finish resulting from either steel forms or an applied plaster finish. The garden shed may give some clue.It has been plastered and the weathering detail at the junction between wall and floor depends upon plaster overlapping the edge of the slab by 50mm.

The floors of both the ground floor of the dwelling and the garden shed are concrete. The dwelling has hardwood parquet remaining in the laundry. This flooring finish was also present in the double height volume but we understand was removed by a previous owner. Although the original drawn section shows it throughout the house there is no evidence to suggest that it ever was laid in the kitchen or bedrooms. Hobin seems to acknowledge in both these projects, Strewe and Bryant, that bare concrete is not a suitable floor finish.

The upper level mezzanine floor is three inch (75mm)on edge mill flooring spanning eight feet (2400mm)) between the nine by four (225x100mm) beams that run from interior posts at the edge of the mezzanine out over the concrete front wall to rest on galvanised steel pipe columns just inside the edge of the balcony above. The mill floor is exposed on the underside and used, painted, as the ceiling surface in the spaces below. The original drawings show the mill flooring to continue as exterior decking but the current deck uses a fibre cement board supported on hit and miss one inch (25mm) boards. The Taylor house built in the same year uses the mill floor technique both inside and on the deck but spaces the boards outside to allow the water to drain from the surface. This system would seem more in

keeping with the structural rigour evident elsewhere in the project and I would suspect that the fibre cement board was later revision.

The roof plane is mono-pitched rising to the east. The roof structure uses the same eight foot (2400mm) grid as the floor but the roof beams are logically reduced to a single nine by two (225x50) to acknowledge the lighter loading. The purlins, four by three at eighteen inch centres (100x75mm at 450mm centres), support the corrugated asbestos roof cladding on the topside and the rimu plywood lining is attached directly to their underside. In the case of both the mezzanine floor and the roof the architects are reducing the element to a single plane.

Downstairs this eight foot (2400mm) structural grid became the planning driver. The double height space to the westremained undivided as a dining room and family room. The rooms under the upper level are all eight feet (2400mm) wide and run in sequence from north to south: kitchen, bathroom, bedroom, bedroom. An open tread timber stair originally ran from north to south to give access to the upper floor living area. The main bedroom was to the north accessed from the living space and protected from it by a part height wall in plywood. Subsequent owners have tended to reverse this sequence locating the living area on the north wall and the bedroom on the south. They have also increased the glazing and added a deck on this north wall suggesting the architects'belief in the dominance of the structural grid as a planning driver and the easterly harbour view orientation of the spaces was misplaced. The vertical separation of the parent's area (their bedroom and the more formal living room) in this project allows the childrens' bedrooms to open out into the family room and dining area. Thisorganisation of the spaces prevents the separationbetween the children's play area and the living/ dining sequence that occurs in the Strewe house and in Breuer's bi-nuclear houses and which has been criticised by many commentators.

The North Shore City Council holds no record of the original project. The current owners have an upper floor plan and a cross- section which they have generously allowed us to copy.The drawings record the names R.Prince and R. Hobin as architects suggesting, if we take note of Hobin's practice experience record in the introduction, that this project was done as part of the organisation known as Structural Developments. There is clear evidence in this project, in both the remaining drawings and the anecdotal evidence of the period (AAA 1982:3), that Structural Developments were experimenting with tilt slab construction and pursuing a goal of efficient structure and material economy.

3. TAYLOR HOUSE, DEVONPORT (SEPTEMBER 1952)

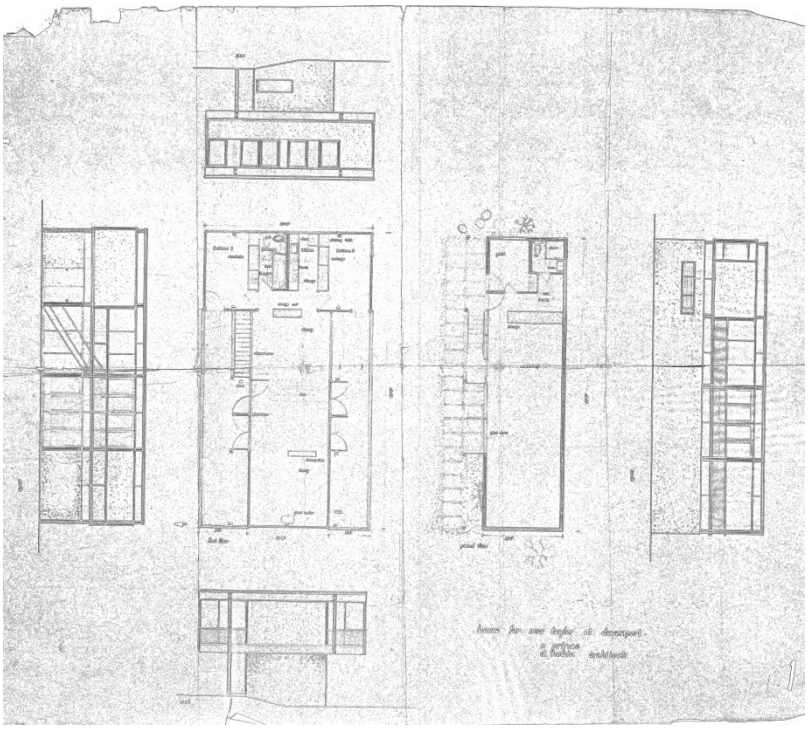

Figure 2. Plan and Elevations, Taylor House, Devonport, 1952. (Source: NSCC)

Built in the same year as the Bryant House, the original drawings also feature the names of both Richard Hobin and Renate Prince. Mrs Taylor had been living with her son in "a great oldhouse" (Auckland Star 1953) on the front part of the site but decided to "go modern" and directed Hobin as follows:

> I want a house tall enough to look over other roofs so that I can see the harbour….I want the living quarters all on one floor, plenty of sun and fresh air, with housework cut to a minimum.

The living quarters that Mrs Taylor requested comprised two bedrooms sandwiching the kitchen and bathroom all located at the east end and running north-south.At right angles to this group,extending to the west, is a long sequence of dining room, sun room and living room. The house is divided rigorously into 4 sections in a similar way to the Bryant house. The functions are contained within these cells and the degree of transparency of the building envelope changes markedly from cell to cell and can be read very clearly on the building's exterior. On both long elevations, the two centre spaces on the upper floor(dining room and sun room) are fully glazed floor to ceiling while those at the ends have only high lights. The only variation on this pattern upstairs is in the south-east corner where it is broken open to provide a view of Mac Taylor's yacht mooring. On the ground floor this pattern remains the same for the north elevation where the workshop area gains light and sun through full height glazing but on the south side there are no openings except for a strip window which lights and ventilates the laundry, toilet and bathroom.

It is interesting to note the use of the developed elevation to represent this project and in fact the error in the representation. The south elevation on the right hand side of the page is laterally inverted. This elevation is the only one of the four that does not follow the convention. It has been turned up side down presumably to aid the three dimensional reading of the project. The ground floor window and the symmetry disturbing first floor window in Mac Taylor's bedroom should be shown on the right hand end of the elevation. It is as if the draftsperson has been fooled, drawn to this error by the adjacency of the window in plan. The bigger question remains however. Why are they using this unusual technique to represent the building when it is a technique that is usually used for interiors? Does this technique reinforce the object like nature of the building because the elevations surround the plans like wild- west wagons separating the building from any context?To support this assertion there is the fact that there is very little information on the drawings that acknowledges the context – a ground line on each elevation and six plants adjacent to the ground floor plan. The plants do not appear on the elevations. They have no three dimensional presence on the drawings. The elevations are groups of spare lines; abstract compositions,their purity only occasionally compromised by the idiosyncrasies of function and habitation.

The rigour manifest in the elevations is generated by the structural system.Fifteen by four (370x90mm) oregon beams run north south at twelve foot centres (3600mm) across the top of the six inch (150mm) reinforced concrete walls. The beams cantilever, asymmetrically, by eight foot six inches(2560mm) on the north and six foot eight inches (2030mm) on the south. This pattern provides the structure for the first floor. Again, like the Bryant house, the interior floor is a mill floor system but this time the bigger span of twelve feet (3600mm) required four by two members. The decking is made from three by two (75x50mm) members spaced apart by half inch (12mm) gaps to allow the water to drain. While the interior flooring is glued together to form a solid plate, the decking is connected by timber spacers at two foot (600mm) centres that act to both provide a regular gap for drainage and to provide enough structural cohesion. There is no information on the drawings about the nature of the fixing technique but the existing deck shows no hint of failure. The only evidence of owner concern is the additional row of posts under the front edge of the deck on the north side suggesting that there may have been some sag in this large cantilever.

The roof unlike the Bryant house is not intended to be read. The drawings show it as a perfectly flat plane. A note attached to the specification and titled "roof structure to replace laminated roof panels shown on drawings" (NSCC 1952:4124) indicates, perhaps, that a more radical solution (mill flooring with no requirement for additional lining top or bottom?) was intended. The specification records the roof cladding as "3 Layers 3 ply bituminous asbestos fabric in hot bitumen…Finish with ¼" layer of well rounded sea shell chips"(NSCC 1952:4124). The original documentation suggests the architects were trying to get this element as thin as possible.

There is another additional item in the NSCC records. It is a drawing titled "additional details Taylor house". On the right hand end it has a broken section of the base wall showing dimensions, embedment and reinforcing but it is the three images on the left hand side which are the most fascinating. Another broken vertical section shows a fibrolite sheet fixed top and bottom to a three quarter inch by one and a quarter inch (20x30mm) bead with a metal angle. This bead in turn is fixed at the bottom a solid (interior) section of the mill floor and at the top to a six by two inch (150x50mm) top plate. The adjacent drawing, a plan section through this element, shows that the fibrolite sheet is in fact corrugated with a layer of plaster each side, three quarters of an inch (20mm)on one side and half an inch(12mm) on the other. The third drawing is an elevation showing chicken mesh fixed to the corrugated sheet. What is evident from the examination of these drawings is that here was another attempt to reconfigure the exterior wall of this project. We do not know the extent intended for this drawing and there is confusing information. The top plate shown is also the same size as the balcony rail and the orientation of the mill flooring indicates this detail would occur down the long side of the building. There is no evidence today of this construction.

While the original drawings feature the names of Prince and Hobin as architects, the specification for the project (NSCC: 4124) records *Structural Developments, Architects and Builder, 37 B.T. Devonport.* This is the first primary evidence of this entity and also recognizes themas the builder. The significance of the builder as singular could suggest that while Prince was clearly involved in design (the drawings record her name as an equal contributor), as a women, she was not involved in construction. But that may be reading too much into it because we know from George Haydn (AAA 1982:2) that Henry James, Frank Stockman and also John Scott (Rogers 1986) were members of this entity. Bill Roger's 1986 undergraduate sub thesis records Scott as having worked for Structural Developments 1951-52 which could include the construction period of this house which gained a Building Permit on 4th September 1952(NSCC 4124:1). Scott then worked for Group Architects (1952-53) and later returned to Haumoana. His plan for the Goodeve and Pudney house, Maraekakahou Road, Hastings (1955) bears a strong resemblance to the plan of

the Taylor house with the bedrooms and service spaces clustered at one end and the dining /living area projecting forward and the verandah wrapping around that.

Today the Taylor house sits on its back lot in Devonport, its view of the harbour compromised by the development that has taken place around it. In 1952 it was a house made for the particular needs of the Taylor family but it was also the site of investigation into the production of architecture.

4. J.M. HOBIN HOUSE, POINT CHEVALIER (SEPTEMBER 1953)

Overlooking a mangrove forest in the Auckland suburb of Point Chevalier, the house for his father J.M. Hobin was granted a Building permit on 10 September 1953. R Hobin is recorded as the builder and his address is given as 89 College Hill, Ponsonby which was also the address given for his father. In 1950 Clearlite Plastics had moved from their original premises in Great North Road to a new building designed by Richard Hobin half way down College Hill. It appears at this time that both father and son were living about one hundred metres up the road. ACC records show earlier dates for the drawings. An A1 Site Plan is dated March 1953 and an A1 sheet containing a floor plan and plan section details is dated 2 June 1953. There is only one name on the drawings R. Hobin and scrawled in pencil above the architect's name on the floor plan drawing is the address 37 Bartley (undecipherable) Devonport. So the record seems to show that Hobin was now operating on his own, both as architect and builder.

The PARTICULARS OF BUILDING section on the BUILDING APPLICATION FORM showsa strong material bias. "Foundations: reinforced concrete, Floors: concrete, Walls: concrete, Roof: asbestos cement" (ACC 1953:707). Concrete foundations and floors were considered conventional but concrete walls were not. The material reality is less clear cut. The house stretches east –west along its site. A low pitched hipped roof covers the simple rectangular volume and extends to the edge of a verandah which wraps around the whole building. The concrete walls are located in the south-east corner, along the enclosed section of verandah on the south and at the western end. The concrete walls constitute only 42% of exterior wall length.None of the interior walls are concrete.

Hobin's interest as noted earlier is in the ability of the material to be formed on site and lifted into position. Richard's older brother Harry (Hobin 2009) comments:

> This was an early innovation whereby the exterior and interior structural walls were individually cast on top of the concrete floor. They were then lifted into position. I think the concrete included an additive to lessen the weight. Some may have been prestressed, which was another of his interests.

The quote highlights two issues. While the Taylor house sidestepped the issue of how you tilt up the slabs by placing it in vertical formwork, at the Hobin house he seems to have developed a lifting technique and revised the concrete materially to lighten its weight. Secondly the technique of prestressing the panels is mentioned.These innovations were the product of the 1950s, a period that saw an increased interest in concrete construction techniques (Wymer 2005).

> This was a time of great hydro-electric development, lasting for some 20 years, when a vigorous effort was made to meet the growing demand for electrical energy and to overtake the backlog of building which had developed over the war and immediate post-war years (p.6)

Morley Sutherland was an Engineer who had a strong interest in prestressed concrete and it is he who is credited with introducing the prestressing techniques that were used on the Benmore Power Station penstocks. (Wymer 2005:7) Sutherland is the figure that Marshall Cook asserts is the source of Hobin's interest in the potentials of concrete.(Cook 2010). He was an enthusiastic advocate of prestressed concrete and he was employed, in the early 1950s, by the founder of Certified Concrete, Sandy Cormack, to "promote the concept of prestressing throughout New Zealand." (Wymer 2005:7). He was also a member of the vibrant art scene that included Odo Strewe, Bill Wilson, Rex Fairburn and Frank Sargeson. It should also be noted that Renate Prince lived in the army hut at Frank Sargeson's property in Esmonde Road, Takapuna from mid 1951 until she left for Europe in July 1952 (King 1995:315, 320). I could imagine that within this social milieu the possibilities of concrete construction were poetically and enthusiastically explored.

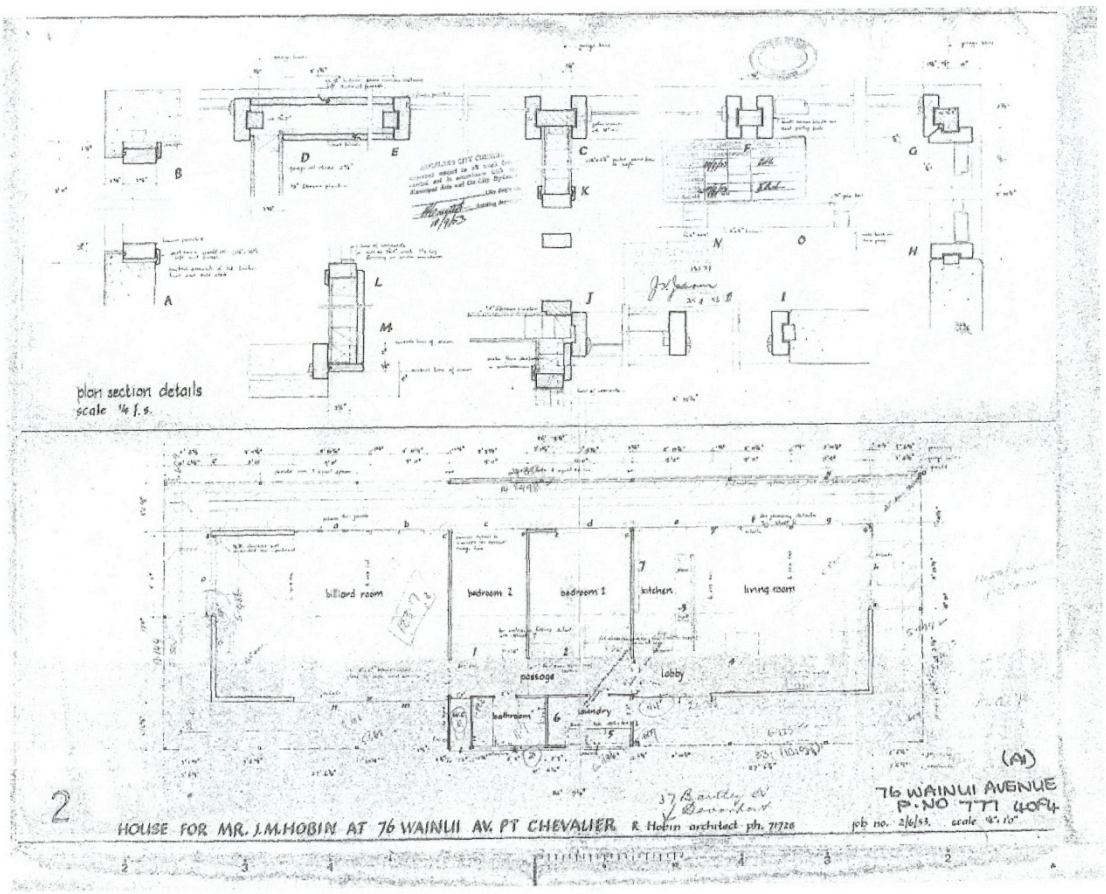

Figure 3 J.M. Hobin house, Point Chevalier, 1953 (Source: NSCC)

While the Building Permit application records a strong concrete bias the drawing, Sheet 2(ACC 1953:707), reveals a more complex engagement with that other ubiquitous material of New Zealand building culture: timber. The lower half of this A1 drawing is a dimensioned floor plan. The upper half contains nine “plan section details” which describe the ways in which timber joins to concrete and timber joins to timber. These are laid out on the page in relation to their position on the floor plan below. At the Bryant and Taylor houses the concrete was used as a basement, a kind of podium to gain the view. The J.M. Hobin house, however, has an unobstructed view, is single storey and is predominantly glazed in timber sections around the front half of its perimeter. These detail drawings show Hobin organizing the timber to timber junctions in a manner influenced by same keying system that he uses in his timber to concrete junctions. It results in relationship between glazing and structure that are complex - where structure is reduced and then assisted by the glazing sections so there is no easy reading of either.

The house has been significantly altered over the years and the clarity of its original form is now barely recognizable. But the central portion remains and shows off the clear raking plane of the natural shiplap timber ceiling and the careful detailing of the wardrobes with glazing above that softly lights this internal passageway .

CONCLUSION

Richard Hobin arrived in London in January 1954. He had studied architecture for four years and had been involved in the design and construction of a significant body of work in New Zealand since 1949. The four houses we have examined show a clear interest in thepost-war issues of planning and form that were consuming architects around the world. But more importantly they demonstrate a young designer whose fascination with the discipline is broader. Hobin was exploring the possibilities of material and structure. He was exploring the possibilities of technology to produce buildings using the common materials of the local building industry but combining them in new untried ways. In the Strewe house in 1949 he stretches the timber roof structure beyond its limits and experiments with sub-floor structure and the new material- plastic. The idea of floor and roof planes becoming flat laminated plates is tested in the Bryant and Taylor houses in 1952. Concrete becomes the material of focus in these two houses as Hobin tries and fails with an early tilt-slab technique before he finally perfects it in the house for his father in Point Chevalier in 1953. If his contemporaries Group Construction/Group Architects were known as the “timber boys” then Hobin would have to be the “concrete boy.”

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