# Recommendation of the Executive Director and assessment of cultural heritage significance under Part 3 of the *Heritage Act 2017*



Name Futuro House (Formerly of South Morang)

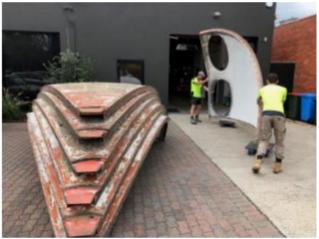
**Location** During the period of assessment this object was disassembled and moved

from at 360 McDonalds Road, South Morang into storage.

Category Heritage Object

Hermes Number 197960





Futuro House assembled at its former South Morang location (Photo: March, 2018)

Futuro House after being disassembled and moved into storage (Photo: May, 2018)

# **EXECUTIVE DIRECTOR RECOMMENDATION TO THE HERITAGE COUNCIL:**

That the object NOT be included in the Victorian Heritage Register under the *Heritage Act 2017* [Section 37(1)(a)].

STEVEN AVERY Executive Director

Recommendation provided to the Heritage Council of Victoria: 12 July 2018

Recommendation publicly advertised and available online: From 20 July 2018 for 60 days

This recommendation report has been issued by the Executive Director, Heritage Victoria under s.37 of the *Heritage Act 2017*. It has not been considered or endorsed by the Heritage Council of Victoria.

Name: Futuro House (Formerly of South Morang)

# **EXTENT OF NOMINATION**

Date that the nomination was accepted by the Executive Director: 6 February 2018

#### Written extent of nomination

The extent of the nomination includes the Futuro House structure. The Futuro structure is a movable object and the extent of this nomination does not include the land/place on which it is located.

#### Nomination extent diagram

No extent diagram is required for objects.

# **EXECUTIVE DIRECTOR RECOMMENDATION**

It is the view of the Executive Director that the Futuro House (Formerly of South Morang) should not be included in the Victorian Heritage Register for the reasons outlined in this report.

# **NOMENCLATURE**

There are a number of Futuro Houses in Australia and in other countries. For the sake of clarity, the particular Futuro House under consideration here will be called the Futuro House (Formerly of South Morang) abbreviated to Futuro House FSM. This will enable its differentiation from other Futuro Houses and the class in general. The international Futuro House Website has adopted a similar convention whereby Futuro Houses are identified by location.

See: www.thefuturohouse.com/

# **BACKGROUND SUMMARY**

# WHAT IS THE OBJECT?

The Futuro House FSM is a prefabricated fibreglass plastic portable structure circular in plan and ovoid in elevation. It is eight metres in diameter and four metres in height and made up of sixteen modular segments, connected in eight bays to create the distinctive flattened spheroid form. Each bay contains a pair of ovoid porthole windows, sealed with concave tinted clear plastic. One bay incorporates the entry door, a moulded doorway with a drop-down staircase. Designed in a futuristic style resembling a UFO, the self-contained fibreglass structure is raised above the ground on a metal pipe frame, comprising a ring-like element supported on four pairs of angled struts.

#### WHAT IS THE HISTORY OF THE OBJECT?

The Futuro House FSM was built to a design by Finnish architect Matti Suuronen. The design was developed by Suuronen in response to a private commission for portable ski cabin in 1965. The first prototype (white) had been developed by March 1968. A second unit (yellow) was manufactured and in October 1968 a third unit was included in a design exhibition in London, which generated worldwide attention. A report in the *Age* in 1970 confirmed that Australia's first Futuro House had been manufactured by an Albury-based firm known as the Futuro Corporation, the sole Australian licensee of this design. This was the Futuro House FSM. By that date it had been relocated from a temporary site at Hurstbridge to the Apollo Parkways Housing Estate, Greensborough as the sales office for a property development company. By 1989 the structure had been moved near a Fun Park/Go Karting Track at South Morang. In May 2018 it was disassembled and moved into storage.

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# RECOMMENDATION REASONS

# REASONS FOR NOT RECOMMENDING INCLUSION IN THE VICTORIAN HERITAGE REGISTER [s.40]

Following is the Executive Director's assessment of the place against the tests set out in The Victorian Heritage Register Criteria and Thresholds Guidelines (2014).

#### **CRITERION A**

Importance to the course, or pattern, of Victoria's cultural history.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION A

The place/object has a *CLEAR ASSOCIATION* with an event, phase, period, process, function, movement, custom or way of life in Victoria's cultural history.

#### Plus

The association of the place/object to the event, phase, etc *IS EVIDENT* in the physical fabric of the place/object and/or in documentary resources or oral history.

#### **Plus**

The EVENT, PHASE, etc is of HISTORICAL IMPORTANCE, having made a strong or influential contribution to Victoria.

#### **Executive Director's Response**

The Futuro House has a CLEAR ASSOCIATION with:

- a) The process/history of building prefabrication; and
- b) Mid-twentieth century futuristic design.

These associations ARE *EVIDENT* in the physical fabric of Futuro House and/or in documentary resources or oral history.

- a) The process/history of building prefabrication IS of HISTORICAL IMPORTANCE, having made a strong or influential contribution to Victoria.
- b) The mid-twentieth century futuristic design movement IS NOT of HISTORICAL IMPORTANCE and did not make a strong or influential contribution to Victoria.
  - In Australia mid-century futuristic design was one of many strands of Modernism that contributed to the Australian design vocabulary between the 1950s and 1970s. It was not a strong or influential strand.
  - Mid-century futurism is more strongly evident in the USA through Googie architecture, and in Europe, for example through the buildings of Eero Saarinen.
  - In Australia and Victoria, while some space age inspired forms and motifs (such as flying saucers, port holes, geometric shapes) are evident in some buildings, as a design movement it found limited built expression or influence.

Criterion A is likely to be satisfied for a) but not b).

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#### STEP 2: STATE LEVEL TEST FOR SATISFYING CRITERION A

The place/object allows the clear association with the event, phase etc. of historical importance to be UNDERSTOOD BETTER THAN MOST OTHER PLACES OR OBJECTS IN VICTORIA WITH SUBSTANTIALLY THE SAME ASSOCIATION.

Futuro House FSM DOES NOT allow the process/history of building prefabrication in Victoria to be better understood that other places or objects with substantially the same association.

- Futuro House FSM is a prefabricated structure and necessarily demonstrates the process of prefabrication through its fabric.
- It is, however, tangential to the history of building fabrication in Victoria.
- While the space age design of Futuro House FSM sparks the imagination, the Futuro House was short lived and was ultimately not successful as a prefabricated structure.
- It is estimated that there were only eight units made in Australia (1970-74) including the original imported unit from which the moulds were made.
- The three known to exist in Victoria became novelties. The design had practical limitations which made Futuro Houses unappealing and the mid-1970s oil crisis made them expensive to manufacture.
- The process/history of building prefabrication in Victoria is better demonstrated through the other structures in Victoria's housing and building history. These include:
  - Nineteenth century wooden and iron buildings constructed to deal with the Gold Rush population growth.
  - Post-WW2 Beaufort Homes, Myers Houses and Snail Houses manufactured to deal with the postwar population growth.

These reveal better how architects used prefabrication as a response to particular moments in Victoria's history to harness technology, materials and structural form for specific functional purposes.

• Examples which may allow the processes of prefabrication in the late twentieth century to be better understood that most other similar places (including the Futuro House FSM) could include 'kit homes' that demonstrate important shifts in Victoria's housing and building history.

Criterion A is not likely to be satisfied at a State level.

#### **CRITERION B**

Possession of uncommon, rare or endangered aspects of Victoria's cultural history.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION B

The place/object has a *clear ASSOCIATION* with an event, phase, period, process, function, movement, custom or way of life of importance in Victoria's cultural history.

#### **Plus**

The association of the place/object to the event, phase, etc *IS EVIDENT* in the physical fabric of the place/object and/or in documentary resources or oral history.

#### **Plus**

The place/object is *RARE OR UNCOMMON*, being one of a small number of places/objects remaining that demonstrates the important event, phase etc.

OR

The place/object is RARE OR UNCOMMON, containing unusual features of note that were not widely replicated OR

The existence of the *class* of place/object that demonstrates the important event, phase etc is *ENDANGERED* to the point of rarity due to threats and pressures on such places/objects.

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#### **Executive Director's Response**

The Futuro House has a CLEAR ASSOCIATION with:

- a) The process/history of building prefabrication; and
- b) Mid-twentieth century futuristic design.

Consistent with the Basic Test for Criterion A:

- a) The process/history of building prefabrication IS of importance in Victoria's cultural history.
- b) The mid-twentieth century futuristic design movement IS NOT of importance in Victoria's cultural history.

These associations ARE *EVIDENT* in the physical fabric of Futuro House and/or in documentary resources or oral history.

Futuro House IS RARE OR UNCOMMON, containing unusual features of note that were not widely replicated.

#### STEP 2: STATE LEVEL TEST FOR SATISFYING CRITERION B

The place/object is RARE, UNCOMMON OR ENDANGERED within Victoria.

It is the view of the Executive Director that:

In the context of a) the process/history of building prefabrication

- Futuro House is rare and uncommon in Victoria but that does not mean that Criterion B is likely to be satisfied at the State level.
- There are many uncommon objects in Victoria (like the Futuro House FSM) that pass the Basic Test for Criterion B, and which also meet Criterion B at the State Level on the basis that they are 'rare' or 'uncommon'.
- There are tens of thousands of such objects held in collections across Victoria. They include all 'uncommon', 'rare' or 'one off' objects, art works, large industrial items and books held in the collections of the National Gallery of Victoria, Museum Victoria, State Library of Victoria and private collections which also have an association with a phase/process of importance in Victoria's history.
- The Executive Director is of the view that is not appropriate to recommend all such objects for the VHR.
- In relation to Futuro House FSM, although 1) the process/history of building prefabrication is of importance in Victoria's cultural history; 2) these associations are evident in the fabric of the object; and 3) it contains unusual features of note that were not widely replicated, this particular object itself does not allow the process/history to be better understood that other places or objects with substantially the same association.
- The Executive Director submits that there is a gap in the current guideline for Criterion B.
- The current State Level test for Criterion B potentially allows the registration of objects which are 'rare' or 'uncommon' and which are also *poor*, *unrepresentative or tangential examples* of the historical phase/process and do not allow the phase/process to be better understood that other places or objects with substantially the same association.
- It is on this basis that he submits that the Futuro House FSM is not likely to satisfy Criterion B at the State level.

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#### **CRITERION C**

Potential to yield information that will contribute to an understanding of Victoria's cultural history.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION C

The:

- visible physical fabric; &/or
- documentary evidence; &/or
  - oral history,

relating to the place/object indicates a likelihood that the place/object contains *PHYSICAL EVIDENCE* of *historical interest* that is *NOT CURRENTLY VISIBLE OR UNDERSTOOD*.

#### **Plus**

From what we know of the place/object, the physical evidence is likely to be of an *INTEGRITY* and/or *CONDITION* that it *COULD YIELD INFORMATION* through detailed investigation.

#### **Executive Director's Response**

It is unlikely that the Futuro contains physical evidence that is not currently visible or understood. The construction method and materials of the Futuro is well documented. There are experts in the construction and restoration of the Futuro, and a number of Australian and International Futuro Houses have been restored.

Criterion C is not likely to be satisfied.

#### **CRITERION D**

Importance in demonstrating the principal characteristics of a class of cultural places and objects.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION D

The place/object is one of a *CLASS* of places/objects that has a *clear ASSOCIATION* with an event, phase, period, process, function, movement, important person(s), custom or way of life in Victoria's history.

#### Plus

The EVENT, PHASE, etc is of HISTORICAL IMPORTANCE, having made a strong or influential contribution to Victoria.

# Plus

The principal characteristics of the class are EVIDENT in the physical fabric of the place/object.

#### **Executive Director's Response**

The Futuro House has a CLEAR ASSOCIATION with the classes of:

- a) The process/history of building prefabrication; and
- b) Mid-twentieth century neo futuristic design.

Consistent with the Basic Test for Criterion A:

- a) The process/history of building prefabrication IS of importance in Victoria's cultural history.
- b) Mid-twentieth century futuristic design is not of historical importance and did not make a strong or influential contribution to Victoria.
  - In Australia mid-century futuristic design was one of many strands of Modernism that contributed to the Australian design vocabulary between the 1950s and 1970s. It was not a strong or influential strand.
  - Mid-century futurism is more strongly evident in the USA through Googie architecture, and in Europe through the buildings of Eero Saarinen.

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• In Australia and Victoria, while some space age inspired forms and motifs (such as flying saucers, port holes, geometric shapes) are evident in some buildings, as a design style it found limited built architectural expression.

These associations ARE *EVIDENT* in the physical fabric of Futuro House and/or in documentary resources or oral history.

Criterion D is likely to be satisfied for a) but not b).

#### STEP 2: STATE LEVEL TEST FOR SATISFYING CRITERION D

#### The place/object is a NOTABLE EXAMPLE of the class in Victoria

The Futuro House FSM is NOT a notable example of the class of building prefabrication in Victoria.

- The object does not demonstrate the processes of prefabrication in a manner that could be considered notable (that is fine, influential or pivotal) when compared with other prefabricated structures.
- It is estimated that there were only eight units ever made in Australia (1970-74) including the original imported unit from which the moulds were made.
- The design had practical limitations, few were manufactured and the three known to exist in Victoria became novelties.
- While the Futuro House (FSM) has an eye-catching design, there is a consensus that the Futuro House venture did not achieve success as a prefabricated housing concept.
- Futuro House (FSM) is tangential to the history of building fabrication in Victoria and is not a notable example.

Criterion D is not likely to be satisfied at the State level.

#### **CRITERION E**

Importance in exhibiting particular aesthetic characteristics.

# STEP 1: A BASIC TEST FOR SATISFYING CRITERION E

The PHYSICAL FABRIC of the place/object clearly exhibits particular aesthetic characteristics.

#### Executive Director's Response

- Futuro House FSM exhibits particular aesthetic characteristics.
- It has a highly distinctive form and expression. The circular plan, elevated ovoid shape, ovoid porthole windows with plastic bubble-domes are hallmarks of futuristic design.
- Designed to echo public perceptions of a UFO, it remains an novel structure evocative of the space age.

Criterion E is likely to be satisfied.

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#### STEP 2: A BASIC TEST FOR DETERMINING STATE LEVEL SIGNIFICANCE FOR CRITERION E

The aesthetic characteristics are *APPRECIATED OR VALUED* by the wider community or an appropriately-related discipline as evidenced, for example, by:

- critical recognition of the aesthetic characteristics of the place/object within a relevant art, design, architectural or related discipline as an outstanding example within Victoria; or
- wide public acknowledgement of exceptional merit in Victoria in medium such as songs, poetry, literature, painting, sculpture, publications, print media etc.

#### Executive Director's Response

- The interesting aesthetic characteristics of Futuro House FSM have been appreciated and valued by the wider community particularly as a landmark in South Morang until May 2018.
- This public appreciation of the unusual appearance of the object, however, does not meet the threshold of 'wide public acknowledgement of exceptional merit'.
- Futuro House FSM has received some interest within the field of architecture and design in Victoria but not to the threshold of receiving critical recognition as an outstanding example within Victoria.
- While there is some commentary on Futuro House FSM in Victorian design and architectural publications, this tends to focus on its unusual appearance as a 'space oddity' or 'quirky object' rather than it being seriously evaluated as an outstanding part of the mid-century modernist/futurist design offerings in the State.

Criterion E is not likely to be satisfied at the State level.

#### **CRITERION F**

Importance in demonstrating a high degree of creative or technical achievement at a particular period.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION F

The place/object contains *PHYSICAL EVIDENCE* that clearly demonstrates creative or technical *ACHIEVEMENT* for the time in which it was created.

Plus

The physical evidence demonstrates a HIGH DEGREE OF INTEGRITY.

#### **Executive Director's Response**

#### Technical achievement

- The Futuro House (Suuronen's design) represents an attempt to develop a standardised, relocatable and self-contained dwelling, using new materials and methods of manufacture, which could be easily assembled and transported.
- Although ultimately commercially less successful than anticipated 'The Futuro House' (Suuronen's design) demonstrates a level of technical achievement for the time in which it was created.
- The physical integrity of the Futuro FSM is good. The form, structure and technique of Suuronen's design can be read.

#### Creative achievement

- In October 1968 the Futuro House (Suuronen's design) was widely acclaimed as part of an exhibition of Finnish design in London.
- The Futuro House (Suuronen's design) demonstrate a level of creative achievement the design field that was recognised at the time.
- The physical integrity of the Futuro FSM is good. The form, structure and technique of Suuronen's design can be read.
- The Futuro FSM has limited recognition within parts of the design community in Victoria as an interesting and novel example of mid-century futurist design.

Criterion F is likely to be satisfied.

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#### STEP 2: A BASIC TEST FOR DETERMINING STATE LEVEL SIGNIFICANCE FOR CRITERION F

The nature &/or scale of the achievement is *OF A HIGH DEGREE* or 'beyond the ordinary' for *the period in which it was undertaken* as evidenced by:

- critical acclaim of the place/object within the relevant creative or technological discipline as an outstanding example in Victoria; or
- wide acknowledgement of exceptional merit in Victoria in medium such as publications and print media; or
  - recognition of the place/object as a *breakthrough* in terms of design, fabrication or construction techniques; or
- recognition of the place/object as a successful solution to a technical problem that *extended the limits* of existing technology; or
- recognition of the place/object as an outstanding example of the creative adaptation of available materials and technology of the period.

#### **Executive Director's Response**

#### Technical achievement

- In the design and prefabricating process related to Futuro Houses, Matti Suuronen made novel and interesting use of existing building material technologies.
- There is no evidence that the nature of the technical achievement demonstrated by Futuro House FSM was of a high degree or 'beyond the ordinary' for the period in which it was undertaken.
- Such technologies were already in use, for example Suuronen had once incorporated a large plastic dome in an earlier silo project in Finland.
- Futuro House FSM did not represent a technical breakthrough in fabrication, plastics or construction techniques in Victoria evidenced by critical acclaim or wide acknowledgement of exceptional merit.
- It did not extend the limits of existing technology.
- It was a novel, but not an outstanding, example of the creative technical adaptation of available building materials.

# Creative achievement

- While an eye-catching and visually interesting object, the nature of the creative design achievement demonstrated by Futuro House FSM does not meet the threshold for 'a high degree' or 'beyond the ordinary' for the period in which it was undertaken.
- The design of the Futuro House (late 1960s) was part of a broader space-age, futurist design trend evident predominantly in Europe and the USA. The aesthetics of this trend were evident from the 1950s.
- While the Futuro House received attention at the London Finnish design exhibition in 1968, a similar level of attention was paid to many Scandinavian and European design objects of the era.
- In Victoria there was certainly interest in the design of Futuro House particularly within design circles. But it did not reach the threshold of 'critical acclaim' or 'wide acknowledgement of exceptional merit' within architectural or design disciplines or amongst the public.

Criterion F is not likely to be satisfied at the State level.

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#### **CRITERION G**

Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons. This includes the significance of a place to indigenous people as part of their continuing and developing cultural traditions.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION G

Evidence exists of a DIRECT ASSOCIATION between the place/object and a PARTICULAR COMMUNITY OR CULTURAL GROUP.

(For the purpose of these guidelines, 'COMMUNITY or CULTURAL GROUP' is defined as a sizable group of persons who share a common and long-standing interest or identity).

#### **Plus**

The ASSOCIATION between the place/object and the community or cultural group is STRONG OR SPECIAL, as evidenced by the regular or long-term use of/engagement with the place/object or the enduring ceremonial, ritual, commemorative, spiritual or celebratory use of the place/object.

#### **Executive Director's Response**

- There is an international community of Futuro House enthusiasts engaged in on online forums.
- There is no known direct association between the Futuro FSM (this particular Futuro House) and a particular community or cultural group.
- There is no evidence that there has been regular or long-term engagement with Futuro FSM or an enduring ceremonial, ritual, commemorative, spiritual or celebratory use of the object, other than through online forums related to all the Futuro Houses currently known to exist.
- The Futuro House FSM has an association with the local communities where it was once a local landmark.
   Early accounts of its appearance causing traffic jams in Hurstbridge and its later prominent position on McDonalds Road in South Morang.
- The Futuro House FSM is no longer located at either of those places.

Criterion G is not likely to be satisfied.

## **CRITERION H**

Special association with the life or works of a person, or group of persons, of importance in Victoria's history.

#### STEP 1: A BASIC TEST FOR SATISFYING CRITERION H

The place/object has a *DIRECT ASSOCIATION* with a person or group of persons who have made a strong or influential *CONTRIBUTION* to the course of Victoria's history.

#### Plus

The ASSOCIATION of the place/object to the person(s) IS EVIDENT in the physical fabric of the place/object and/or in documentary resources and/or oral history.

#### Plus

# The ASSOCIATION:

- directly relates to ACHIEVEMENTS of the person(s) at, or relating to, the place/object; or
- relates to an enduring and/or close INTERACTION between the person(s) and the place/object.

#### **Executive Director's Response**

- There is no known direct association with Futuro FSM and individuals or groups that have made an influential contribution to the course of Victoria's history.
- Futuro FSM was first purchased by Development Underwriting (Victoria) as a site office for the development of Apollo Parkways in 1970.

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- It was later moved to the site of an outdoor recreation centre in South Morang known as The Fun Connection at around the same time the centre opened in 1988.
- Futuro FSM was designed by Finnish architect Matt Suuronen.
- This association is evident in the physical fabric of the object but Matti Suuronen did not make a strong or influential contribution to the course of Victoria's history.

Criterion H is not likely to be satisfied.

# **CULTURAL HERITAGE SIGNIFICANCE**

# Overview of significance

Futuro House FSM is of interest, particularly within parts of the design and architecture communities, as an example of a Finnish-designed mid-twentieth century futuristic prefabricated structure. Although distinctive and eye-catching in appearance in its space age aesthetics, it does not meet any of the Heritage Council's criteria for cultural heritage significance at the State Level.

# **HISTORY**

#### **Prefabrication**

Within the British world, the prefabrication of buildings is linked to colonisation. During the early British settlement of New South Wales, prefabricated wooden structures including a hospital, storehouses and cottages were shipped to Sydney arriving in 1790. In Britain a substantial industry developed to support housing pre-fabrication that accompanied colonial expansion. In the 1700s these buildings were made from timber. By the mid-nineteenth century, British technology in engineering and metal smelting had advanced to enable the easy production of iron buildings.

During the 1850s, large numbers of prefabricated iron buildings were imported from Britain to Victoria. The Gold Rush saw a housing shortage resulting from a sudden increase in population and a rush of labour to the goldfields. Ordered from a catalogue, buildings ranged from modest cottages to theatres and even churches which could hold over 700 people. Constructed in Britain, the houses were dismantled, every component labelled then packed into crates and shipped abroad to be reassembled by non-building specialists in their new location.

The next wave of building prefabrication in Victoria occurred after World War II. During six years of war, housing construction had been negligible. Large numbers of servicemen were returning and expecting houses in which to start their new lives. Houses were also needed for migrants who came in large numbers from Europe. During this era, the building materials industry struggled to meet the massive demand for timber, bricks and roofing tiles. Governments in Australia undertook responsibility to meet the need for low-cost housing on a large scale. The main prefabricated housing programs in Victoria included the Beaufort Houses, Myer Houses and 'Operation Snail' Houses.

The 'Beaufort' steel house project was a joint State and Federal government initiative to solve the postwar housing shortage. Beaufort homes did not require skilled tradespeople to build these structures and the program provided a peacetime function for the Beaufort Bomber aircraft factories set up during the war. The Beaufort house was one of the first pre-fabricated housing types to be developed and at peak production it was anticipated that 3,000 Beaufort homes per year could be produced. However, the project was continually delayed and eventually cancelled due to shortages of steel. As a result only 58 Beaufort houses were built in Victoria and at least half of these were erected in the West Coburg Estate in late 1947 and 1948.

The Myer House was a similar initiative by Norman Myer (of the Myer family) which commenced in 1945. The plan was to develop a house that was capable of quick erection at low cost and would require only limited maintenance. The 'Myer House' was to cost approximately £1,500 and would be capable of erection within 15 days. The Myer House was to be constructed by the Commonwealth Aircraft Corporation. There was considerable government and public interest in the project, with a demonstration Myer Home (that was to be

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raffled) erected in Treasury Gardens in January 1947 and reports of long queues of people waiting to order the house. A change of Government in Victoria in November 1947 along with concerns about the economic viability of both the Beaufort and Myer Houses led to their demise.

In the late 1940s, 'Operation Snail' was initiated by the Victorian Minister for Transport to provide housing required by migrant workers for the expanding Victorian railways. The Snail Houses were designed in Melbourne and mass produced largely in England in the form of kits of pre-cut and part-assembled timber components which could be speedily erected in the field by a small and largely unskilled labour force. Wherever practicable, the kits were packaged, labelled and shipped to warehouses ready for delivery to the sites, complete with do-it-yourself instruction manuals. Within a year this housing project between Britain and Australia was producing houses at a rate of 40 per week. Other government departments joined the scheme, leading to over 5000 houses being erected on specially developed estates and individual sites throughout Victoria and New South Wales.

From the 1950s, prefabrication was seen less as a large-scale housing solution by Australian governments. In its place the idea of modular construction (the use of standard prefabricated modules in non-standard buildings) developed considerably. During this era the Victorian Housing Commission specialized in modular concrete construction making modules at its factory in Holmesglen. But the production of fully prefabricated structures was less common. This was largely restricted to garden sheds and garages until the 'kit home' emerged in the 1970s. During the 2000s the demand for smaller ecologically friendly dwellings, lower carbon footprints and granny flats due to population pressures has seen a resurgence of 'prefabs'. The use of CAD and digital prefabrication tools has opened up opportunities for greater customisation.

#### Domes, pods and spherical buildings

Modern 'prefabricated pods' have a history which begins in the early twentieth century. During the 1920s American inventor and architect Buckminster Fuller designed the Dymaxion House to address several perceived shortcomings with existing homebuilding techniques. Fuller's concept, which went through several iterations from the 1920s to the 1940s, consisted of factory manufactured kits, assembled on site, intended to be suitable for any site or environment and to use resources efficiently. A key design consideration was ease of shipment and assembly.



Buckminster Fuller's Dymaxion House
On Display at the Henry Ford Museum (developed 1920s-1940s).

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After World War II, Buckminster Fuller was championing the Geodesic Dome. Light, strong, and cost-effective, the dome covered more space without internal supports than any other enclosure. From this era, interest in domed structures increased partly due to their space age appearance and advances in engineering and building technologies. In Australia, the Shine Dome at the Australian National University, Canberra was built in 1959 to a design of Roy Grounds. It was referred to by locals as 'The Martian Embassy'. The 1960s saw a number of large geodesic domes built internationally as architects explored the possibilities of this style and took advantage of new technologies in building materials and engineering.



Shine Dome, Australian National University (1959) Architect, Roy Grounds



The Climatron greenhouse at Missouri Botanical Gardens (1960) Architect Thomas C. Howard



The Montreal Biosphère, formerly the American Pavilion of Expo 67, Quebec (1967) Architect, Buckminster Fuller

#### Mid-twentieth century futurism

'Futurism' dates its roots to Italy as far back as 1910. Characterized by strong color, long dynamic lines, suggestions of speed and motion, urgency and lyricism, the movement attracted poets, musicians, artists and architects alike. Many designs from this era were never built but remain 'unbuilt fantasies' that exist only in drawn form which inspire designers to this day. Futurism was reinvented from the 1950s as the imaginations of architects were stimulated by space age aesthetics. This mid-century era of futurism is sometimes called 'neofuturism'. Its chief exponent was Finnish architect Eero Saarinen, whose streamlined furniture designs, often of industrial materials like plastic, are associated with the era of space exploration. Mid-century futurism is one of the many strands of Modernism and is associated with Googie Architecture seen predominantly in the USA in the 1950s and 1960s. The Googie style drew upon futuristic space age motifs and symbols of motion, such as boomerangs, flying saucers, and atoms. It featured upswept roofs, curves, geometric shapes and generous use of glass, steel and neon. It adopted a key principle from modernism where form followed function.

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During the 1950s and 1960s there was not a strong uptake of futurist architecture or its Googie counterpart in Australia and Victoria resulting in actual built forms. Rocket images, notes science curator Kerrie Dougherty, 'were never so pervasive [in Australia] as in the United States'. The futurist style and space age aesthetics, as ideas, however, contributed to modernist thinking and had some limited influence in the Australian design and advertising world.



Dulles International Airport in Chantilly by Finnish architect Eero Saarinen (1963) a key chief exponent of mid-twentieth century futurist architecture.



An example of Googie Architecture The Caribbean Motel in Wildwood, New Jersey's Wildwoods Shore Resort Historic District (1957)



Mr Squiggle and Rocket.
The Mr Squiggle Show commenced in Australia in July 1959.



Coles New World Supermarket Geelong, 1967

#### **Matti Suuronen**

The 1950s and 60s is sometimes called the 'Golden Age of Finnish Design' with designers focusing on clean lines, the use of plastics and modern aesthetics in a range of objects and structures. Matti Suuronen (1933-2013) became internationally known for designing buildings (especially the Futuro and Venturo houses) which made novel use of materials such as polyester resin, fibreglass, and acrylic windows. A key element in his design was creating prefabricated elements that would later be assembled into complete structures. While the form of the Futuro has been linked to the aesthetics of science fiction, it also represents an early investigation of the use of plastics in prefabricated housing. Interestingly, Matti Suuronen himself denies any aesthetic association with flying saucers and instead affirms that the form of the Futuro was informed by mathematics and function.

Name: Futuro House (Formerly of South Morang)



Matti Suuronen with a model of the Futuro House

#### The Futuro House

In 1965 Suuronen was commissioned to design a moveable ski cabin that could be erected quickly. The brief required a lightweight, pre-fabricated, modular and transportable structure. The first prototype (white) had been developed by March 1968. A second was unit (yellow) was manufactured and in October 1968 a third unit was exhibited at a design exhibition in London, which generated worldwide attention. Swamped with hundreds of foreign requests for local manufacturing rights, Polykem the Finnish manufacturer decided to launch into the full-scale commercial production of what had by then become known as the 'Futuro House'. It was quickly recognized to have many commercial applications outside of its original purpose and were marketed worldwide as having many uses, including as ski chalets, offices, beach houses and restaurants.

Suuronen used fibreglass reinforced polyester plastic for the Futuro House which he had previously used in the design of a large plastic dome for the roof of a grain silo in Seinäjoki. To facilitate transport, the house consisted of 16 elements that were bolted together to form the floor and the roof. The project could be constructed on site, or dismantled and reassembled on site in two days, or even airlifted in one piece by helicopter to the site. The only necessity on site for its placement were four concrete piers, so the project could occupy nearly any topography. Due to the integrated polyurethane insulation and electric heating system, the house could be heated to a comfortable temperature in only thirty minutes.

It is estimated that fewer than 100 were built during the late 1960s and early 1970s despite manufacture in a number of countries. The skyrocketing cost of plastic due to the oil crisis 1973-74 suddenly made the Futuro prohibitively expensive to both manufacture and purchase.

#### **Futuro Houses in Australia**

Eight Futuro Houses are known to have existed in Australia, three of which were in Victoria. The Futuro House concept appears to have first attracted attention in mid-October 1968, when news of the London exhibition was reported. Albury businessmen, Peter Colquhoun, imported a single Futuro House from Finland, and then worked with the International Group in Scoresby, Australia's leading manufacturer of boats, to manufacture Futuro Houses on a commercial scale. The Futuro House was unsuccessful in Australia as it was globally. Only three were sold in Victoria. In most Australian states, the units did not satisfy the regulatory criteria for residential use and councils refused to issue permits. While production was straightforward, the house itself had many shortcomings, including the problem of accommodating standard furniture, the cost, and a peculiar chemical smell that, although it eventually dissipated, was initially off-putting. In Australia there was also the problem of cooling the unit in hot weather. By the time Futuro Houses ceased to be manufactured in Australia

Name: Futuro House (Formerly of South Morang)

in 1974, only eight units were in existence here, including the original imported unit from which the moulds were made.

# Futuro House in Victoria #1 (FSM) Formerly of South Morang

A report in the *Age* in 1970 confirmed that Australia's first Futuro House had been manufactured by an Albury-based firm known as the Futuro Corporation, the sole Australian licensee of this design. This was the Futuro House FSM. By that date it had been relocated from a temporary site at Hurstbridge to the Apollo Parkways Housing Estate, Greensborough as the sales office for a property development company. At the time of manufacture, a Futuro House cost between \$7,500 and \$12,500. This structure is known to have been located at the following places:

- Hurstbridge The Futuro House FSM was briefly located on Kinglake Road, Hurstbridge.
- <u>Greensborough</u> An article from the *Age* in 1970 suggests that Futuro FSM was purchased by Development Underwriting Victoria and used as a sales office for a large residential housing development called Apollo Parkways in Diamond Road, Greensborough. The Futuro House FSM was removed from Apollo Parkways around 1980. It appears likely that it went into storage before being erected at its next location.
- <u>South Morang</u> By January 1989 Futuro House FSM had been moved to a visually prominent location at outdoor recreation centre originally known as The Fun Connection at 360 McDonalds Road South Morang. It was used as a storage facility and to promote the adjacent go-cart track. Of the three Futuro Houses in Victoria, Futuro FSM is the most intact. The two others were combined to create an office at the Caribbean Gardens leaving each has a with a large non-original opening to the side (see below).

#### Futuro Houses in Victoria #2 and #3

The two other examples of the Futuro House known to have existed in Victoria are the ones that were adapted and physically connected together to serve as an administration office at the Caribbean Gardens in Scoresby. One of these was the original sample unit that Peter Colquhoun imported from Finland, and the other was one of the copies subsequently manufactured at Scoresby. One of the units from the Caribbean Gardens is confirmed to have been taken to Lorne (reportedly by truck, in one piece) where it was re-erected as a 'flop house for surfies and their fellow travellers'. The current whereabouts or existence of the other Caribbean Gardens unit remains unknown.



The other two Futuro Houses known to have existed in Victoria. Joined together at the Caribbean Gardens. Photo circa. 1970

Name: Futuro House (Formerly of South Morang)

#### **Futuro Houses and Retrofuturism**

Today Futuro Houses are well-known among pop culture devotees, retrofuturism fans and all those interested in 1960s space age design. Retrofuturism is a trend in the creative arts showing the influence of depictions of the future produced in an earlier era.

#### **CONSTRUCTION DETAILS**

**Architect name:** Matti Suuronen (Finland)

Manufacturer: Futuro Corporation, Albury NSW

**Construction date:** 1970

#### **PHYSICAL DESCRIPTION**

The Futuro House FSM is a prefabricated fibreglass plastic portable structure circular in plan and ovoid in elevation. It is eight metres in diameter and four metres in height and made up of sixteen modular segments, connected in eight bays to create the distinctive flattened spheroid form. Each bay contains a pair of ovoid porthole windows, sealed with concave tinted clear plastic. One bay incorporates the entry door, a moulded doorway with a drop-down stair casee. Designed in a futuristic style resembling a UFO, the self-contained fibreglass structure is raised above the ground on a metal pipe frame, comprising a ring-like element supported on four pairs of angled struts.

### **INTEGRITY/INTACTNESS**

Intactness – The intactness of this object is fair to poor. The overall form of the place remains, however some of the original windows are missing. Internally the only remaining areas are the bathroom and kitchenette, both without fittings. It was found during the dismantling process that the internal wooden floors were rotten. It was also evident that there was some cracking of the shell. The Futuro House FSM was originally red in colour but has evidently been repainted at least twice. It is currently mostly silver-grey in colour, with a partial overcoat of off-white. In places, the original bright red finish has started to bleed through subsequent overpainting. (May 2018)

Integrity – The integrity of the object is good. It is now in a dismantled state. (July 2018).

#### **CONDITION**

The place is in fair to poor condition for a structure of its type and age. The portholes appear to retain their original concave plastic covers, although one has been compromised by cutting a circular hole (presumably to accommodate ventilation equipment). There are several missing elements including windows and fittings and the material is beginning to deteriorate and shows signs of stress. Some weathering of the external fibreglass finish is evident. It should be noted that Futuro Houses were not intended to be permanent structures, and this object has surpassed its expected life of 30 years. (May 2018).

Name: Futuro House (Formerly of South Morang)

# **COMPARISONS**

#### **Futuro Houses**

During the VHR assessment process, is not usual to compare places/objects with those internationally and in other states. In this instance, however, it is helpful to provide a wider context in which it can be understood. As at 12 June 2018 there are 67 known Futuro Houses extant globally from the fewer than 100 ever constructed. These are listed on the The Futuro House Website. The majority of the surviving units are located in the USA (19) followed by New Zealand (9). There are 5 in Finland, home of architect Matti Suuronen.

#### Australia

The Futuro House Website lists 8 Futuro Houses currently known to exist in Australia:

- 1. Victoria: Formerly located at South Morang, now in storage, the object currently under assessment.
- 2. Victoria: Cheltenham.
- 3. Victoria: Lorne, 985 Erskine Falls Road.
- 4. ACT: University of Canberra, Bldg 5, Bruce.
- 5. South Australia: Deep Creek, Blowhole Creek Road.
- 6. Western Australia: High Wycombe, Perth.
- 7. Tasmania: Brother's Point, Macquarie Island.
- 8. Tasmania: Waterfall Bay, Macquarie Island.



The Futuro House at the University of Canberra.

This is arguably the best example of a Futuro House in Australia. It has been restored by conservation students. Note the additional windows on the lower panels (LHS) which indicates that it was the 'luxury' model. The Futuro House FSM does not have these additional windows.

#### **Categories of comparison**

In the Victorian context, the Futuro House can be usefully compared with:

- Prefabricated buildings
- Mid-twentieth century futuristic places/objects.

Name: Futuro House (Formerly of South Morang)

# **Prefabricated buildings**

# Nineteenth century prefabricated wooden houses

# La Trobe's Cottage (VHR H1076)

Corner Birdwood Avenue and Dallas Brooks Drive (near Royal Botanic Gardens and the Shrine), Melbourne.



Victoria's first Government House was a prefabricated wooden building brought from England in 1839 by the then Superintendent of the Port Phillip District, Charles La Trobe. Pre-fabricated houses were imported into Australia in quite large numbers in the middle of the 19th century. This is a particularly early example and one of the few now surviving. Known as 'La Trobe's Cottage' it is of historical significance as a symbol of Melbourne's early settlement, and because of its association with Charles La Trobe and, through him, with the beginnings of Victoria's political infrastructure and social development. The rudimentary, pre-fabricated nature of the original building provides an idea of the living conditions of the early colonists in Melbourne. The substantially intact dining room was added by La Trobe in 1840 and is thus one of the oldest surviving structures built in Melbourne.

# Nineteenth century prefabricated iron buildings

#### Iron House (VHR H0220)

399 Coventry Street South Melbourne



Iron House (VHR H0220)

The Iron House at 399 Coventry Street South Melbourne was imported and erected in 1853 and is still located on the original site. The house is a fine intact example of a building type which proliferated in the gold rush era of the burgeoning Colony of Victoria and is of paramount technological rather than stylistic importance. It is located with two other iron houses at the Portable Iron House Museum Site owned by the National Trust of Australia (Victoria).

Name: Futuro House (Formerly of South Morang)

#### **Bellhouse Iron House (VHR H1888)**

399 Coventry Street South Melbourne



Bellhouse Iron House (VHR H1888)

The Bellhouse Iron House was originally erected around 1853 at 40 Moor Street, Fitzroy. It is of technical and architectural significance as an extremely rare and relatively intact example of the innovative portable iron structures constructed according to the British patented system of Edward Taylor Bellhouse of Manchester. It is the only surviving building by ET Bellhouse in Victoria and Australia and is thought to be one of only two such buildings surviving in the world. The Bellhouse Iron House is located with two other iron houses at the Portable Iron House Museum Site owned by the National Trust of Australia (Victoria).

# Porter Prefabricated Iron Store Originally in Geelong (VHR H2248)

Sovereign Hill, Bradshaw Street Golden Point, Ballarat City



Porter Prefabricated Iron Store (Assembled)



Porter Prefabricated Iron Store (Currently in storage disassembled)

The Porter Prefabricated Iron Store c.1853 is historically significant as a now rare example of the many prefabricated iron buildings which were imported into Victoria during the Victorian gold rushes. It is the only surviving identifiable building made by JH Porter, a pioneer of galvanising, the structural, use of corrugated iron, and prefabrication. Probably manufactured around 1853, is an early example of the use of a building material, galvanised corrugated iron, which was to become closely linked with Australian building, especially for utilitarian buildings.

Name: Futuro House (Formerly of South Morang)

# Corio Villa (VHR H0193)

56-58 Eastern Beach Road Geelong, Greater Geelong City



Corio Villa was prefabricated in 1855 and constructed in 1856. The original cast iron house is constructed of 12mm thick cast iron plates 450mm x 300mm bolted together to form flat wall sections. From the 1850s iron was used for decorative and ornamental as well as industrial purposes. Ornately decorated filigree guilloche, bevelled edged columns are patterned with unidentified foliage and roses in the shape of Scottish bluebells. Other features include fretwork bargeboards, bowed triple-arched bays and a flat-arched porch with arches displaying a lions head as a keystone.

# Twentieth century prefabricated buildings

Beaufort Houses (1945-48)



A Beaufort House (1946) 19 Gallipoli Parade, Pascoe Vale South City of Moreland Heritage Overlay, HO425

The 'Beaufort' steel house project was a joint State and Federal government initiative to solve the severe housing shortage experienced in Australia after World War II. Fifty-eight Beaufort houses were built in Victoria and at least half of these were erected in the West Coburg Estate in late 1947 and 1948.

Name: Futuro House (Formerly of South Morang)

# **Operation Snail House (1948)**



An Operation Snail House (1950)
25 Adelaide Street, Sunshine, McKay Housing Estate (King Edward Avenue)
City of Brimbank – No Heritage Overlay

This is an example of a 'Snail House' designed in Melbourne to respond to the need for housing for workers on the Victorian railway and other industries. The Snail Houses were designed in Melbourne and mass produced in Britain in the form of kits of pre-cut and part-assembled timber components which could be speedily erected in the field by a small and largely unskilled labour force.

# Mid-twentieth futurist places/objects

Currently there are no places or objects in the VHR which strongly exhibit characteristics of futuristic design. This reflects its relatively limited influence in Australia and Victoria during this era. There are two examples of postwar architecture in the VHR, however, which could be said to be influenced to some extent by a futuristic or a space age sensibility.

#### Burns House 'Kangaroo' (VHR H2314)

644 Henley Road, Bend of Islands, Nillumbik Shire



Burns House 'Kangaroo' (VHR H2314)

Name: Futuro House (Formerly of South Morang)

The Burns house, known as 'Kangaroo', was designed by the architect and artist Peter Burns and built in stages from 1968 on an elevated sloping bush site about 40 km north-east of Melbourne. The houses designed by Burns contributed to Melbourne's reputation as a site of architectural innovation. 'Kangaroo' is architecturally significant as a reflection of the diversity and innovation of the multiple architectural streams that emerged within late modernism during the post-World War II period. One element of this eclectic design, the convex port hole windows have a space age aesthetic about them. 'Kangaroo' reflects both the experimentation with form and materials typical of this period and the relative austerity of the times, in the use of low-cost materials such as fibro, which reached its peak of popularity during the 1960s.

# **Rosebud Sound Shell (VHR H2299)**

988 Point Nepean Road Rosebud, Mornington Peninsula Shire



Rosebud Sound Shell (VHR H2299)

The Rosebud Sound Shell is of architectural significance as an outstanding example of the dynamic architectural forms which became popular in the post-World War II period. It is significant as a rare example of a hyperbolic paraboloid form, a much publicised motif in international architecture from the early 1950s to the late 1960s. The Rosebud Sound Shell is of aesthetic significance for its highly unusual expressionist form, which is an example of the dynamic futuristic roof shapes derived from structural concepts which were developed in the post-war period.

#### **COMPARISONS SUMMARY**

#### **Prefabricated buildings**

The Futuro FSM is tangential to Victoria's history of prefabricated buildings. It has no direct association with large scale housing shortages in Victoria which drove the processes and technologies of prefabrication in the State. The VHR does not contain any prefabricated buildings from the late 1960s onwards. This reflects a shift away from large scale prefabrication to kit homes and bespoke structures from the 1970s. Futuro House FSM sits outside the State's historical continuum of prefabrication and is an interesting and unusual example of late 1960s Finnish design.

# Mid-twentieth century futuristic places/objects

There are few mid-century futuristic places/objects in the VHR. This reflects the limited influence that the futuristic strand of modernism had in Victorian architecture. There is no doubt that Futuro House FSM is rare globally and within Australia. But the design phase it represents was not strong or influential in Victoria. 'Kangaroo' and the 'Rosebud Sound Shell' are predominantly registered for reasons other than rarity or their association with futurist design.

Name: Futuro House (Formerly of South Morang)

#### KEY REFERENCES USED TO PREPARE ASSESSMENT

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Name: Futuro House (Formerly of South Morang)

# **ADDITIONAL IMAGES**



Futuro FSM assembled at South Morang (March 2018)



Futuro House FSM ellipsoid window (March 2018)

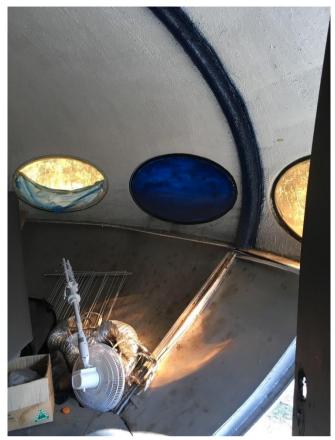
Name: Futuro House (Formerly of South Morang)



Futuro House FSM interior detail (March 2018)



Futuro House FSM bathroom with ellipsoid door (March 2018)



Futuro House FSM interior (March 2018)



Futuro House FSM in the process of being disassembled (April 2018) CHECK DATE

Name: Futuro House (Formerly of South Morang)



Parts of the disassembled Futuro House FSM (May 2018)



Parts of the disassembled Futuro House FSM (May 2018)



Futuro House Brochure, Finland (c.late 1960s/early 1970s) Source: http://www.thefuturohouse.com/

Name: Futuro House (Formerly of South Morang)



Advertisement for the Futuro House from Canberra Times 1972.

Name: Futuro House (Formerly of South Morang)



# PLASTIC 'SNOBBER'

Suburban snobbery is blocking a boom in plastic housing, the manufacturers believe.

Designs at the moment range from the "TV". shape to one that has been labelled the Flying Saucer.

A third design is expected on the market later this year.

semi-furnished \$6,500 home to a fully furnished \$10,500 house. Prices vary from \$6,500

But a spokesman for an Adelaide company that has sold over 70 plastic houses so far said: "At the moment we are fighting against conventionalism and a certain amount of pride.

# Conventional

"Some people are worried what their neighbours in a \$35,000 house might think if they were to build a plastic home."

The president of the po-werful Australian Associa-tion of Permanent Building

# DYKES INVESTIGATIONS

Recommended by Solicitors.

Societies joined the cam-

Societies joined the campaign to boost plastic housing this week.

In a TV interview Mr Angus Moir said prefabrication was "the success story of the future."

Later at his Sydney office he said: "We are prepared to help people to buy plastic houses but the ironical thing is that they don't want loans for this type of home.

"Home-buyers are still very conventional, but this attitude will change. Then,

attitude will change. Then,
I believe, plastic housing
will be a very big thing."
The two leading companies in plastic housing

are hoping that his pre-diction of a break-through will become a reality.

A spokesman for the Adelaide firm of Transtar Villas — who won a Prince Philip Design Prince Philip Design
Award for their plastic
home — said yesterday:
"So far we've sold about

70 housing units and built a holiday camp. But sales have been mainly in coun-

try areas.
"We have not yet broken into the suburban market but this is the gamble we are taking for the future."

Both companies similar materials for their homes. The walls are built in a sandwich style with outer and inner walls of fibreglass and in between a layer of foam.

#### Cost less

A spokesman for the Futuro Corporation, based in Albury on the NSW-Victorian border, said their homes were built to last at least 30 years.

last at least 30 years.

He added: "We will also be marketing a new home later this year which will cost less than other plastic houses at the moment.

"We will also be building a house in an Albury suburb and hope this will help break down this conventional attitude towards housing."

But there are other

breakthroughs imminent in the Australian plastics field.

The Institute of Plastics has hired an expert for "several thousand dollars" to design a bathroom unit that can be slotted into a house.

Sydney a to start And in Sydney a company hopes to start making \$400 plastic bathroom units later this year.

A spokesman for Comeng Fibreglass Industries said: "The unit is based on a local competition's winning design.

"Preliminary costing has shown that it could has shown that it could be marketed for between \$350 and \$400."

The unit comprises

shower, wash-basin and toilet.

The spokesman added:
"It would take perhaps half a day to install over a central plumbing system."

A Japanese company that builds 1,000,000 houses a year has already expressed an interest in the Sydney unit.

Sydney Moring Herald Article date 9 April 1972.

The Futuro House project was not proving as commercially successful as was hoped.



The Age article 17 July 1970 showing the Futuro House FSM in its Greensborough location.

Name: Futuro House (Formerly of South Morang)



An example of Matti Suuronen's other design the 'Venturo House'.

Name: Futuro House (Formerly of South Morang)