

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 34 *Resource Name or #: Joshua Tree Futuro

P1. Other Identifier: Futuro

*P2. Location: Not for Publication Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County: San Bernardino

*b. USGS 7.5' Quad: Joshua Tree North Date: 2018 T 1N; R 7E; ¼ of ¼ of Sec 6; M.D. B.M.

c. Address: 63055 Sunny Sands Drive City: Joshua Tree Zip: 92252

d. UTM: Zone: 11S; 565662 mE/ 3784567 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

San Bernardino County APN: 0605-290-05-0000 (Please see location map)

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Joshua Tree Futuro is a portable and prefabricated single-story building of circular plan and oblate spheroid form (Photos 1-4). The building is a pre-cast eight-part shell, upper and lower hemispheres each consisting of four joined and sealed quarter sections. The shell is of two-inch thick stressed fiberglass sandwich with polyurethane foam insulation. Sixteen clear acrylic elliptical-form windows, the form of each reiterating the oval shape of the total building, run the equator. Each is approximately 2 x 4 feet, and slightly recessed within the shell with a two-inch lip (Photo 5). The windows are evenly spaced, lending the circular building a sense of exterior sameness from all views. Located beneath these windows are two additional side-by-side view windows in the lower hemisphere, at the building's rear, opposite its entry (Photo 6). Each measures 1.5 x 3 feet. Though the profile of each of these smaller windows remain visible, they are partially infilled by wood panel and serve as ventilation and AC ducts. A solar vent added in 2019, consisting of a small, unpainted pipe vent with bowl capping and small solar panel, is barely visible and centered atop the dome. The metal piping and bowl-form capping are both in-kind to the original design. (Please see continuation sheet page 3 of 33.)

*P3b. Resource Attributes: (List attributes and codes) HP39. Other

*P4. Resources Present: Building Structure Object Site District Element of District Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Joshua Tree Futuro. View: W. April 21, 2021. Daniel Paul

*P6. Date Constructed/Age and Sources: X
Historic Prehistoric Both
1970: Robson, Simon.
<https://thefuturohouse.com/Futuro-House-JoshuaTree-CA-USA.html>

*P7. Owner and Address:
Live Young LC 14011 Leadwell
Street Van Nuys, CA 91405

*P8. Recorded by: (Name, affiliation, and address)
Daniel Paul, 3938 Vista Court
Glendale-La Crescenta, CA 91214

*P9. Date Recorded: July 27, 2021

*P10. Survey Type: (Describe)

*P11. Report Citation: (Cite survey report and other sources, or enter "none.") none

*Attachments: NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record Other (List):

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***P2e.** Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

Location Map

- Northwest corner: 34.200576 -116.288048**
- Northeast corner: 34.200560 -116.286402**
- Southwest corner: 34.196918 -116.288057**
- Southeast corner: 34.196902 -116.286451**



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*P3a. Description, continued

In the round and virtually identical in character across its radius, the front elevation faces east, where within the hemisphere's lower portion is a remote-controlled, counter-balanced retractable trap door entry stair. When closed and lifted, the curved under panel is flush and virtually indistinguishable from the rest of the exterior. The five entry stairs are of one bubble-form fiberglass piece. The drop entry door is supported by two thin-gauge Romex metal cables, one at either side. The entryway itself is a flush, punchout-form rectangular space. Its outer edges in section are correlate and concave to the building's spheroid lower hemisphere.

An egg cup support structure consisting of a radial steel band supported by four sets of evenly spaced angle-cut V-form legs girdles the lower hemisphere, lifting the shell approximately four feet above the ground (**Photo 7**). Both the band, which is approximately 15 feet in diameter, and the legs are of 3-inch diameter steel pole.

The interior is one open-plan room: a fully enclosed and in-the-round 500 square foot space (**Photos 8-10**). The upper hemisphere doubles as ceiling and side walls and is plaster-clad painted fiberglass exhibiting four fiberglass-capped joins where paneled quarter-sections meet. Entirely elevated off the ground, the interior accessed by the drop down entry. Inside, one additional step is embedded in the Futuro's floor, and the entryway is flanked by birch wood wing-walls constructed in 2019 (**Photo 11**).

Centered in the ceiling is a circular vent opening, within which is an original working metal fan, plus an original heating coil (**Photo 12**). Across its lug, the fan retains an original yellow and black warning decal in Helvetica font. An original, conical-form metal hood, flat and open at its bottom, covers this opening, and affixed to it are three adjustable can lights: an in-kind 2019 replacement to those originally included. Alterations in 2019 include birch wainscot around the interior's circumference and integrated and protruding off it sitting areas, shelves, and storage cubbies, also of birch. Flooring is recent AC4 waterproof laminate of a wood veneer design.

Surrounding the Futuro are approximately thirty relocated monzogranite boulders, as desert-themed landscape elements in a spiral pattern around the building. Additional 2019 alterations include a cluster of circular-form concrete stepping pads of different dimensions that serve as a walkway in the ground beneath the dropentry, and a nearby solar panel upon wood pole, approximately four feet high.

The Joshua Tree Futuro is located upon a five-acre desert. A variety of external amenities, completed in 2019, are located approximately 100 feet north of the Futuro (**Photos 13, 14**). Amenities include a wood pergola resting on a pre-existing concrete slab; a plastic water tank approximately seven feet tall and seven feet in diameter; an open shower area clad in stained wood lap and corrugated metal; a swatch of AstroTurf for recreational purposes; and an elevated square plan, flat roofed, metal clad portable restroom on wheels with a tow bar. A polished metal trailer, produced after 1970, is also present upon the property, located at the property's northeast corner.

A pre-existing guy pole is located on the property due northeast of the Futuro, and line

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*P3a. Description, continued

connects it to a standard 35kV series wood distribution pole upon the property **(Photo 15)**.

The terrain is open and barren, flat, and sand-covered desert with creosote shrubs and Joshua trees—a couple of which are on this property. Sporadically present single-family houses are in view nearby, and low hills are visible in the distance.

Alterations and Rehabilitation

In February 2019, the owner relocated the Futuro to Joshua Tree, California, and begun a series of renovations concluded that autumn. Although he was not aware of the Secretary of the Interior's Standards for Rehabilitation, many of his efforts appear to meet them. These include replacement of the original retractable door with an identical one from a disintegrated Futuro II of the same vintage; restoration of the entryway to its former dimensions, and the proper resizing and return of the oval-form window directly above it. Though it is unknown if this Futuro historically possessed single or double-glazed acrylic windows, the owner had single-glazed acrylic windows of historic dimensions custom-blown. Regarding the disintegrated outer legs, the property owner did not undertake an in-kind leg replacement as found on other Futuro IIs with their support band integrated into the lower hemisphere. Instead, he accurately recreated the egg cup support structure Suuronen designed for original European-spec Futuros. The features of this revised stand include four sets of V-form legs, and an exterior band girdling the lower hemisphere, all made from 3" diameter steel pipe as specified in original plans. Other exterior alterations include exterior painting—a common undertaking upon a variety of Futuros which originally had gel coat—and the sealing of exterior join lines, forming one smooth, all-over surface where quarter panels meet. The small metal pipe vent atop the Futuro has been replaced with one nearly in-kind, having a slightly different bowl-form cap, and an added solar panel tops it.

In place of the lost interior elements, the owner has constructed built-in furniture and wing walled entryway of birch wood. Though not indicative of those originally in this Futuro, the new furnishings and fixtures do not detract from the ability to experience the circular, open-plan interior character Futuros historically possessed, retaining the ellipsoidal dome ceiling and all-around radius of oval windows in full view. The 2019 built-ins are ultimately reversible within the Futuro in a manner that would not diminish the primary, character defining features of this Futuro as an example of its kind. Additionally, the original asbestos popcorn ceiling is lost, revealing the upper dome with its interior joins. Interior ceiling and walls, painted white, are the fiberglass shell itself. Atop the ceiling, the original vent canopy remains, with original fan and heating element within it. The lightolier monopoints upon the canopy are similar, though not wholly in-kind replacements.

Of all of the above, the most obvious change to this Futuro is the loss of various interior amenities originally installed by the Futuro Corporation. It may be noted that both European and US manufacturers and distributors presented purchase of the shell alone, with the most basic of plug-in utility hookups, as a viable option. This option informs the intentional, wide-ranging adaptability historically associated to the Futuro. Though Suuronen initially designed what later became the Futuro as a portable *apres-ski* cabin for a snowy mountain setting, Oy Polykem AB—its primary manufacturer—researched and developed the Futuro as portable and prefabricated single-family house (Donaldson, Section 8, Page 16). From the moment they were named, Futuros were marketed for any variety of uses. Thusly, the features rendering this and other intact Futuros historically significant are first and foremost embodied in their prefabricated, lightweight fiberglass shell, plus the form, design details, and other materials associated with it.

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*Resource Name or # (Assigned by recorder) Joshua Tree Futuro

B1. Historic Name: Futuro

B2. Common Name: Joshua Tree Futuro

B3. Original Use: Recreation (Club Room)

B4. Present Use: Lodging

*B5. Architectural Style: High Tech

*B6. Construction History: (Construction date, alterations, and date of alterations)

(Please see timeline on continuation sheets 11 and 12 of 34)

*B7. Moved? No Yes Unknown Date: Feb 2019 Original Location: Lake Geneva, Wisconsin

*B8. Related Features:

B9a. Architect: Matti Suuronen

b. Builder: Futuro Corporation

*B10. Significance: Theme: Architecture

Area: Joshua Tree, California

Period of Significance: 1970

Property Type: Building

Applicable Criteria: 3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Joshua Tree Futuro is California Register of Historical Resources eligible under Criterion 3 in the area of Architecture. Substantially documented in Western World architectural history, the Futuro is one of very few examples of a serially produced, synthetic shelter of the High Tech architectural movement that once posited a utopian future full of them. Designed by Finnish architect Matti Suuronen, the Futuro was a functionally conceived, intentionally new shelter solution, shedding any pretense of traditional architecture and specific notions of permanence or monumentality associated with it. The Joshua Tree Futuro expresses the adaptable, lightweight, and portable qualities that Suuronen intended; a now-past vision for future living. Futuros are as rare as they are internationally recognized. The Joshua Tree Futuro is one of fewer than one hundred known to have been made worldwide, fewer than twenty known to exist in the United States, and one of only four in California.

(Please see continuation sheets pages 6 to 15 of 34.)

B11. Additional Resource Attributes: (List attributes and codes.)

HP4. Ancillary Building

HP11. Engineering Structure

HP32. Rural Open Space

*B12. References: Please see continuation sheets.

B13. Remarks:

*B14. Evaluator: Daniel Paul

*Date of Evaluation: July 27, 2021

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*B10. Significance, continued

High Tech, Summary

The Joshua Tree Futuro exists as one of few built projects of any kind from High Tech's early, 1960s-era first-phase, which largely existed as dreams on paper. The Futuro meets nearly every characteristic for the movement as put forth by its two primary architectural historians: Colin Davies and Reyner Banham. Initially perceived as an ethical if not moral alternative to International Style Modernism, the High Tech movement began in London and was centered around the Architectural Association school (AA). The early twentieth century Italian Futurism and the "no-nonsense rationalism" of American engineer Buckminster Fuller informed High Tech, not to mention the Futuro itself.¹ High Tech practitioners strived for a more direct bearing of industrial technology in their designs. To Davies, who authored the authoritative text on the subject, the High Tech practitioner wished "his buildings be judged by the same criteria of performance as other tools of everyday life [...] He wants them to be functional and efficient, not artistic or symbolic."²

High Tech's questioning of International Style Modernism was preceded by many years in Italian Futurism, and specifically the design ideas of architect Antonio Sant'Elia. Though not entirely written by him, a 1914 manifesto articulates his primary ideas and philosophies. This included the rejection of "all avant-garde pseudo-architecture from Austria, Hungary, Germany and America."³ To him, the problem of Modern architecture is not about "rearranging its lines" or leaving a façade bare versus not, but rather the need for a wholly new architecture that honors the special conditions of Modern living. To fulfill this, Sant'Elia proposed an architecture of "sane plan," "Gleaning every benefit from science and technology," the "Perfection of technical methods," and the rational and scientific use of materials."⁴ In words followed by many High Tech practitioners some 50 years later, seemingly including Suuronen himself as he designed the *apres-ski* lodge that would become the Futuro, to Sant'Elia, "we have lost the sense of the monumental, the massive, the static, and we have enriched our sensibilities with a taste for the light and the practical."⁵ The dematerialized and lightweight- the antithesis of monumental, traditional architecture, are common elements of High Tech designs.

To High Tech architects, the spirit of the age resided in advanced technology that architecture must participate in and make use of, not just represent in an artistic or symbolic manner. This is not to say that architecture of the movement's examples, including the Futuro itself, did not adopt imagery that often took on Futuristic, sci-fi overtones, informed by high technology itself. But more than imagery alone, the cues for architecture's new construction materials and assembly methods were to be taken from machines.

¹ Todd Gannon, *Reyner Banham and the Paradoxes of High Tech* (Los Angeles: The Getty Research Institute, 2017), 120.

² Colin Davies, *High Tech Architecture* (New York: Rizzoli, 1988), 6.

³ Banham, *Theory and Design*, 134.

⁴ *Ibid.*, 128.

⁵ Sant'Elia's renderings (none of his work is known to have ever been built) depict a rather industrial-inspired massive, epic, and rather monumental architecture. Though his words and ideas inform High Tech and seemingly inform the Futuro itself, Sant'Elia's Futurism is not a stylistic precursor to the Futuro.

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The technology and machines to be referenced included not only those of industry, transport, communication, flight, and space travel, but also the smaller everyday machines such as vacuum cleaners and refrigerators or electric typewriters—often hermitically enclosed and made of synthetic materials, widely available on the open market during the postwar era.⁶

Regarding imagery, it is worth noting that Suuronen did not, first and foremost, design the Futuro to look like a UFO. Suuronen liked the form as a “nice form to use,” and perceived it as the most efficient practical for its purpose.⁷ The circular plan afforded maximum room in a fairly small plan; the shape was wind resistant and easily shed snow; that the Futuro was lifted off the ground was a condition of its intended movability and to compensate for irregular terrain as needed.⁸ Suuronen selected fiberglass as its primary material on account of its prefabrication and insulation qualities, and before the 1973 oil crisis which quickly rendered the Futuro obsolete, the production of fiberglass was affordable. With the above in mind, in words prescient to the Futuro, Sant’Elia concluded his 1914 Futurist manifesto by set of affirmations, the first of which proposed a “new architecture of cold calculation, temerious boldness and simplicity; the architecture of reinforced concrete, iron, glass, *textile fibres* (author’s italics) and all those replacements of wood, stone, and brick that make for attainment in maximum elasticity and lightness.”⁹ Even more prescient for the Futuro, his third affirmation proposes “that oblique and elliptical lines are dynamic by their very nature, have an emotive power a thousand times greater than that of horizontals and verticals, and there can be no dynamically integrated architecture without them.”¹⁰

Perhaps the work most responsible for bringing these ideas to a new wave of young students and recent graduates AA was the 1960 book *Theory and Design in the First Machine Age*, written by architectural historian and AA instructor Reyner Banham. The book provided a rearview assessment of International Style Modernism, with Futurism and Fuller as a proposed way forward. Banham allocates to Fuller the book’s concluding thoughts, citing a long passage of Fuller’s own words filleting International Style Modernism. Among Fuller’s passages, “The ‘International Style’ brought to America by the Bauhaus innovators, demonstrated fashion inoculation without necessity of knowledge of the scientific fundamentals of structural mechanics and chemistry [...] the International Style ‘simplification’ then was but superficial. It pulled off yesterday’s exterior embellishment and put on instead formalised novelties of quasi-simplicity, permitted by the same hidden structural elements of modern alloys that had permitted the discarded Beaux-Arts garmentation. It was still a European garmentation. [...] In every such illusory way did the ‘International Style’ gain dramatic sensory impingement on society as does a trick man gain the attention of children.”¹¹

⁶ Davies, *High Tech*, 6.; Colin Davies, *A New History of Modern Architecture*. London: Laurence King Publishing, 2014: 344.

⁷ Vernissage TV, “Futuro. House of the Future” [interview with Jonieke Van Es], YouTube Video, 6:42, June 30, 2011, <https://www.youtube.com/watch?v=SjuErc7ZCps&t=269s> (accessed July 7, 2021).

⁸ Simon Robson, “The Futuro House - Concept, Design & Manufacturing,” The Futuro House.com, March 31, 2018. https://thefuturohouse.com/futuro_house_concept_and_design.html (accessed July 6, 2021).

⁹ Banham, *Theory and Design*, 129.

¹⁰ *Ibid.*, 134.

¹¹ *Ibid.*, 326.

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Contemporaneous Developments

Though Suuronen's Futuro appears to be informed by Futurist concepts and Fuller's work, Suuronen's design is very much of its era, and in direct context and influence of contemporaneous 1960s era High Tech practitioners. Chief among these was collective of young, recent AA grads known as "Archigram." According to Davies, "Archigram encouraged architects to look beyond the construction industry, borrowing technologies from other fields, and [allowing] these technologies to influence the look of their buildings."¹² In Archigram's alternative worlds, technology is used to "emancipate the leisure subject" and toward "eradication of the architectural object" in the words of architectural historian Todd Gannon.¹³

This can be seen Archigram member Peter Cook's "Plug-In City" of 1964: a substantial, if not infinite, open-frame metal superstructure having a multitude of prefabricated "clip-on" or "plug-in" living pods not wholly unlike the Futuro itself, to be delivered by helicopter or airplane (**Figure 1**).¹⁴ The overall portrayal of "Plug-In City" is highly dematerialized, and questions the need for architecture to be a formal composition of any kind.¹⁵ Closely related to the above, fellow Archigram member Warren Chalk developed "Capsule House," also in 1964, that emphasized the mobility, expendability, and adaptability that were key Archigram concepts (**Figure 2**).¹⁶ Each living capsule was able to be integrated into others to form communities as desired, and allowed for various forms of interior rearrangement—small living spaces encouraged interaction with nearby plug-in neighbors. Cook and Chalk's capsules are biomorphic, devoid of right angles, all-over hermetically enclosed spaces that appear to be made from similar synthetic materials as the Futuro. The following year, fellow Archigram member David Greene designed "Living Pod"—an inflatable, vacuum-sealed, organ-like portable house intended to be movable if not nomadic, infilled with any manner of technical gadgetry for day-to-day life, with self-leveling compression legs; the Futuro itself is elevated on legs in part for the possibility of terrain adjustment (**Figure 3**). Greene envisioned his pod as either a plug-in element or a standalone one in an open landscape. It was the same year as this latter work that Suuronen was asked by his friend Dr. Jaakko Hiidenkari to design an *apres-ski* cabin that three years later would become the first Futuro: a technology-informed, capsule-like pod that is a decidedly non-architectural shelter, akin to the above-mentioned Archigram works.

Though Archigram appears to be the most prescient contemporary influence upon the Futuro, the trends of a highly technological, dematerialized architecture of plug-in components, and an architecture using technology to "emancipate the leisure subject" were present in other, formative projects that preceded Archigram. Kenzo Tange's Metabolist 1960 Tokyo Bay project featured an extended spine across the water into which various prefabricated, factory produced houses could be plugged in, and British architect Cedric Price's 1961 "Fun Palace" project envisioned a massive, open metal superstructure that Plug-In city, not to mention the much later Pompidou Cultural Center, clearly references.¹⁷

¹² Davies, *A New History*, 345.

¹³ Gannon, *Reyner Banham*, 178.

¹⁴ Davies, *High Tech*, 11.

¹⁵ Davies, *A New History*, 344–345.

¹⁶ Iablog "Archigram, Warren Chalk, Capsule Homes, 1964," *Atlas of Interiors*, March 9, 2014, <http://atlasofinteriors.polimi-cooperation.org/2014/03/19/archigram-capsulehomes-1964/> (accessed July 8, 2021).

¹⁷ Davies, *A New History*, 365.

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The Fun Palace was intended for the pure leisure and pleasure that high technology was to afford mankind. The Futuro was originally designed as a leisure space: the prefabricated pod as *apres-ski* lodge. This particular Futuro was originally purchased by Playboy Enterprises and started life as a clubroom at the Lake Geneva Wisconsin Playboy Resort (**Figure 4**).¹⁸

All of the above mentioned 1960s-era High Tech works existed upon paper only. Among the first works associated with the genre to actually be completed was the Nicholas Grimshaw/Terry Farrell “Service Tower for Student Housing Project” located at the Anglican International School in Paddington, London, from 1967. Clearly Archigram-inspired, the project featured a multistory metal shaft installed in place by a crane, and having multi-floor circulation of a single, wrap-around spiral within which were “plugged in” thirty-five hermitically enclosed bathroom pods of the same glass reinforced polyester (“GRP;” “fiberglass”) as the Futuro itself. The entirety of this spiraling shaft with its pods was faced in plexiglass and “clipped on” to an older, Victorian era multistory building that served as student housing.

Whether as a bathroom, a dwelling unit, or something else, the prefabricated clip-on or plug-in pod became something of a trend through the late 1960s and early 1970s. Among the better-known built projects exhibiting this approach were Moshe Safdie’s “Habitat ‘67” project constructed at the Expo 67 world’s fair in Montreal, which featured 365 construction modules, and the 1972 Nagakin Capsule Tower located in Tokyo, designed by Kisho Kurokawa, of 140 prefabricated steel and concrete boxes intended as “minimal living pods for single people.”¹⁹ Both are listed landmarks in their respective countries. Though some past proposals considered the possibility of a Futuro Hotel, showing multiple pods off a single vertical shaft, the Futuro was a pod, one capable, like David Green’s Living Pod, of a standalone existence provided it was “plugged in” to proper utilities to make it livable. In its aesthetics, materials, design, and intent, the Futuro is one of the very few instances of an actually made High-Tech “pod” of the kind envisioned by groups like Archigram. Similar conceptual works including Habitat 67 and Nagakin, were concrete cubicles primary intended for combination.

Based on the above, the Futuro fits squarely within both Davies’ and Banham’s definitions of High Tech architecture. According to Davies, the main features of High Tech are “The use of synthetic materials like steel and glass rather than natural materials like wood and brick; an almost moralistic code of honesty of expression with no sham structures or false facades; a preference for prefabrication rather than on-site construction and the expression of that preference in the form of that building; and a tendency to ignore functional and societal distinctions, combining different human activities in large flexible spaces.”²⁰ To Banham, the High Tech ethic consisted of “honesty, clarity, and simplicity (unity), exposure of structure, the use of certifiably modern materials, and the absence of ornament.”²¹ In meeting the above definitions, the Futuro is made from GRP—a relatively new synthetic material; Suuronen selected the Futuro’s ellipsoid form from a place of spatial efficiency relative its fairly small dimensions. The Futuro otherwise features no sham structures, false facades, or ornament of any kind.

¹⁸ Simon Robson, “Rockland [Update 111216],” *The Futuro House*, November 12, 2016 <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html> (accessed July 6, 2021).

¹⁹ Safdie Architects “Habitat ‘67,” *Safdie Architects*. Safdie Architects, LLC <https://www.safdiearchitects.com/projects/habitat-67> (accessed July 1, 2021); Davies, *A New History*, 366.

²⁰ Davies, *A New History*, 345.

²¹ Gannon, *Reyner Banham*, 122.

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The Futuro is prefabricated, and though its space is not large, it is total in its open plan flexibility and was so even before this particular example was gutted many years ago. Albeit small-dimensioned, Futuro spaces “ignore functional and societal distinctions” in their openness.²²

Many architectural historians with some knowledge of High Tech as a style assume that an example must have an “exposure of structure” akin to that seen upon the Pompidou Center, which is often cited as one of the style’s primary examples. Davies actually refers to the Pompidou as a later phase High Tech, and might be worth noting that the Futuro’s GRP shell is its structure, and therefore its structure is exposed to the same degree as that of the Pompidou itself.²³

Other Early Precedents

The Futuro employs a glass reinforced polyester, also called fiberglass or GRP as its primary material. Matti Suuronen graduated with an architecture degree from the Helsinki Technical Institute 1961 and while in school during the late 1950s, he attended a four-day workshop for working with GRP, a then fairly new material on the market.²⁴ GRP’s positive qualities included its relative strength, affordability, its ability to be prefabricated, and its insulating qualities. His first work in the material was a dome for a granary silo in Seinäjoki, Finland. Among the earliest projects to use the material was a widely published with which Surronen may have been familiar: the 1956 “House of the Future” by British husband and wife architects Alison and Peter Smithson (**Figures 5-6**). Better known for completing one of the very first projects identified as “Brutalist” architecture (Hunstanton School, Hunstanton England, 1954), their House of the Future featured was exhibited at the 1956 Ideal Home exhibition in London, and its primary material was “fiber-reinforced plastic” (“Fiber Reinforced Polymer”; “FRP”—the same basic material of the Futuro, and a term used interchangeably with GRP). Upon their House of the Future, FRP walled volumes organically arose from FRP floors, all panels joined by synthetic gaskets in an all-over seamless manner akin to American car design of that era for a “complete aesthetic of panels and joints,” in the words of Todd Gannon.²⁵ In this and other early works such as their Sheffield University Extension project, the Smithsons exhibited a “blunt and uncompromising statement of structure and function in every part.”²⁶ The Futuro house, though simpler and smaller, can be perceived in the same terms, and in character is a similar, in-plastic and unified expression whereby joins and panels are similarly “of a piece,” so to speak.

Beyond all of the above, it is perhaps the work of Buckminster Fuller himself, whom Banham lauded and Davies referred to as “the father of High Tech,” that informs the Futuro in the most direct manner.²⁷ Fuller was a visionary and invented a new way of looking at the world in a clear and direct manner that didn’t decouple, let alone elevate, the human from the rest of the physical environment.²⁸ As all later used in the Futuro, by the 1920s, Fuller was already exploring the possibilities of structures delivered by air, the use of new synthetic materials, and the better efficiencies of circular structures, including his widely documented interest in various domes. The parallels are most clear between the Futuro and Fuller’s 1927 Dymaxion House, and even more so with Fuller’s 1946 Wichita Dwelling machine project.

²² Davies, *A New History*, 345.

²³ Davies, *A New History*, 351.

²⁴ “Matti Suuronen: Finnish Architect, Known by Futuro” *People Pill*. Prong Media New York <https://peoplepill.com/people/matti-suuronen> (accessed July 6, 2021).

²⁵ Gannon, *Reyner Banham*, 37.

²⁶ *Ibid.*

²⁷ Davies, *High Tech*, 16.

²⁸ Davies, *A New History*, 220.

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In his various Dymaxion projects, which also included a Dymaxion Bathroom, Dymaxion Deployment Unit and a rather alien looking Dymaxion Car, Fuller strived to optimize the efficiency of technology and “do more with less.”²⁹ The Dymaxion House featured a centralized, hexagonal plan with all services set within a central shaft. Futuros as ordered with them also placed them there, and the Dymaxion house also incorporated plastics, in its instance as light prisms within the interior. Fuller called the house a “machine for the efficient and comfortable conduct of family life under shelter,” designing all aspects of it with an eye toward “whatever will contribute most effectively and economically to that end.”³⁰

As the Futuro would later do, Fuller’s 1946 Wichita Dwelling Machine project was one that “approached design not as an aesthetic problem,” but instead as “the question of a teleologically formulated task and its logical solution.”³¹ Originally built at an aircraft factory, the Wichita project, itself unintentionally UFO-like, features the lightweight, synthetic material of thin-gauge aircraft metal, is in-the-round, with a surrounding band of windows, with an airspace between the ground and the floor, and a ventilator centered within the roof (**Figure 7**). In a perfectly apt description of the Futuro itself, the Wichita Machine was described as “like a civilization station inhabited by people outside of any urban context.”³²

Timeline/History³³

Circa January 1970: Janesville, Wisconsin resident Larry Tracy, with friend Norman Sauey Jr., visited Futuro Enterprises (Futuro Corporation) in Philadelphia to purchase a Futuro. Based in Philadelphia and overseen by Leonard Fruchter, Futuro Corporation was the exclusive American manufacturer under contract to the Finnish company Oy Polykem AB responsible for their US production. Instead of purchasing a Futuro, Tracy returned as the Corporation’s distributor for four states: Minnesota, Wisconsin, Michigan, and Illinois. Tracy promptly met with Playboy Enterprises in Chicago, selling them a unit.

Jan-Feb 1970: The Futuro was manufactured by Futuro Corporation, who named the model “Futuro II”—the American-spec version, with some modifications from the Polykem AB models seen across Europe and elsewhere.

Feb-Mar 1970. The Futuro began as a standalone clubroom at the recently opened Playboy Resort in Lake Geneva, WI. The September 1970 issue of *Playboy Magazine* features an article about Futuros in general. As of their twentieth anniversary in December 1973, *Playboy Magazine* identified this article as the most popular in their run.

²⁹ Ibid., 220-221.

³⁰ Joachim Krausse, ed., *Your Private Sky: R. Buckminster Fuller* (Baden, Switzerland: Lars Muller Publishers, 2017), 135.

³¹ Ibid., 246.

³² Ibid.

³³ Prior to its present owner and location, all earlier information upon this timeline is made possible by the thorough research of Simon Robson upon his website devoted to the documentation of the Futuro, and every specific example known to have been made. The Joshua Tree Futuro was also known as the Janesville Futuro and Rockland Futuro for its presence in each of those two Wisconsin communities. See Simon Robson, “The Futuro|Rockland,” *The Futuro House* <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html>; Simon Robson, “Janesville, WI, USA,” *The Futuro House* <https://thefuturohouse.com/Futuro-House-Lost-Locations.html#janesville>; Simon Robson, “The Futuro| Joshua Tree,” *The Futuro House* <https://thefuturohouse.com/Futuro-House-JoshuaTree-CA-USA.html> (all three websites accessed July 6, 2021).

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Dec 1971: The Futuro was relocated off the Playboy Resort to a plot of land owned by Larry Tracy south of Janesville, where it became a local fixture through the early 1970s (**Figure 8**). Photographs from this era depict a blue exterior, with a red-colored fully furnished interior (**Figure 9**).

Mid-1970s: relocated elsewhere in Janesville, Wisconsin.

Circa 1981: Relocated to Sun Prairie, Wisconsin where it was integrated into the Galaxy Plaza, presumably named after the Futuro (**Figure 10**), which served as a beauty salon and video arcade. The interior was most likely gutted during this time.

Circa 1983-84: The Futuro was relocated to Christian Children's Camp "Camp Wakonda" in Oxford, Wisconsin, where it was used as a computer room. The interior was painted lavender and purple with black accents at interior joins.

Circa 1996: Doug Flahaut purchased the Futuro, relocating it to his rural property off Highway J outside of Rockland, Wisconsin (**Figures 11, 12, 13**).

Oct 21 2018: Music Producer Ronald Jackson of Los Angeles purchased the Futuro from Flahaut, and relocated it to California.

Feb-Mar 2019: Jackson assembled the Futuro on his five-acre desert parcel in Joshua Tree (**Figure 14**).

Nov 1, 2019: Jackson finished renovations, and opened the Futuro to the public as an Airbnb lodging rental named "Area 55" (**Figure 15**).

CRHR Criteria Consideration for Moved Properties

The Joshua Tree Futuro appears to be California Register of Historical Resources eligible under Criterion 3 despite the fact that it has been relocated. This is in large part because Suuronen purposely designed Futuros to be movable. Informing their portability is the fact that Suuronen designed the Futuro to rest on elevated metal stands that barely touched the ground, with virtually no grading required. Oy Polykem AB and the US Futuro Corporation both marketed their adaptability of use, plan, and any variety of location, terrain, or topography. This adaptability and intentional mobility was a distinctive feature of this shelter type, informed by nomadic visions intrinsic to 1960s-era techno-utopian "future." The Futuro is one of the very few shelter types of any kind—one of even fewer to be mass produced—to physically actualize this vision, of otherwise dreams on paper by Archigram and similar 1960s-era High Tech collectives.

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Integrity

The Joshua Tree Futuro has seen substantial alteration to its interior amenities and materials, the majority of which were removed circa 1981. Lost features include a kitchenette, cabinets, a bathroom, a central fireplace, carpeting, and built-in furniture. Their loss has compromised most of the spatial configurations, materials, and features once present within the Futuro shell. The expression of the interior space as perfectly circular remains (**Figure 9; Photos 8, 9**). As expressed both inside and out, the circular shell and the interior space it defines are distinct and substantial character defining features of the Futuro.

The large-scale loss of interior amenities is an undeniable change to the Joshua Tree Futuro's integrity. Fewer than one hundred examples were ever made of the Futuro: a highly documented, appreciated, and scholastically considered property design. Any Futuros retaining their essential character defining features fall within a class of historical resources so rare that loss of integrity to this degree might remain acceptable for their eligibility. Essential character defining features retained by the Joshua Tree Futuro include: the lightweight fiberglass shell and the circular-form interior space that it defines; its elevated metal support structure and legs; its band of oval-form windows, and the drop-down entry door. It is these features that identify any given Futuro as such.

Part of a Futuro's distinction is its intentional, thoughtfully considered design for both movability and adaptability. Movability and terrain adaptability are why the Futuro was designed to be elevated upon legs rather than planted on the ground. The broad adaptability of use is why the Futuro Corporation marketed shells alone as primary versus secondary options, equal to fully furnished examples. All US-spec Futuros, including the Joshua Tree Futuro, had outsourced suppliers for their original interior amenities and materials, none of which Surronen designed or otherwise selected.

The parcel upon which the Joshua Tree Futuro was relocated to in 2019 was originally an open and undisturbed desert property, that contained one concrete slab and two wood utility poles. The addition of amenities such as a standalone bathroom (on wheels), a pergola, metal trailer, water tank and shower spaces are all reversible additions, situated at least 100 feet away from the Futuro. Despite the loss of interior amenities and change of setting, the Joshua Tree Futuro retains historic integrity.

This Futuro has been relocated multiple times and placed in a variety of different settings. Though typically this may constitute a loss of integrity relative to both *location and setting*, Futuros were specifically designed for such changes. That this Futuro has been relocated to a radically different setting than where it began, informs its historic intent as a portable and adaptable property type. Insofar as the Futuro's significance is embodied in its shell and related features, the property retains integrity of *design*, as it clearly reads, both inside and out, as a historic-era Futuro. An indication of its intended portability, that the Joshua Tree Futuro is elevated above ground it touches only lightly is an important, retained aspect of both its *design* and *setting*. The property retains integrity of *materials*, which include its GRP fiberglass shell, reconstructed tube steel stand, and acrylic windows. The wholesale loss of interior amenities and the patching over of its exterior joints informing its assembly compromises integrity of *workmanship*. Insofar as Futuros are wholly prefabricated, integrity of workmanship may not be of the same importance as hand-constructed homes or other buildings.

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Integrity of both *association and feeling* are retained. Expressive of its historical association to architect Matti Suuronen, this Futuro feels like a latently sci-fi 1960s creation, informed by a future vision of capsule and podism of that decade's High Tech movement. In use as an Airbnb lodging facility, its historic association to a leisure use is likewise retained.

Period of Significance

The period of significance for the Joshua Tree Futuro is 1970, the year of manufacture. After an initial visit to the Futuro Corporation in January of 1970, Larry Tracy, who became a distributor for upper Midwest states, sold this Futuro to Playboy Enterprises of Chicago. It began occupancy by March 1970, when Playboy installed it as a club room at the recently completed Lake Geneva, Wisconsin, Playboy Resort.

Historic Property Boundary

The Futuro's historic property boundary is the five-acre parcel upon which it sits, located at 63055 Sunny Sands Drive, Joshua Tree, San Bernardino County, CA, Assessor's Parcel Number 0605-290-05-0000. Its legal boundary is "Lot 71 Sec 6 TP 1N R 7E, excluding mineral rights reservation of record."

***B12. References** (Give full citations including the names and addresses of any informants, where possible.):

Banham, Reyner. *Theory and Design in the First Machine Age*. Cambridge, MA: The MIT Press, 1992.

Davies, Colin. *A New History of Modern Architecture*. London: Laurence King Publishing, 2014.

_____. *High Tech Architecture*. New York: Rizzoli, 1988.

Gannon, Todd. *Reyner Banham and the Paradoxes of High Tech*. Los Angeles: The Getty Research Institute, 2017.

Krausse, Joachim, ed., *Your Private Sky: R. Buckminster Fuller*. Baden, Switzerland: Lars Muller Publishers, 2017.

lablog. "Archigram, Warren Chalk, Capsule Homes, 1964." *Atlas of Interiors*. March 9, 2014, <http://atlasofinteriors.polimi-cooperation.org/2014/03/19/archigram-capsulehomes-1964/>.

"Matti Suuronen: Finnish Architect, Known by Futuro." *People Pill*. Prong Media New York. <https://peoplepill.com/people/matti-suuronen>.

Robson, Simon. "Janesville, WI, USA." The Futuro House. <https://thefuturohouse.com/Futuro-House-Lost-Locations.html#janesville>.

_____. "The Futuro | Joshua Tree." The Futuro House. <https://thefuturohouse.com/Futuro-House-JoshuaTree-CA-USA.html>.

_____. "The Futuro House - Concept, Design & Manufacturing." *The Futuro House*. March 31, 2018. https://thefuturohouse.com/futuro_house_concept_and_design.html.

_____. "The Futuro | Rockland [Update 111216]." *The Futuro House*. November 12, 2016. <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html>.

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_____. "The Futuro | Rockland." *The Futuro House*. <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html>.

Safdie Architects. "Habitat '67." *Safdie Architects*. Safdie Architects, LLC. <https://www.safdiearchitects.com/projects/habitat-67>.

Van Es., Jonike, interview. Vernissage TV. "Futuro. House of the Future." YouTube Video. 6:42. June 30, 2011. <https://www.youtube.com/watch?v=SjuErc7ZCps&t=269s>.

Vernissage TV. "Futuro. House of the Future" [interview with Jonieke Van Es]. YouTube Video, 6:42. June 30, 2011. <https://www.youtube.com/watch?v=SjuErc7ZCps&t=269s>.

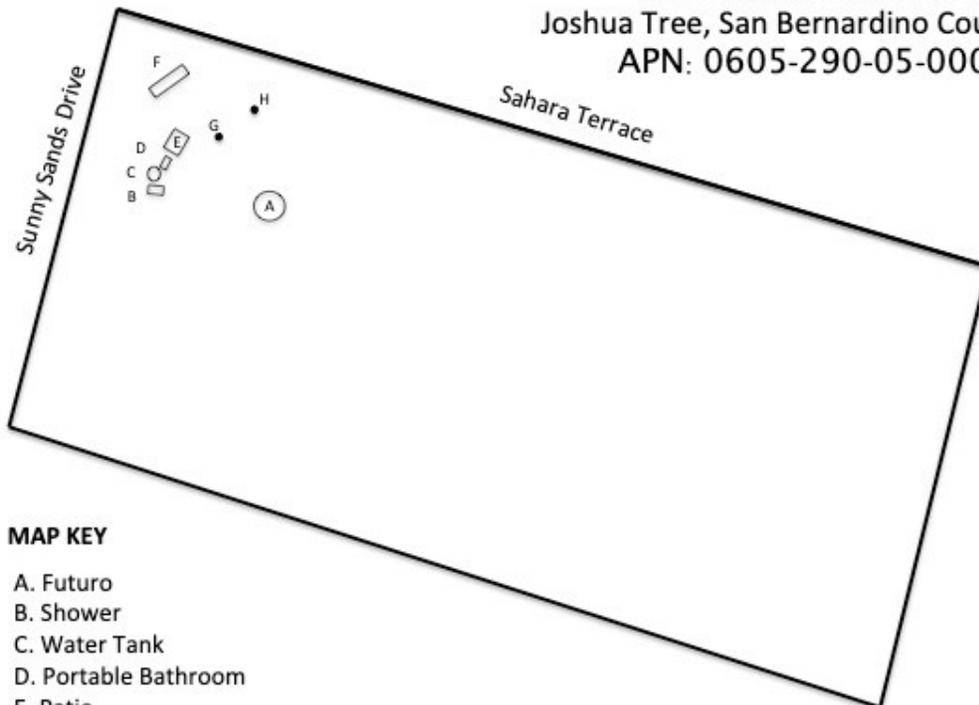
Zeinstra, Jurjen. "Houses of the Future." *OASE* 25, no. 75 (2008): 204. <https://www.oasejournal.nl/en/Issues/75/HousesOfTheFuture#203>

SKETCH MAP

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*Drawn by: Terri Farley *Date of map: July 14, 2021

JOSHUA TREE FUTURO
63055 Sunny Sands Drive
Joshua Tree, San Bernardino County, CA
APN: 0605-290-05-0000



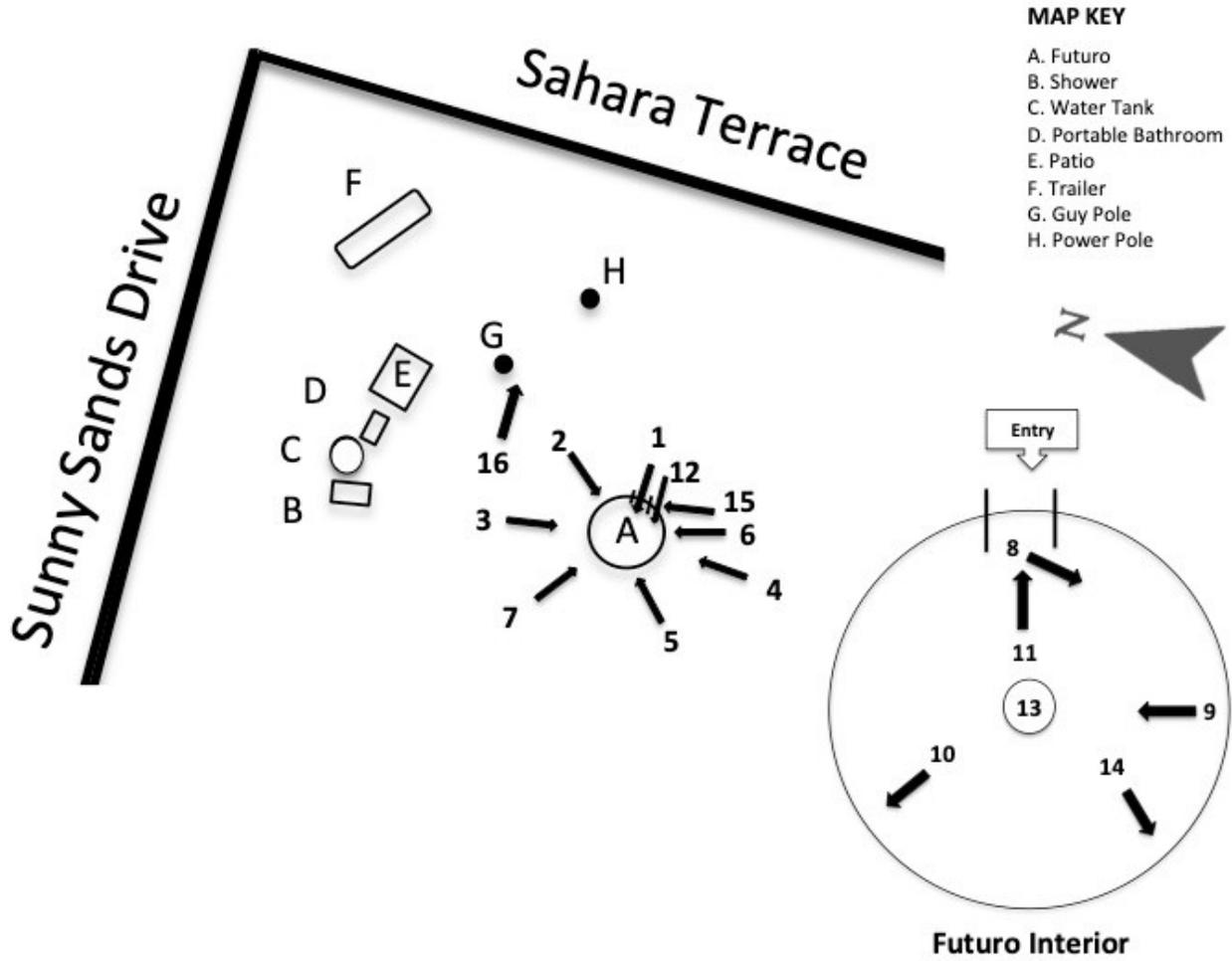
MAP KEY

- A. Futuro
- B. Shower
- C. Water Tank
- D. Portable Bathroom
- E. Patio
- F. Trailer
- G. Guy Pole
- H. Power Pole



PHOTO KEY

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Name of Property: Joshua Tree Futuro
City or Vicinity: Joshua Tree
County: San Bernardino
State: California
Photographer: Daniel Paul
Date Photographed: April 21, 2021 unless otherwise indicated

Description of Photograph(s) and number, include description of view indicating camera:

- 1 of 15 East (front) elevation, view west
- 2 of 15 East (front) elevation, view west-southwest
- 3 of 15 North (side) elevation, view south-southwest
- 4 of 15 South (side) elevation, view north-northeast
- 5 of 15 Window detail, south elevation, view north and up
- 6 of 15 West (rear) elevation, view east
- 7 of 15 Replacement egg cup support, view west
- 8 of 15 Replacement built-in furniture, view west
- 9 of 15 Interior, view north
- 10 of 15 Replacement birch wainscot and laminate flooring, view northwest and down
- 11 of 15 Replacement birch wingwalls at entry, view east
- 12 of 15 Original vent canopy and fan, in-kind replacement monopoint lights (March 26, 2021)
- 13 of 15 North (side) elevation within desert context, view south-southeast
- 14 of 15 Supporting elements including from left to right: outdoor shower, water tank, portable bathroom, covered patio, trailer, and guy pole, view north
- 15 of 15 Guy pole and utility transmission pole, northern portion of parcel, view southeast

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Photo 1 East (front) elevation, view west



Photo 2 East (front) elevation, view west-southwest



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Photo 3 North (side) elevation, view south-southwest



Photo 4 South (side) elevation, view north-northeast



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Photo 5 Window detail, south elevation, view north and up



Photo 6 West (rear) elevation, view east



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Photo 7 Replacement egg cup support, view west



Photo 8 Replacement built-in furniture, view west



PHOTOGRAPH RECORD

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Photo 9 Interior, view north



Photo 10 Replacement birch wainscot and laminate flooring, view northwest and down



PHOTOGRAPH RECORD

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Photo 11 Replacement birch wingwalls at entry, view east



Photo 12 Original vent canopy and fan, in-kind replacement monopoint lights (March 26, 2021)



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Photo 13 North (side) elevation within desert context, view south-southeast



Photo 14 Supporting elements including from left to right: outdoor shower, water tank, portable bathroom, covered patio, trailer, and guy pole, view north



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Photo 15 Guy pole and utility transmission pole, northern portion of parcel, view southeast



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Figure 1 Archigram (Peter Cook), *Plug-In City* (detail), 1964.
<https://www.dezeen.com/2020/05/12/archigram-plug-in-city-peter-cook-dennis-crompton-video-interview-vidf/>

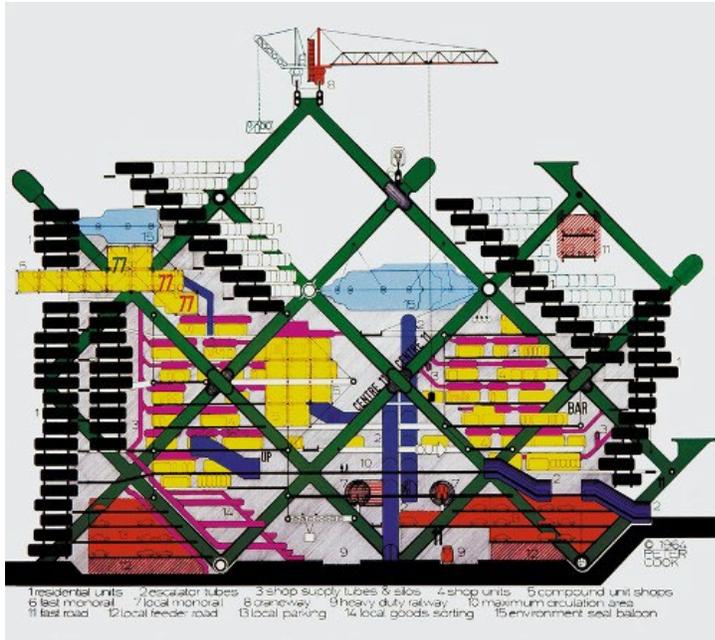
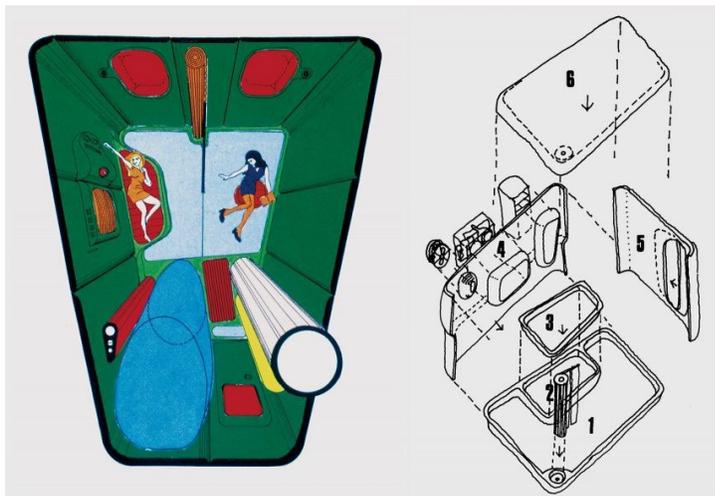


Figure 2 Archigram (Warren Chalk), *Capsule Homes*, 1964.
<https://www.dezeen.com/2020/05/12/archigram-plug-in-city-peter-cook-dennis-crompton-video-interview-vidf/>



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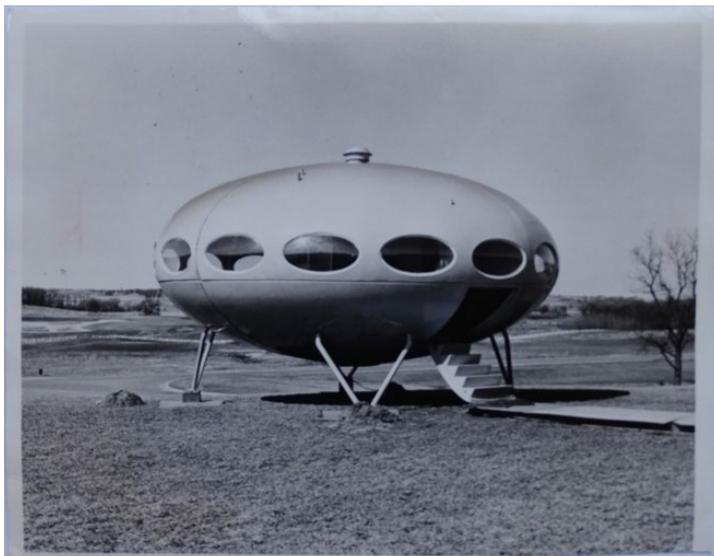
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Figure 3 Archigram (David Greene), *Living Pod*, 1965.

<https://misfitsarchitecture.com/2016/07/21/1930-de-urbanism/#jp-carousel-113749>



Figure 4 The earliest image and only known picture of the Joshua Tree Futuro at the Lake Geneva, WI Playboy Resort, its original home 1970-1971. Courtesy Simon Robson, [https://thefuturohouse.com/Futuro- Rockland-Wisconsin-USA.html](https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html) (Update 051017).



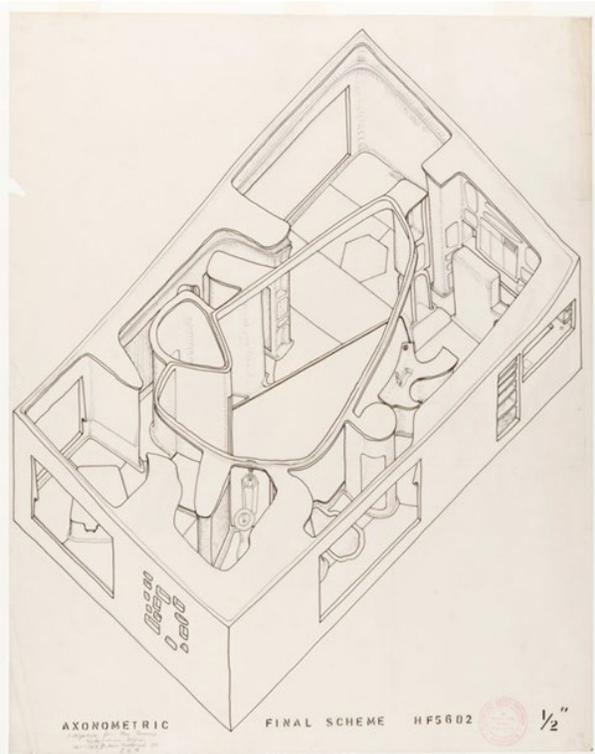
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Figure 5 Alison and Peter Smithson, all fiberglass *House of the Future*, 1956.
<https://www.oasejournal.nl/en/Issues/75/HousesOfTheFuture#203>.



Figure 6 Alison and Peter Smithson, House of the Future, 1956. Axonometric view. Courtesy Canadian Centre for Architecture. www.cca.qc.ca/en/articles/37650/drawing-the-house-of-the-future.



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Figure 7 A comparison between R. Buckminster Fuller's Wichita Dwelling Machine ("Dymaxion Dwelling Machine"), 1946, and the Joshua Tree Futuro. Fuller image: <https://cpb-us-e1.wpmucdn.com/blogs.uoregon.edu/dist/1/15698/files/2018/02/buckminster-fullers-dymaxion-house-woovxe.jpeg>; Futuro: Daniel Paul, April 2021.

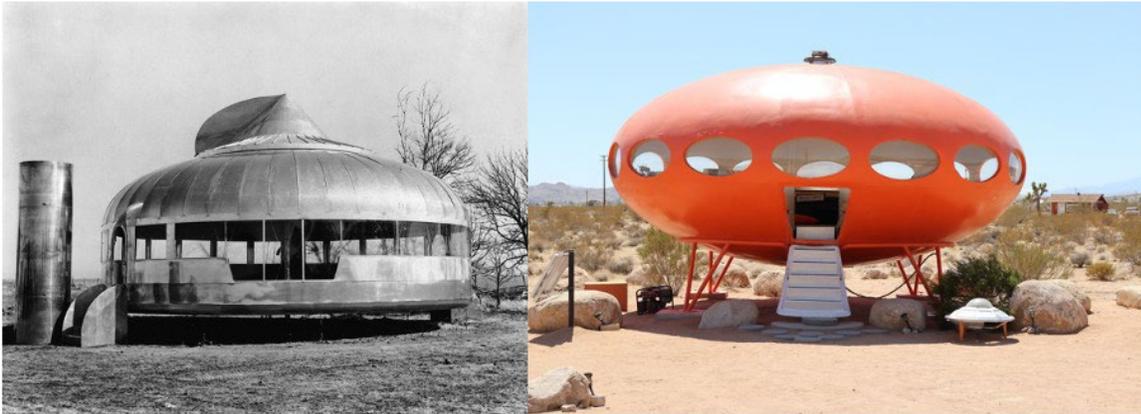


Figure 8 December 24, 1971 *Janesville Gazette* image of Joshua Tree Futuro being moved from Lake Geneva, WI, Playboy Resort. Courtesy Simon Robson, [https://thefuturohouse.com/images/futuros/Janesville Gazette_122471_detail.jpg](https://thefuturohouse.com/images/futuros/Janesville_Gazette_122471_detail.jpg).



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Figure 9 Futuro Distributor Larry Tracy, who initially sold the Joshua Tree Futuro to Playboy Enterprises in 1970, back inside the Joshua Tree Futuro, which he ended up with after it was moved from the Playboy Resort in 1971. *Janesville Gazette*, c. early 1970s. Courtesy Simon Robson, <https://thefuturohouse.com/Futuro-House-Lost-Locations.html#janesville> (Update111216).



Figure 10 The Joshua Tree Futuro in Sun Prairie, WI, c.1982, when it was part of Galaxy Plaza, presumably named after it. The Futuro is believed to have been gutted during this time, its door lost, and main entryway enlarged. Courtesy Simon Robson, https://thefuturohouse.com/images/futuros/sun_prairie_museum_futuro.jpg.



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Figure 11 The Joshua Tree Futuro on the rural property of former owner Doug Flahaut of Rockland, Wisconsin, c. 2018. Courtesy Simon Robson, <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html> (Update 050518).



Figure 12 Interior Joshua Tree Futuro when owned by Dough Flahaut of Rockland, WI, c. 2018. Courtesy Simon Robson, <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html> (Update 111216).



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Figure 13 Interior of Joshua Tree Futuro when owned by Dough Flahaut of Rockland, WI, c. 2018. The joins and the centered canopy vent seen in Figure 12 are retained. Courtesy Simon Robson, <https://thefuturohouse.com/Futuro-Rockland-Wisconsin-USA.html> (Update 111216).



Figure 14 Joshua Tree Futuro installation, November 2019. Courtesy Ronald Jackson, <https://www.instagram.com/p/B42ny2sHmT8/>.



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Figure 15 Interior rehabilitation, 2019. Courtesy Ronald Jackson, <https://thefuturohouse.com/Futuro-House-JoshuaTree-CA-USA.html> (update 112019).

