

WALKER**the Gradient****Enter the Matrix: An Interview with Ken Isaacs**

Ken Isaacs, *Beach Matrix*, installation view in Westport, Connecticut, c. 1967. Photo courtesy the artist

This conversation is republished from the exhibition catalogue Hippy Modernism: The Struggle for Utopia (Walker Art Center, 2015; Andrew Blauvelt, ed.).

The highly individual practice of American architect and designer Ken Isaacs (born 1927, Peoria, Illinois) challenged conventional definitions of modernism through designs that sought radical solutions to the spatial and environmental challenges of modern life. Fueled by the optimism that defined the postwar period, Isaacs began working with the new forms and technologies offered by modernism and advances in science, at the same time shunning the consumer-laden values of the American dream. The result was a lifelong commitment to a

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FILED TO
Design

DATE
Nov 16, 2015

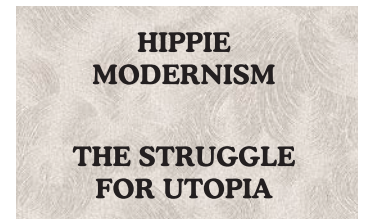
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populist form of architecture that, because of its low cost and ease of construction, allowed a broad range of publics to participate in the design process.

These designs, all founded on Isaacs's concept of the matrix or total environment, were built using a three-dimensional grid and took the form of modular units called Living Structures that unified the multiple functions of furniture and home, including nomadic, sustainable architectural dwellings or Microhouses. Isaacs also applied his matrix idea to various multimedia information systems, most notably The Knowledge Box (1962), which was re-created by Isaacs in 2009, an experimental learning chamber that eschewed the traditional classroom for "environmental" concepts of education.

An early apprenticeship in mechanical engineering combined with studies in cultural anthropology and information theory shaped Isaacs's early interest in architecture and design. He developed his Matrix Research Project while a graduate student at Cranbrook Academy of Art in the early 1950s, where he also created his first Living Structure (1954) and later taught his Matrix Study Course. Isaacs also held academic positions at the Rhode Island School of Design and the Institute of Design, Illinois Institute of Technology, Chicago, where the original Knowledge Box was constructed. He is professor emeritus at the University of Illinois at Chicago, School of Architecture, where he taught architectural design and served for many years as director of graduate studies.



Hippie Modernism: The Struggle for Utopia

On view October 24, 2015–February 28, 2016



Inside Ken Isaacs's *The Knowledge Box* (1962/2009). Photo: Greg Beckel

Isaacs's work has achieved international acclaim and received considerable attention in both the popular press and within the media channels of the architecture and design communities. A prolific, prosaic, and opinionated writer, he is the author of several articles and two books: *Culture Breakers, Alternatives and Other Numbers* (1970), on his own design research, and *How to Build Your Own Living Structures* (1974), a DIY manual that details step-by-step instructions for building and adapting his constructions. He also served as a contributing editor for *Popular Science* from 1968 to 1972.

The following interview is a composite dialogue, a textual collage that combines passages from a conversation between Isaacs and myself that took place on September 9, 2014, in Granger, Indiana, and excerpts from the author's own writings and other interviews. Revealed is an architect with a deep connection to the land of his Midwestern roots, and whose unwavering commitment to an experiential model of architecture, at once generative and generous, created a vernacular idiom of modernism that remains profoundly influential.

Susan Snodgrass: I'd like to begin with a quote from an article you wrote in 1967 for the publication *Dot Zero*: "The alpha chamber was a total environment or matrix designed to function as a culture-breaker."

I see this statement, which is actually the first line of the article, as a manifesto of

sorts, as the terms “alpha chamber,” “matrix,” and “culture-breaker” have come to define your practice. Can you unpack this statement?

Ken Isaacs: I like beginning like that. It really has a kind of beauty ... [However,] my own descriptions of my work are very elusive and difficult.

I decided, in the late 1940s, to commit my energies to the development of alternatives. Not panaceas but new prototypical systems in architecture, living equipment, fabricating means and communications. The “buildings” and “furniture” of the old culture displayed a truly dazzling array of insufficiencies but the most arresting one was the fact that their value was predicated on their visible allegiance to value-saturated historical models.¹

Snodgrass: So these new systems, whether architectural or informational, rejected (or “broke”) the middle-class cultural values that defined the American postwar period, with its emphasis on individualism, capitalist expansion, and material consumption.

Isaacs: Yes. The changes indicated that the mythic significance of the status symbol might eventually give way to the conception of the object as a useful tool with which to achieve a personal experiential result.²

Snodgrass: I see the “matrix”—the concept of which you developed while a graduate student at the Cranbrook Academy of Art in the early 1950s—as both an architectural principle and a philosophical one, somewhat akin to Buckminster Fuller’s Dymaxion Principle.

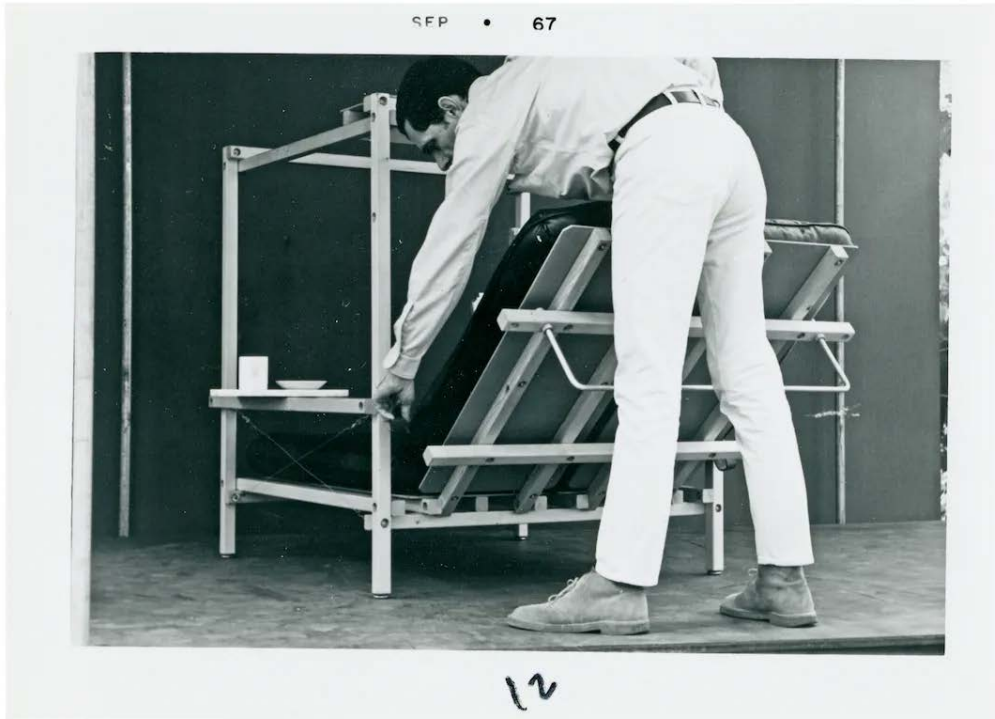
Isaacs: I chose this term ... because I strive in each case toward construction of a total environment—or matrix—that integrates all functions of the unit at hand.³

Snodgrass: How did you translate this concept of the matrix into your work? Your Living Structures, for example, are unitary, multifunctional living environments based on a network of grids that are easily assembled and embrace simplicity of form.

Isaacs: You struck a friendly chord when you mentioned “simplicity,” because most people never penetrated my own desire for simplicity, which is absolutely monumental in my work.

Easy to move and ship, Living Structures are ... simple and inexpensive to

produce.... The configuration was so simple and the principles so susceptible to variation that no great barriers existed to the fabrication of the units by the user.⁴



Ken Isaacs demonstrates the reclining function of *Superchair*, 1967

What this means in terms of today's crowded living is that you get more use from every cubic inch of space. A relatively large unit—such as *Superchair*—eats up less space in a small room than many smaller pieces scattered in a disorganized way. Since *Living Structures* combine the functions of a number of less-efficient pieces, you need fewer of them—eliminating clutter and simplifying housework. The openness of the space frame encourages healthier air circulation and increases heating and cooling efficiency.⁵

Snodgrass: The Knowledge Box—an alpha chamber or total-immersion learning environment originally created in 1962 with your students while a visiting lecturer at Chicago's Institute of Design at the Illinois Institute of Technology—is also built on your matrix principle. A twelve-foot-square Masonite cube, it deconstructed or challenged traditional ways of learning and remodeled information in new ways by immersing the viewer in a continuous stream of projected images, data, sound, and light.

Isaacs: Our aim here, partly, was to create a totally new, totally strange, even seemingly hostile environment. ... Here, all alone, a student is placed in an environment completely outside of his normal experience range and is exposed to rapidly presented information in an intense and exciting atmosphere.⁶

These new environments are fabricated of information, and structured so that the student becomes the agent of synthesis rather than the hitchhiker the lecture system made of him. The amount of information input is increased many times beyond the capability of previous systems, and is made available in terms [that] allow the intellectual leverage which grows from opportunities for juxtaposition. It is by comparing that we learn.⁷

Snodgrass: When you discuss important influences on your work, you often talk about your childhood experiences growing up in the Midwest—your father working as a tenant farmer, your apprenticeship at a factory that produced earth-moving machinery.

Isaacs: My father is the one who had the idea of making life simple. I doubt I would ever have had that idea of simplicity, if it weren't for him.

Snodgrass: So this idea of simplicity comes from a very personal place.

Isaacs: Yes. I was about four or five when we lived in Kansas City. My father built this gigantic bird enclosure; it was about sixty feet long and twenty feet wide. He brought the idea of simplicity to it, which was so interesting to me.



Ken and Barbara Isaacs, *Micro Dorm*, c. 1967. Photo courtesy the artist

Snodgrass: In connection to your father and your family roots, let's talk about the Groveland project. In 1962, you were awarded a fellowship from the Graham Foundation of Advanced Research in Chicago to build a series of Microhouses, which you realized in Groveland, Illinois, an expanse of family property where you worked for more than a decade. Returning to Groveland was a kind of return to simplicity, a retreat from the social upheaval that defined the 1960s and '70s. Yet, at the same time, you were constructing new podlike structures that integrated your ongoing interests in communalism and environmentalism.

Isaacs: That's true. I thought how lovely it would be to go to Groveland and make work, which I saw as a continuation of earlier work, because I thought one's work should be continuous in some way.

With the elimination of furniture and the integration of living equipment, it was possible to design living shelters [Microhouses] using surprisingly small cubages. ... The small house, in the old culture a pathetic replica of the palace, could now offer the new satisfactions of high performance and appropriateness to the emergence of a shift in values.⁸

The application of the Living Structure principles and the matrix idea to the problem of “furniture” makes Microhouses possible. Put traditional, separate pieces of furniture in a tiny shelter and you have a shack, uncleanable, crowded and impossible to live in. The old ideas of furniture have always interfered with the development of truly compact, ecologically correct homes.⁹

Snodgrass: Here, you lived and worked with a community of people—friends, former students, artists, and other architects.

Isaacs: Yes, people came from all over the world to look at what we were doing and to discuss. It was a very fruitful period. I didn’t go down there to retire. I wasn’t giving up at all. It was a time of real reflection and looking things over. Groveland was a wonderful period for me. It was like being a child again. We produced an enormous amount of work and it was very accessible. I could never have created work like that in New York. It was a dream.



Ken Isaacs's *Superchair* (1967), with a page from R. Buckminster Fuller's *I Seem to Be a Verb* (1970), designed by Quentin Fiore and Jerome Agel, in the background. Photo: Greg Beckel

Snodgrass: Did you perceive it as a utopian dream?

Isaacs: No, because I think in very simple terms; to think in a utopian mode would be an enormous theoretical jump.

Snodgrass: The works selected for this exhibition, which include *The Knowledge Box* and the *Superchair*, were created during the early 1960s and '70s, and thus, coincide with this larger topic of the hippie movement and utopic thinking suggested by the title of the show.

Isaacs: Yes and, boy, there is something in that decade. I always had a good feeling about it—the hippie thing—and it was very undifficult (sic.) to do things that way. People were really looking the other way and I liked that. I liked not being observed.

Snodgrass: In terms of what the countercultural movement of that time period embraced, there was a tapping into other realms of consciousness and a kind of return to childhood, rejecting what the adult world represented and the value system it prescribed

Isaacs: You're right. Becoming a child was a wonderful part of it. It's just very difficult to put people inside a frame. But what does "returning to childhood" mean? One is some kind of idiot? Or an overeducated idiot? I'm not sure what that entails.

Snodgrass: Your book *How to Build Your Own Living Structures*, published in 1974, was an outgrowth of the time you spent at Groveland. It is also a bit of a cult classic.

Isaacs: Is it?

Snodgrass: There are whole new generations of artists and architects interested in nomadic architecture, DIY practices, and sustainability who are looking at that book and at your work, in general. Do you see any parallels in today's global/digital/post-9/11 world and the world of modernism that you were part of building and shaping? Do you think that there are some cultural parallels that are making those connections? Or, do you think this interest is coming from a different place?

Isaacs: There are cultural parallels, but I don't think there should be. I don't want to do things that are hard, but I don't want to do things that are easy. I want to do things that are just interesting. I'm delighted that young people are interested. But I wonder if their interest is pure or if their interest is so determined by the conditions of their upbringing.

Snodgrass: During your time at Groveland, you were *Popular Science*.

Isaacs: Yes, writing gave me a good feeling, too, because I was dealing with a national periodical of some influence.

I later became a contributing editor to *Popular Science*. And they published a lot of my stuff. But those magazines were about building. And there is something about making ... all people over emphasize their various obsessions but ... building something changes the individual who does it. Or making something. That's what's really good about it. Perhaps better than the actual product. And it's very important to experience that change.¹⁰

Snodgrass: Your work has always enjoyed a lot of popularity with the mainstream American public. Do you think they embraced it because you were writing for a popular magazine, or because the mainstream press, including *Life* magazine, featured your Living Structures and The Knowledge Box?

Isaacs: Media played a big part [in the reception of my work] because it was terribly powerful.

Snodgrass: At the same time that your work garnered a lot of attention in the popular press, you also used the media in your work, taking images from *Life* and *Look* magazines to create photo walls or what you termed "pholages" for your Living Structures and later the Mediator (1970). Or in the case of The Knowledge Box and its precursor the Matrix Drum, recasting images from photojournalism into slides projected within an alpha chamber.

Isaacs: During and after the war this growth encouraged a proliferation in photography and photographers. The geographic displacements of the war had already united far places and near ones into a closed system. These two factors resulted in a virtual world inventory by photography. *Life* magazine was a leader in this process and I did many small experimental "translations" using the principle of informational contrasts between ... photographs.¹¹

Snodgrass: You once said in relation to *The Knowledge Box* that you wanted to activate static images. Were you also looking at experimental film? Alastair Gordon, who has written about your work, makes connections between *The Knowledge Box* and the work of filmmakers such as Stan Vanderbeek.

Isaacs: Oh, yes, I was very serious about film. I couldn't make much film because I didn't have a lot of money. However, I thought Stan Vanderbeek was kind of tiresome. I had limited appreciation for his work because it wasn't Calvinistic enough for me.



Ken Isaacs, 8' Microhouse installed on-site with assembled tetrahedron legs, c. 1972. Photo courtesy the artist

Snodgrass: In an interview you did with Staffan Schmidt, as part of his video project *Modernity Retired* (2009), you talked about the “dream of modernism.” So much of the early modernist project, whether in art, architecture or design, centered on this notion of technological progress and artistic experimentation that would change society. Did you see yourself as part of the “utopian dream” that defined modernism or, going back to your idea of simplicity, were you more pragmatic?

Isaacs: It was always a part of my thought, but how you put it all together is really quite different.

After World War II, everything opened up. People were ready for new opportunities, new dreams. Modernism was a part of that. The forms and structures of modernism were the perfect matrix to insert myself into.¹²

Snodgrass: Going back to our earlier discussion about current interest in your work. I don't think it is nostalgic in any way, but given the seriousness of the economic and environmental issues we are currently faced with, perhaps people are looking at your work in search of some kind of core values, whether simplicity or community, that can be repurposed today.

Isaacs: I'm not sure. I don't know what happens to those core values now, but I am no longer a sentinel of them.

Although we must continue to muster manpower and financing for expansion to other worlds, a fundamental question remains. At some point, man must order his relationship to the physical environment toward harmonious coexistence rather than the short-term, mindless piracy of the planet that has marked his history to this point.¹³

Snodgrass: How do you see your work in relation to other modernist architects, early figures such as Moholy-Nagy, Mies van der Rohe, Fuller, whom I mentioned earlier. They were fundamental to the Illinois Institute of Technology (originally the Institute of Design), part of the New Bauhaus in Chicago, where you taught. Did you see yourself as a part of the larger modernist project?

Isaacs: Yes. I had a feeling of generality about life. But a lot of modernism was sad because people would do things and they would ... make it too complicated. I didn't want to do that.

I suspected that the visual evaluation criterion was a built-in cultural defense mechanism to preserve the status quo. This cultural misdirection is so strong that I was certain it would not be possible for even the architectural giants of the early 20th century to beat the rap. Despite the devotion and coverage they showed, their work tended to result in a visual cleaning-up of existing artifacts. This kind of superficiality can never hope to cope with the conflicts and contradictions of the society. We needed new views in depth on way of life questions and artifacts which were responsive to objective challenges in the environment.¹⁴

Snodgrass: How did modernism become complicated? Did it lose its way? While many might equate the movement with Mies's dictum, "Less is more," did more, in the end, become more?

Isaacs: Yes. It never bothered me that these other people were operating. I think it was great that they were. I'm trying to find an answer to the question that you asked earlier: Is the whole world going this way? And, is it getting to me? I'm not sure.

Notes

¹ Ken Isaacs, "Alpha Chambers," *Dot Zero 4* (Summer 1967): 39.

² Ibid.

³ "Meet the Designer ... and the Matrix Idea," *Popular Science*, March 1963, 161.

⁴ *Dot Zero 4*, 39.

⁵ Ken Isaacs, "Build the Superchair," *Popular Science*, March 1963, 164.

⁶ Ken Isaacs as quoted in Clay Gowan, "The Incredible Knowledge Box," *Chicago Daily Tribune*, July 29, 1962, C8.

⁷ Ken Isaacs, narration soundtrack of the film *The Knowledge Box* by Barbara Isaacs, 1962.

⁸ Isaacs, "Alpha Chambers," *Dot Zero 4*, 39.

⁹ Ken Isaacs, *How to Build Your Own Living Structures* (New York: Harmony Books, Crown Publishing, 1974), 120.

¹⁰ Ken Isaacs, interview by artist Staffan Schmidt, part of the video series *Modernity Retired* (2009).

¹¹ Isaacs, "Alpha Chambers," *Dot Zero 4*, 41.

¹² Isaacs, *Modernity Retired*.

¹³ "Meet the Designer ..." *Popular Science*, 161.

¹⁴ Isaacs, "Alpha Chambers," *Dot Zero 4*, 39.

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