

2 *introduction: the aesthetics of sustainability and the solar house* cornelia escher & lars fischer

Originalveröffentlichung in: Escher, Cornelia; Fischer, Lars:
Introduction: The Aesthetics of Sustainability and the Solar House. In:
Escher, Cornelia; Common Room (Hrsgg.): Negotiating Ungers: The
Aesthetics of Sustainability. The Solar House. Brüssel 2020, S. 13-40.

Online-Veröffentlichung auf ART-Dok (2021),
DOI <https://doi.org/10.11588/artdok.00007512>

in 1980, the german architect oswald mathias ungers participated in a COMPETITION for SOLAR HOUSING in the community of landstuhl, germany.¹ though ungers' contribution received a special prize and was critically acclaimed, his design never materialized and has since fallen into oblivion. among the great number of ungers' realized and unrealized designs, it remained the only project in which the architect explicitly addressed the question of sustainability.²

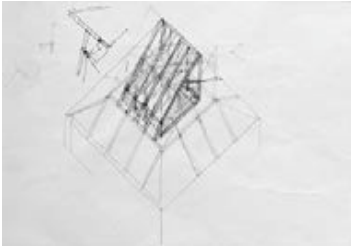
when we were planning the summer school at the ungers archiv

1 manfred sack,
"solar-architektur. die
zukunft liegt im
vergessen," *die zeit*,
april 4, 1980, 15.

für architekturwissenschaft (uaa) in cologne in 2018 as a first part of our research and teaching project “negotiating ungers,” we found the peripheral status of the project particularly promising. it was clear to us that the project was far from central in ungers’ work and it seemed equally marginal with regard to aesthetic positions in the field of sustainable architecture. on the one hand, it would allow us an unconventional approach to ungers’ design practice. on the other hand, we were curious to see what the position of an “outsider” could contri-

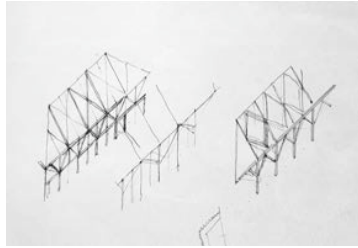
2 for a more detailed account of ungers’ previous encounters with the field and an evaluation of the

project in the context of ecological architecture see kim förster’s essay in book 2 of this publication.

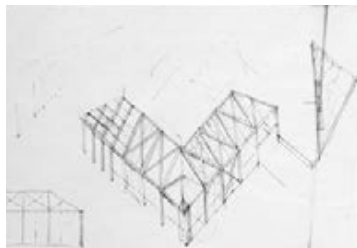


all images p. 16–37:
oswald mathias ungers,
solar house, first
sketches, 1980.
image credit: ungers
archiv für architektur-
wissenschaft, cologne.

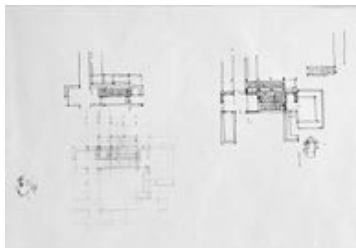
(above) axonometric
sketch of roof of
single-family house with
guest apartment.



variations of greenhouse
structure.



corner detail of
greenhouse structure.



vertical circulation options
in single-family house.

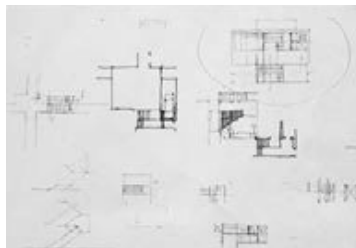
bute to the debate on sustainability.

the competition in landstuhl was organized in the context of the virulent debate about environmental architecture in the 1980s, which followed the energy crisis of the 1970s. it called for innovative solutions to solar housing that could be implemented on a larger scale. the housing project was to serve as a MODEL PROJECT for solar settlements throughout germany. the relative prominence of the project on the political agenda and the prospect of being involved in a large scale project with increasing importance for the future might have incited ungers to throw his hat into the ring and to submit a proposal upon the

invitation to participate. yet in the end, the competition proved less successful than had been hoped for and only very few projects were executed due to high investment costs.³

for ungers, the design for solar housing meant he was faced with a new field. to satisfy the technical side of the project, he collaborated with the berlin-based institut für bau-, umwelt- und solartechnik (institute for building, environmental and solar technology) which developed the energy concept of the building. yet, he was far from leaving

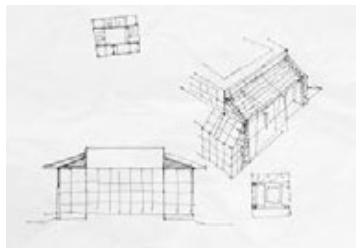
3 vladimir nikolic,
architektur und energie
(stuttgart: fraunhofer
irb verlag, 1985/88).



stair configurations in
single-family house.



volumetric study of
single-family house.



buffer zone studies.



elevation study of single-family house design.

ENVIRONMENTAL QUESTIONS to technical experts, but approached the assignment with a particular position. in his opinion, the energy efficiency of the design should not depend on construction and building technology, but should be understood as an ARCHITECTURAL PROBLEM, an integral part of the design.⁴

when the competition asked for a typology, it was maybe more in the sense of developing a model project and a range of solutions adapted to different requirements. yet, ungers engaged in a search

4 oswald mathias ungers in *in dubio pro vita. energiebewusste architektur. aufzeichnungen eines expertengesprächs*

der bundesarchitektenkammer am 18. juni 1980 mit statements der architekten, ed. bundesarchitektenkammer (bonn: ministerium für

raumordnung, bauwesen und städtebau, 1980), 83. see english translation in this volume.

for historical examples of climate management, but also in an overall, convincing architectural concept, which would answer his desire to create architecture with a capital a, an architecture that would have an enduring impact.⁵ especially one of the designs—the single-family house—answered his quest for a FORMAL SOLUTION which was both simple and radical. it is this house which ungers named “the solar house” and selected for the presentation in the exhibition “houses for sale” in 1980 at the leo castelli gallery in new york. the

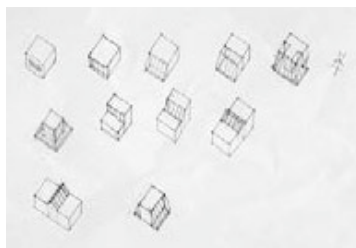
5 oswald mathias ungers et al., *5 energie-häuser. entwürfe für eine klimagerechte und energiesparende*

architektur (cologne: studio-verlag für architektur, 1980).

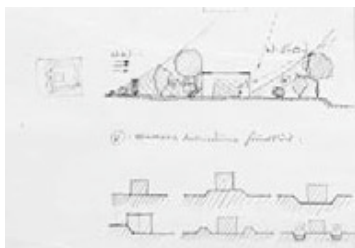
house was presented by means of drawings colored by ungers' daughter sybille.

the basic footprint of the SOLAR HOUSE is a compact square. it consists of concentric zones, each one defined by a different materiality. the core is a stone construction acting as heat storage. the second layer is a glasshouse functioning as a buffer zone. a wooden framework surrounds the glasshouse and serves as a supporting structure for the final layer of greenery, which covers the building, providing shade in the summer. the building volume is simple: it combines a rectangular base with a gabled roof. from the exterior, the house seems to be mounted on a paved plinth and to

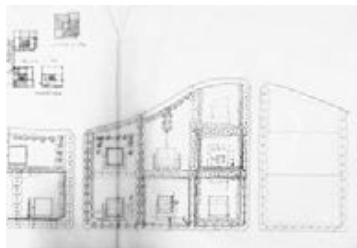
its sides, brick paving continues to form a terrace on its western side. the house sits somewhat eccentrically on a square plot, fenced in by a brick wall with a hedge and a sequence of trees on top. a path leading towards the house entrance cuts the garden in front of the house into two halves; a tree is placed in its middle and forces the pedestrian on a semicircular detour. only the tree and the vegetation on the house's frame are allowed to show some irregularity, without disturbing or questioning the overall rigid harmony. the design appears secluded and self-sufficient, somewhat monolithic in character—aspects which underline that this house is designed as a MANIFESTO.



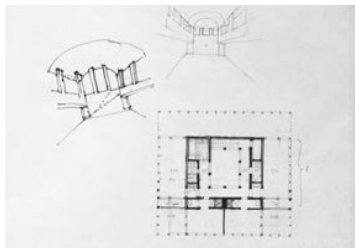
volumetric study of single-family house.



wind and sun diagrams.



site plan study for single-family housing.



spatial study of stone house volume.

with its GEOMETRIC formal language, ungers' design differs both from the typical eco-design of alternative milieus and from more technologically oriented design methods. if these observations follow what ungers intended to demonstrate with this design, they also have certain limits, as they would probably lead us to a comparison of styles instead of engaging with the full meaning of the term AESTHETICS. we use the term aesthetics in order to describe the ways specific modes of perception are articulated through works of art or architecture, what is perceived through the human senses in a particular historical period or society.⁶ this approach includes more than

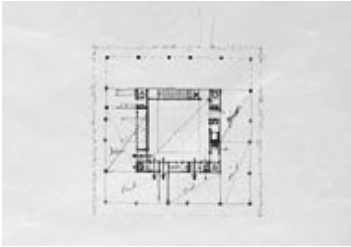
visual features displayed on the outside of the building, connecting with the domain of experiences and bodily practices. following the anthropologist tim ingold, one could even claim that the TACTILE aspects are particularly crucial in order to redefine our relationship with the environment in the sense of seeing ourselves as a part of it rather than in opposition. design could then be described as “the active and sensuous engagement of practitioner and material.”⁷

in a text on aesthetics and ecology published in 1990, the sociologist

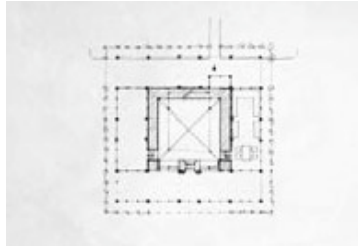
6 for this understanding of aesthetics see susanne hauser, christa kamleithner and roland meyer, “as wissen der architektur,” in *architekturwissen. grundlagentexte aus*

den kulturwissenschaften vol 1: zur ästhetik des sozialen raumes, ed. susanne hauser et al (bielefeld: transcript, 2011), 17.

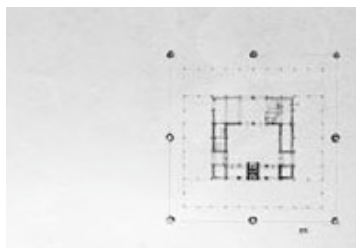
7 tim ingold, “making culture and weaving the world,” in *matter, materiality and modern culture*, ed. paul graves-brown (london, new york: routledge, 2000), 50–71.



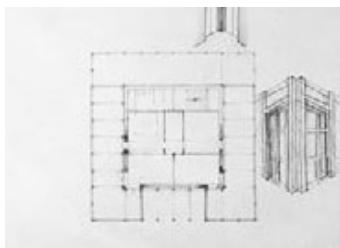
programmatic
organization of single-
family house.



circulation diagram of
single-family house.



study of spatial layout of single-family house.



spatial study of interior corner detail.

lucius burkhardt suggested the conceptual outlines for an aesthetics of sustainability. he claimed that landscape architecture can help us to interpret and read the contemporary relationship between what is nature and what is the city. according to burckhardt, “[t]he french garden was a well-staged exhibition of the contrast between the town (or the palace) and the surrounding forest.”⁸ if we follow burckhardt, ecologically oriented architecture should not imitate nature—as nature as a pure and untouched place is a projection. instead, it has a didactic responsibility towards its users of

8 lucius burkhardt, “aesthetics and ecology (1990),” in *lucius burckhardt writings: rethinking man-made environments*;

politics, landscape & design, ed. jesko fezer, martin schmitz (wien: springer, 2012) 222.

illustrating the contemporary relationship between architecture and environment, or imagining what it could ideally be. by analogy, we could say that a solar house—understood as a work of architecture—should set an example of how a sustainable building connects culture and nature. coming back to our definition of aesthetics, we should also ask how this concept is translated into INTELLECTUAL and SENSUAL EXPERIENCE.

at first sight, the solar house, with its greenery and its garden, seems subject to a rigid geometric structuring, nature is subjected to human design activity. certainly, it does not illustrate a co-creation involving both humans and materials in a

two-way process, as it is sketched out by tim ingold. yet, when looking closer at the series of drawings made to illustrate the design, we cannot deny the continuous presence of CHANGE. the flying curtains in the competition drawings point to the movement of the wind, and in the colored images of the house in winter and summertime, the cloudy sky and the specific tonality illustrate the shifting ambiances.

the concept of change is in fact a core element of ungers' design itself. the solar house consists of different climate zones and EXPANDS or RETRACTS depending on exterior conditions. in the winter, living is confined to the building's core—the stone house—while in the

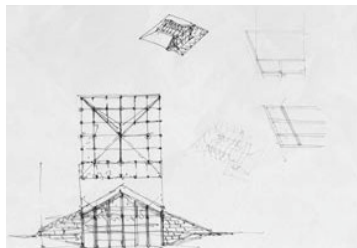
summer living extends into the spaces of the glass house. the house's inhabitants would indeed perceive that they live with a changing house, notably changing temperatures, according to the WEATHER, the SEASON, shifts in the greenery and the USE they made of the curtains. in accordance to what burckhardt suggests, this change is also STAGED on the outside of the building, as it appears in the colored drawings. in the summer, the house looks open and lively. in the winter, the green house is void of greenery and displays its supporting wood frame like a skeleton; the garden is void of life. all the building's energy seems to retreat to the core.



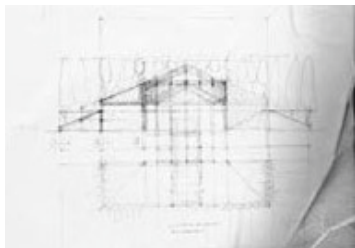
elevation sketch of single-family house design.



elevation variation of single-family house.



sketch study of earth-mound house.



sectional study of earth-mound house.

due to its reclusive character, the solar house speaks less to the community of the landstuhl-extension than to its own inhabitants. similar to the houses ungers designed for his family in cologne—the haus ungers (1959) and even more so the house without qualities (1994/95)—it keeps an ideal of PRIVACY rather than opening up the space towards the neighbors. this does not indicate that its message was limited to the private domain. rather, it should be considered as a STATEMENT, presented to the eyes of the competition jury as well as to architects, professionals and scientists of the time. as such, the house aims to establish an architectural discussion of the aesthetics of

sustainability—and thus displaces this issue from the surface to the heart of the profession, from the technological application to the most essential practice of design itself. the house poses a challenge to the profession, which is even more urgent today, to be taken up by the current generation of architects. ungers' design not only claims environmental responsibility of architects, but asks to think it in terms of its architectural qualities. ultimately—and maybe against ungers' own intentions—the proposal for landstuhl can be read as a call to the creativity of architects to mediate social change through the aesthetics of buildings. an aesthetics of sustainability would thus—on a sensual

and conceptual level—transmit and help to creatively shape an alternative idea of society, the individual, and its embeddedness within the material and natural environment.