UNStudio
möbius house
Utrecht, Netherlands
52°18'00.72" N 5°11'50.12" E

Ben van Berkel + Caroline Bos

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Michael McGie
EVDA 621 _Formal Strategies
The Möbius house is based upon the concept of the Möbius strip, a loop of material with a half twist resulting in a surface with only one continuous side. As such, the Möbius house is conceptualised on the notion of a continuous and fluid circulation between social space, private space, and paths of movement which are subsequently defined by ambiguous boundary conditions. The organization of the Möbius house, by Architect Ben van Berkel and Caroline Bos of UNstudio, is an exercise in spatial ambiguity and complex interrelationships. While the modest program comprises of basic living conditions, plus two independent studios, the Mobius house attempts to relate these elements as two separate circulations which, at times, run parallel in a shared journey through the sequence of spaces. The Mobius strip concept is very much applied as a diagram to inform the way
in which this might be possible. Necessarily, the buildings spatial organization has an intimate relationship with notions of temporal space, and program is arranged on the basis of daily routine and social interactions throughout the day as opposed to pure functional requirements. Primary paths of circulation extend through the entire longitudinal axis of the building, offering open sight lines and an uninterrupted movement between spaces. In both plan and section, the building has few right angles, the resulting spaces constantly in a state of subtle expansion and compression. While dynamic in nature, movement through this house is slowed by the modulation of form, sculptural points of interest, moments of repose, and a complex wandering circulation. In this way it is more of an environment for living, than a machine for living.

Located on a secluded and densely wooded site outside of the town of Utrecht, Netherlands, the first essential relationship established in this design is between interior and exterior, natural and artificial. This is expressed in the building design through the use of transparency and extension. Contrasting with the complex organization of the interior spaces, the frontal (south facing) facade of the Möbius house, and its interior/exterior relationship, maintains the simple language of the modernist curtain wall, essentially forming a clean, transparent skin.
skin with relatively little articulation as at defines the form of the building. Viewing the building from the exterior, the reflective properties of glass register impressions of the surrounding forests, tracing texture and color onto this surface and visually dissolving the form into the landscape. An opposite effect is achieved at night, when the building’s interior is illuminated from within, and the space is visually contained and isolated in contrast to the darkness of the landscape. All of the main floor windows have a full height from floor to ceiling which extends the conceptual boundaries of the interior space beyond the extents of the building itself. Instead of displaying full panoramic fields of view however, the architects have framed certain views utilizing the sculptural mass of the building itself. The south facing curtain wall is interrupted at one point by a massive
concrete obstruction sliced by careful reveals. Elements such as this provide a rhythmic interruption to the otherwise smooth curtain wall and help to orient and define space along its length. In places such as the main floor living space and the upper level atrium, the transparency of the curtain wall extends to the ceiling in continuous bands of glass which serve to extend the field of view into the vertical axis, and further extend the inner space beyond the physicality of this outer shell to gather and engage with the environment. What is therefore established, is a direct awareness of place and natural process which may be contrasted or aligned with activities and cycles occurring inside house. The interior space is effectively activated by changes in lighting conditions and shadow, seasonal cycles, and elemental processes such as wind and rain.

The extension of space though the use of transparencies and interrelated spatial conditions, continues with the internal logic of the Möbius house, although in a more articulated and complex organization. The lightness of glass and the density of concrete are continually being juxtaposed and syncopated in alternating roles, creating a dynamic sequence of enclosure and exposure. These are closely related to ideas of building circulation, and are designed specifically to describe this aspect. For example, while ascending or descending the easternmost
interrelated spatial conditions

staircase, one arrives on an intermediate landing which penetrates into the main living space by cantilevering and hovering over the ground plane. From within this intermediate space, one is momentarily engaged visually with this living space, while simultaneously being made visible in their circulation to those occupying this space. Although separated by the materiality of glass, this transparency allows one to exist between the conditions of living and circulation, becoming both observer, and observed.

Given the open nature of the internal organization, programmed spaces within the house are defined primarily by variation in ceiling heights as opposed to conventional wall and door systems. These are able to describe sensations of openness or compression and thereby suggest the nature of occupation on
a subliminal, experiential level. Spaces defined by high ceilings encourage a dynamic engagement with the space and open social interaction. In areas where the ceilings drop into these open spaces through a subtle penetration of the glass skin, the full mass of concrete forms impose onto the space, and suggest stability, protection, and solitary reflection. Open spaces are further defined by abstracted ‘furniture’ elements projecting from, and integrated directly into, the massing of the building. These projections are dramatically cantilevered to hover over the ground plane and transform their physical mass into an apparent lightness and delicacy. Additionally, this impression of lightness contrasting with mass is to be found in the articulation of the entire structure as it rests on its site. The floor plane extends as a thin base under the south east building mass, and is deeply undercut to raise the entire form lightly off the ground. In other places the building has a more integrated relationship with the earth of the site, imbedding itself deeply within it. These two seemingly opposing tectonic details are applied as expressive countermoves to each other. Together they communicate a duality which is a constant theme throughout the design of the Mobius house. While grounded by its massive physicality, these are carefully balanced by moments of an almost ethereal weightlessness and transience.