



postfossil ecowoodbox kindergarten



This architectural enterprise is an intercultural investigation of the immediate implementation of green good design, meaning human event shaping both archi- and ecofriendly space and form.

The leaders of the western hemisphere have the sad reputation of being the dominant environmental polluters in the world, with building stock being the largest contributor.

Parallel to exploring cutting edge architectural investigations, this project is about intermediate termed actions under the constraints of public funding using applying best available knowledge and technology as an inter-generational collaboration, as the plan is to let the youngest generation immediately grow up in an adequate built environment, which equips them with an intuitive advantage and let's them become stewards.

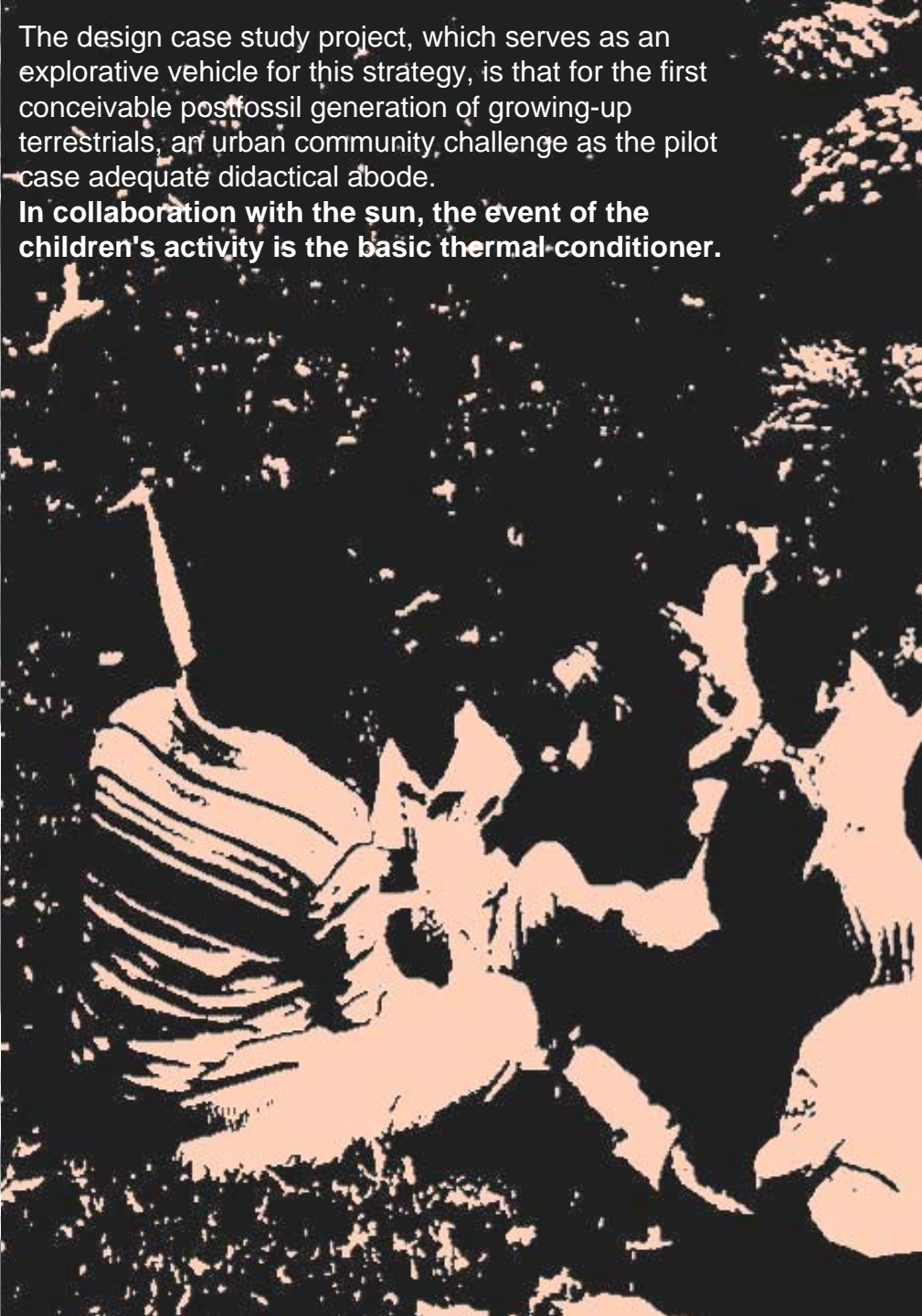


The site encompasses an iconic 1950's suburban setting, with a great balance of density and green outdoor spaces. The project is to replace a previous fossil kindergarten structure from the early 1970's, which was situated in a way that it "clogged" a recreational park corridor, which initiated the original mid-century master plan.



The design case study project, which serves as an explorative vehicle for this strategy, is that for the first conceivable postfossil generation of growing-up terrestrials, an urban community challenge as the pilot case adequate didactical abode.

In collaboration with the sun, the event of the children's activity is the basic thermal conditioner.

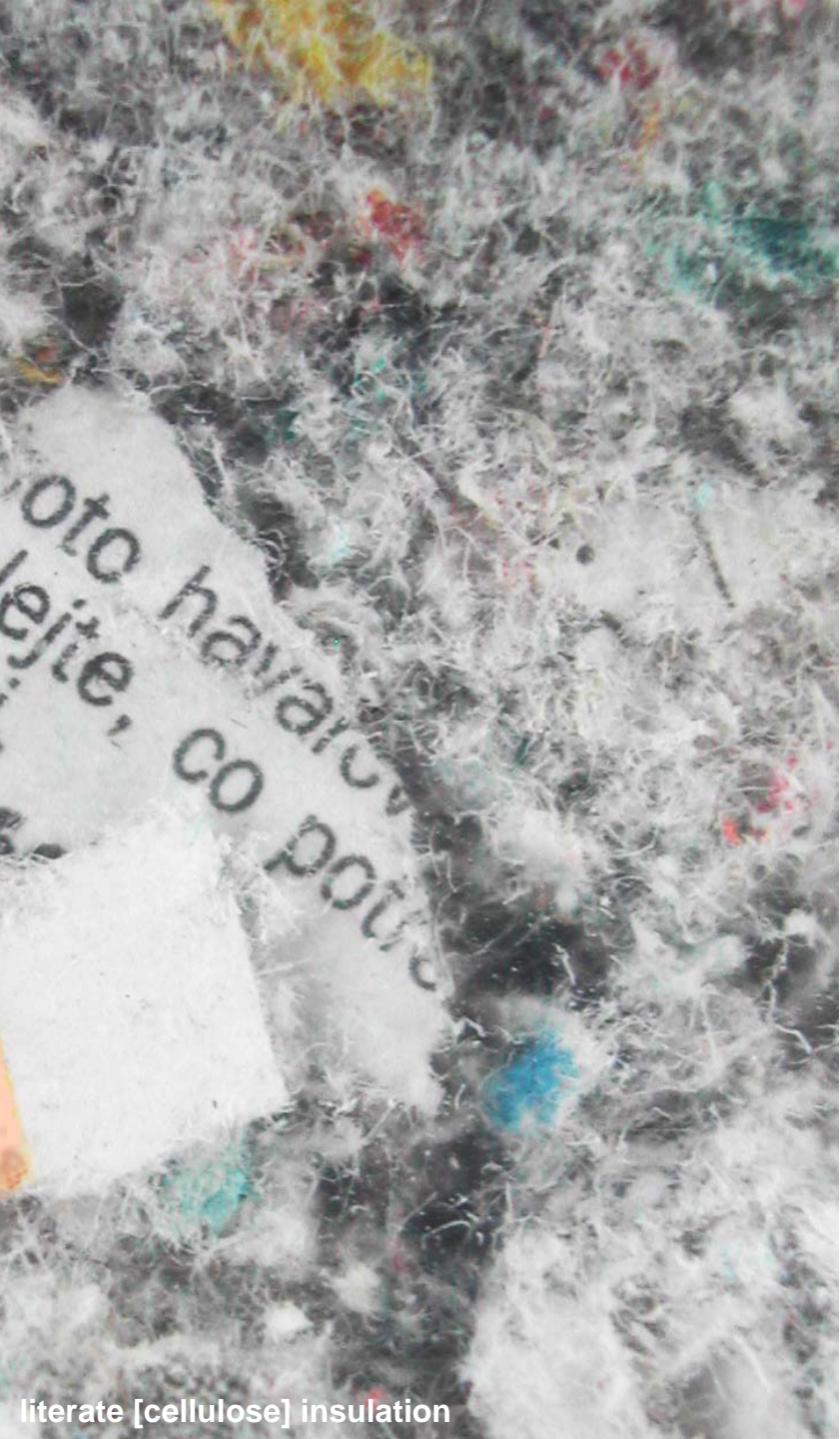




Prefab as ecological and economical optimization strategy



Gravel under slab insulating + load bearing Foam Glass Gravel [recycled glass]



literate [cellulose] insulation



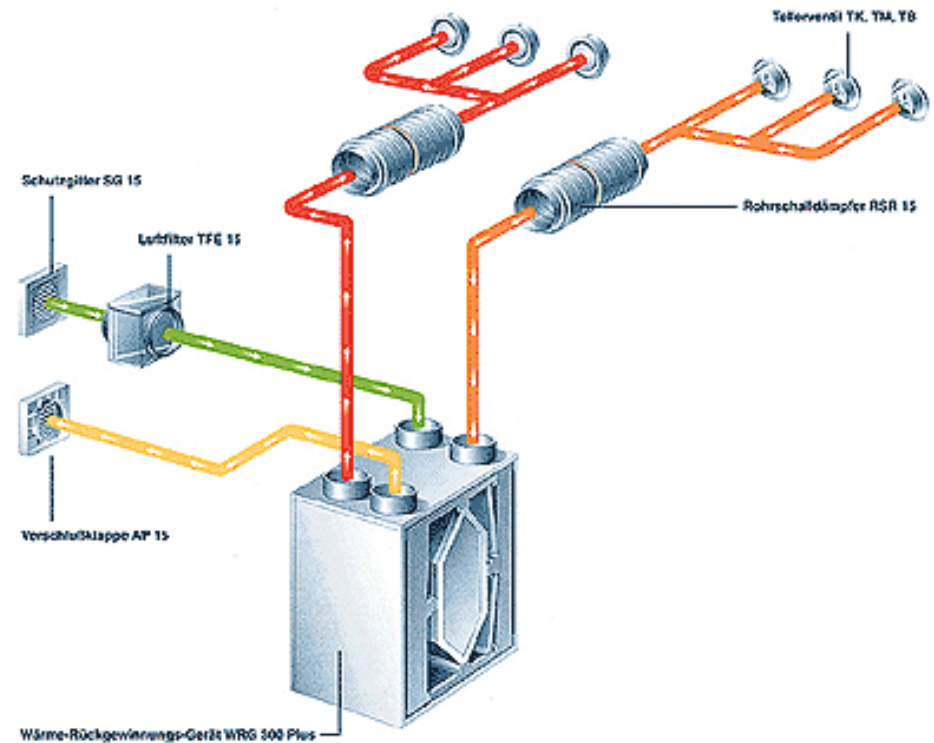
Prefab including triple glazed windows in perfection of air tightness



5 days assembly



Heat exchanger to regain 95 % of the energy that would otherwise get lost while constantly exchanging the used up air with fresh one, which helps for optimum indoor air quality and prevention from mold and spread of bacteria.



That remaining high? technology, the ductwork for distributing the in the south harvested sun to the northern areas

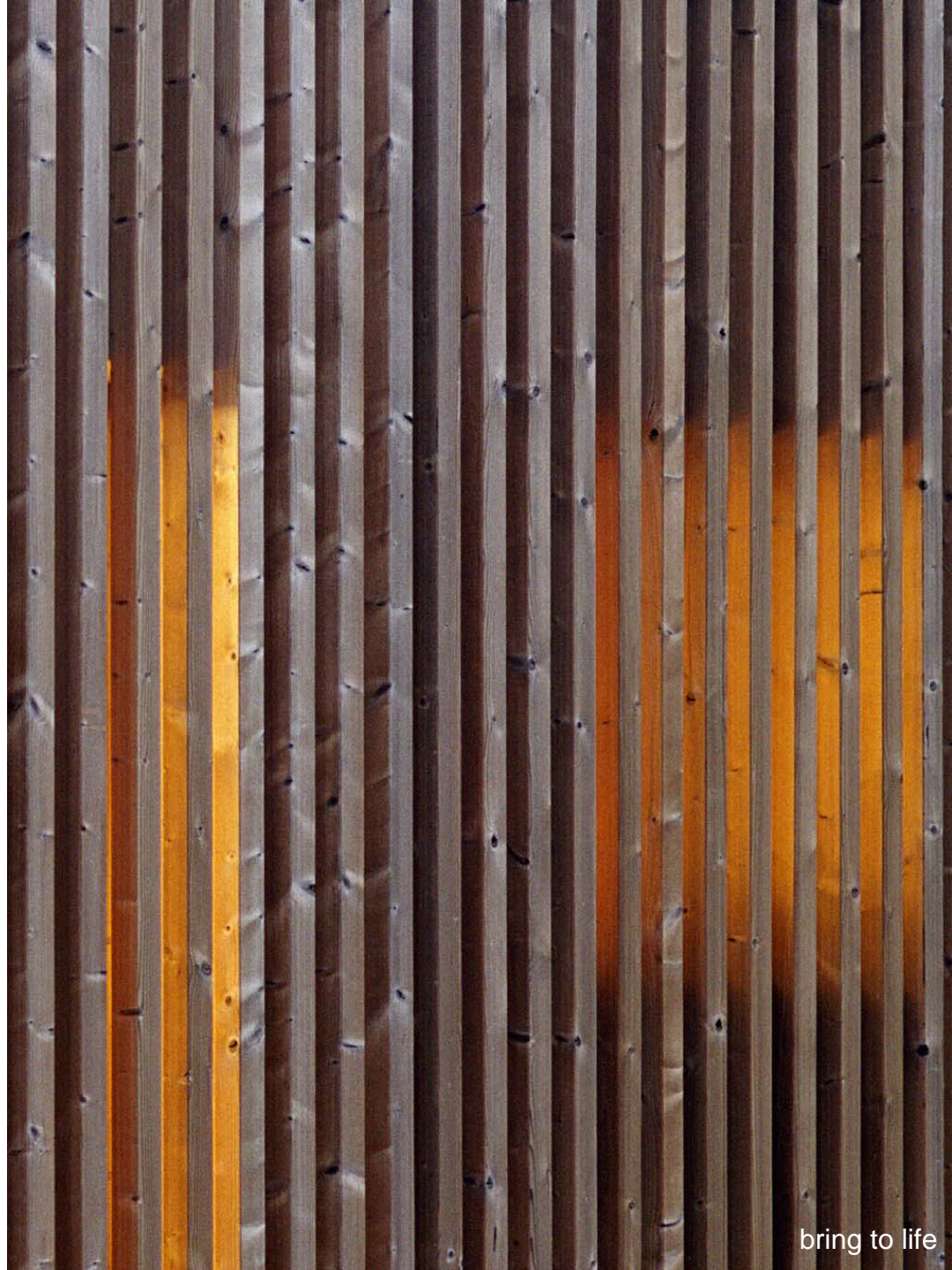
On the urban scale, replacing the previous fossil structure after almost half a century later, the goal was to bring it back to the original natural scheme and let the building, both from a site-strategy and architectural view point, become embedded in nature again. However respecting and taking advantage of the natural shading potential of the mature trees on the site, the building had to occupy almost the same foot print of the previous structure so that the park was not to be physically cleared from the building mass. The strategy was an architectural immaterialization. In observation of on and off site existing vernacular fence structures we learned, that these are much more loved and accepted as building facades...



Regarding this landscape revitalization goal, the northern front is not treated like a facade, but with the sequence of vertical wooden slats, which are thinned out over the openings, to blend into the natural tectonic pattern of the green space.



highly insulated sides are clad with a skin of Thermally Modified Timber, in form of slats on thermally modified plywood boards. (TMT having the huge compensational potential to save the rainforests)





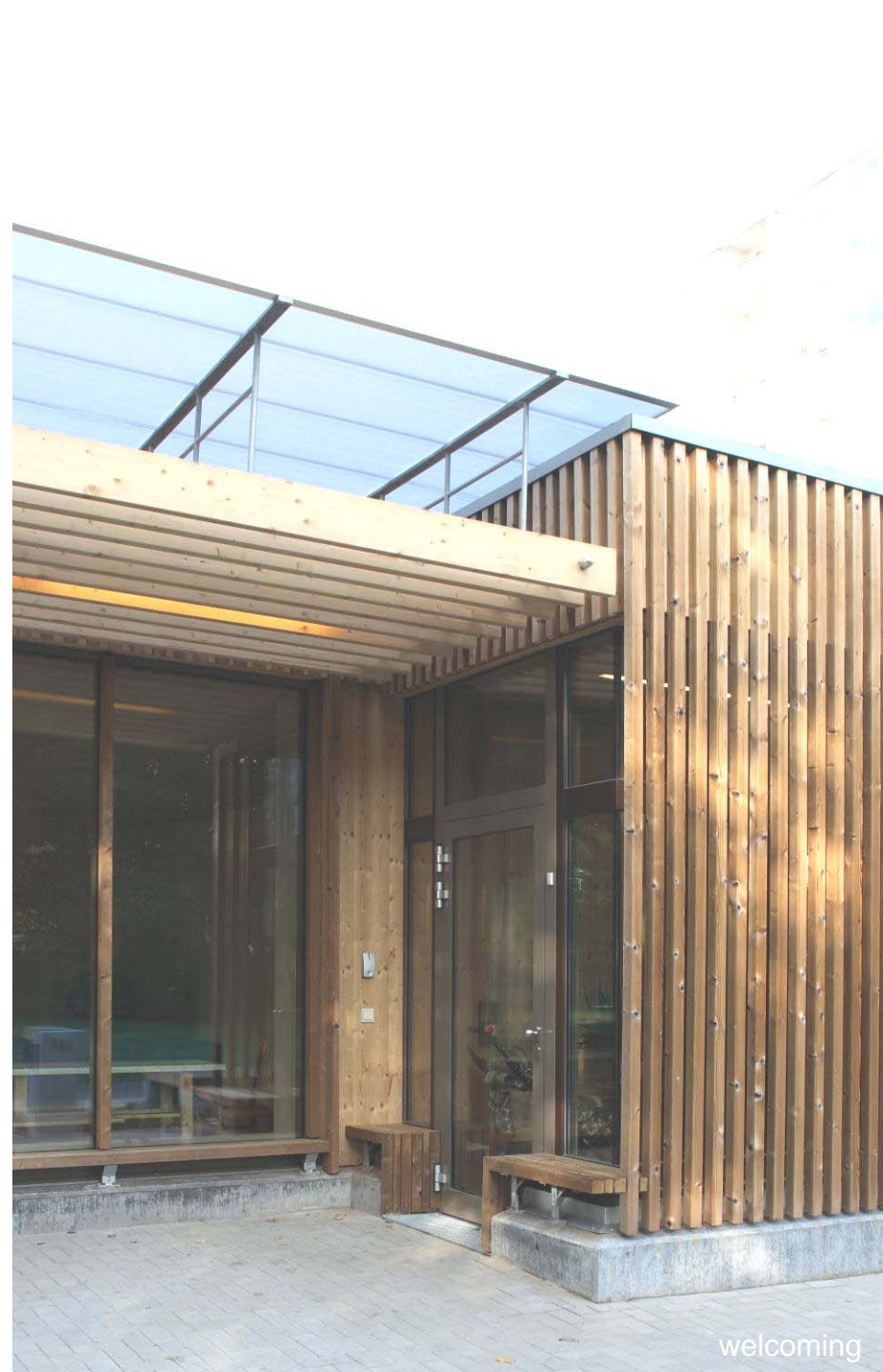
The light shining through the louvered parts during the darker seasons gives it a mystical notion and enhances the children's curiosity



inside - out

The human event and activity of the children structures the building in a clear way. This internal hierarchy responds to the thermal logic in the transition of the enclosure from completely closed off to the north, to the complete openness to the sunny south.. Going along with that, the calculated perception of the facade more as a landscape than as an architectural element, and the fact that landscape elements get less attacked, serves as a vandalism prevention, and as a result, keeps the maintenance costs low.





welcoming



In the inner play-concourse the spatial transition character is enhanced by rhythmic sky lights, which serve as a natural way-finding device to the living rooms.



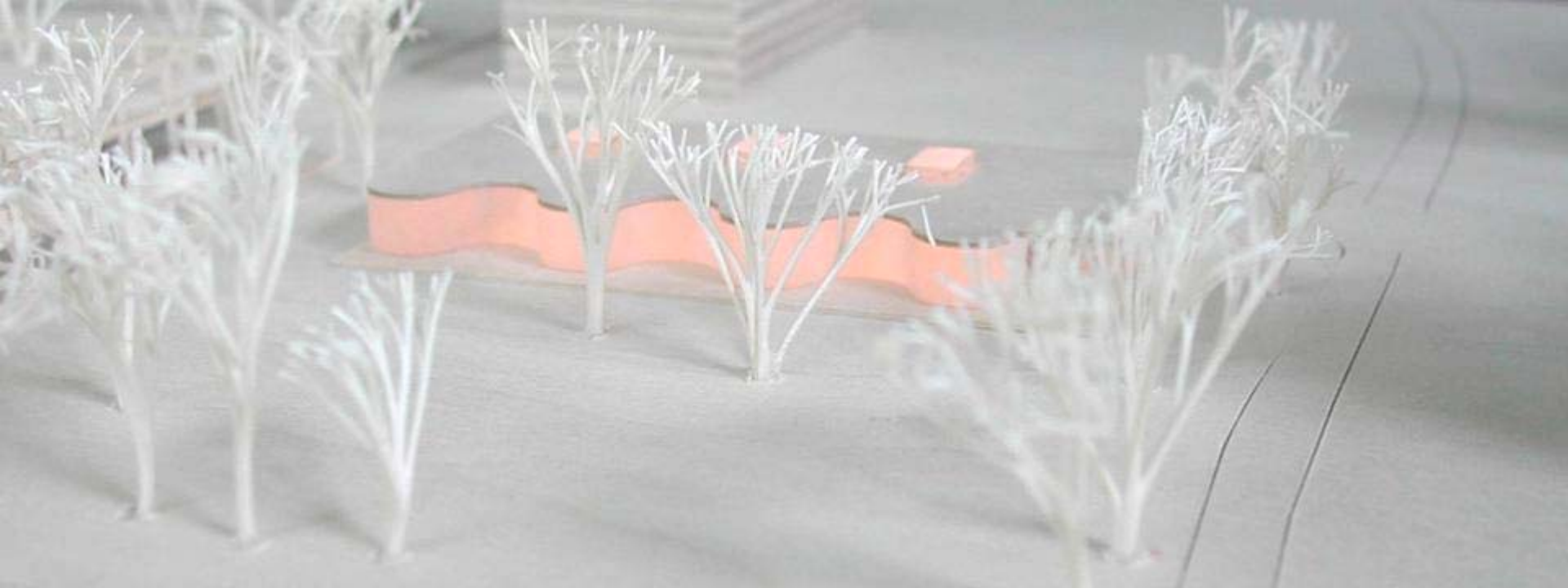
All of the serving spaces align along the north end and are connected by the linear circulation space, which is wide enough to serve as well as a play-street and leads to the living-rooms to the south.

Juxtaposing, the all glass southern enclosure embraces the sun and the light as the major thermal performance tools. The curvilinearity maximized the solar exposure and solar heat gain during the move of the sun in a cycle of a day. Spatially the concavity areas of the pounding of the glass-waves provide an intimate feel and a smooth transition from the inside to the outside





The interior is dominated by birch plywood wall claddings on authentically brown colored linoleum floors. The structural system is a light frame prefabricated wood platform system, with thermally disconnected TJI trusses. The roof is constructed of wooden beams and a dropped ceiling of wood wool acoustical tiles.



The architects use their intercultural hybridism to revitalize the stereotypical prejudice of “poor American building technology” and presumably architecturally advanced German “Ecotecture”. As European developers start to sell archi-ugly styrofoam boxes as Passive Houses, following the postfossil goal the traditional American light wood frame structure was identified as the most efficient and effective. [as acknowledged by the 2008 PHAIDON 21.st Century Atlas of World Architecture]



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School Renovation



The energetically optimized enclosure investigates the balance of both eco- and archi-friendliness and the sensual unison of space, form and nature. From the park the all glass front dematerialized the building mass, and in this way blurs the boundaries between architecture and landscape.

