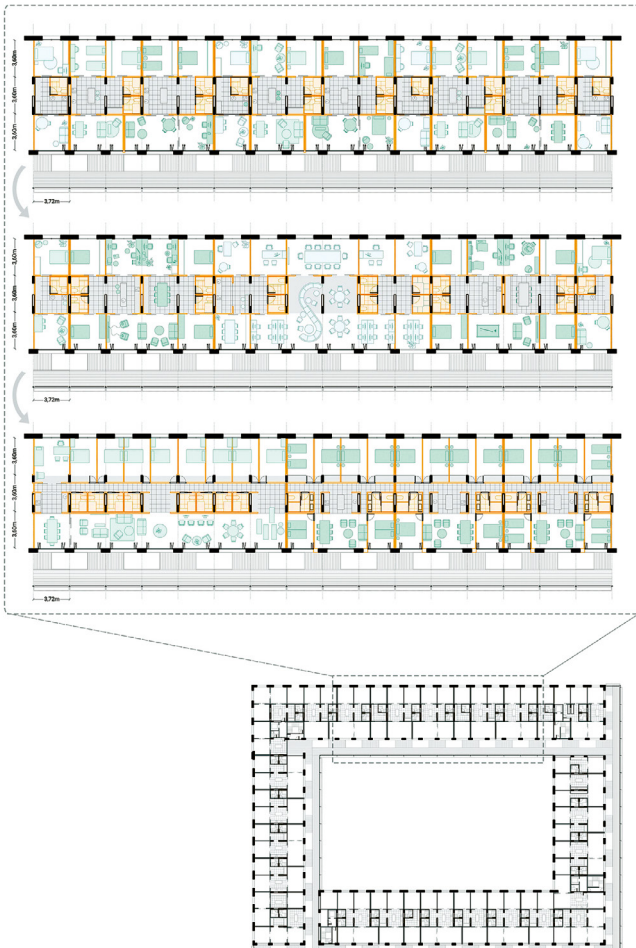


# Building Green to Inhabit a Damaged World

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## Towards an Organic Society

Architecture produces habitability. We produce, and maintain, a socially necessary habitability. But in the era of the Anthropocene, it is 'suddenly' critical to maintain the habitability of the planet in front of the 'global warming's terrifying new math!'.<sup>1</sup> The planet is becoming increasingly less capable of ensuring our survival, mainly due to our own fault: we live with nothing more than the side effects of our industrial production model. We must seek a global rethink of our social metabolism and our way of relating to the environment, at any scale. It is impossible to continue doing what we have done so far, but what is it that we must do?

During the era of the Industrial Revolution, we transitioned from an approximate population of 800 million people at its inception to over 8 billion coexisting individuals today, with the consequential issues it has generated. Architects of the 20th century had to work with a completely different society from that of their past, with their new problems, but also with its new materials: reinforced concrete, large-format glass, asphalt, etc. In addition, the emergence of climate control machines was promising but led to traditional construction techniques for seeking comfort with passive systems becoming rapidly obsolete.

The challenges of ensuring habitability during the industrial era could be seen as analogous to those of the present one, with new urgent habitability problems arising from our collective ecocide.<sup>2</sup> However, the solutions available are not that clear. We might need to chart a course toward decarbonization<sup>3</sup>, but how? What are the resources that society currently offers us? Are we starting from a *tabula rasa* or rather from a still legible palimpsest?

1 • See Bill McKibben, "Global Warming's Terrifying New Math!", *RollingStone*, July 19, 2012, <https://www.rollingstone.com/politics/politics-news/global-warmings-terrifying-new-math-188550>. Bill McKibben is a writer, environmentalist, and activist known for his work in raising awareness about climate change. In 1988, he authored 'The End of Nature,' the first book written for a general audience on the topic of global warming.

2 • According to Ashley Dawson research on modern species loss, a global ecocide is documented and evidenced by the loss of over 140,000 species annually. See Ashley Dawson, *Extinction: a Radical History* (New York: OR Books, 2016)

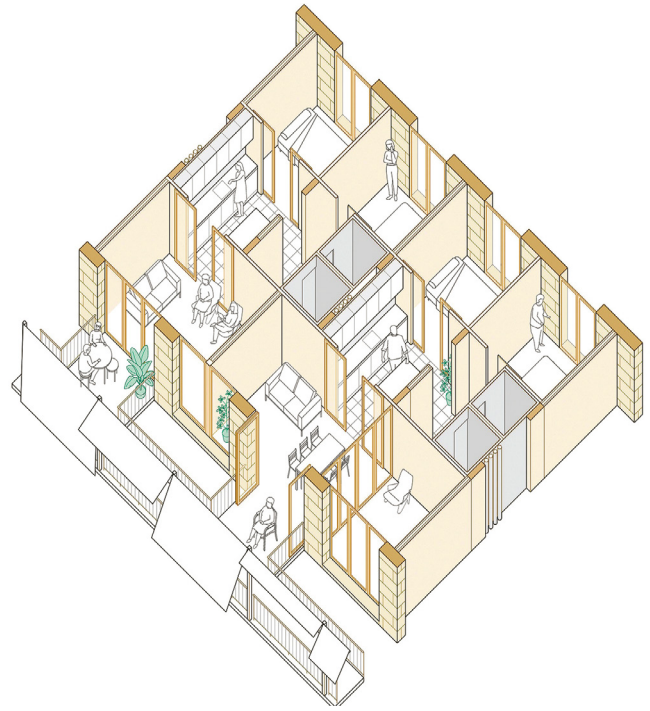
3 • See Albert Cuchí, *A Necessary Experience* (El Croquis, no. 219, IBAVI 2019 2023)

## Frugality and Compensation

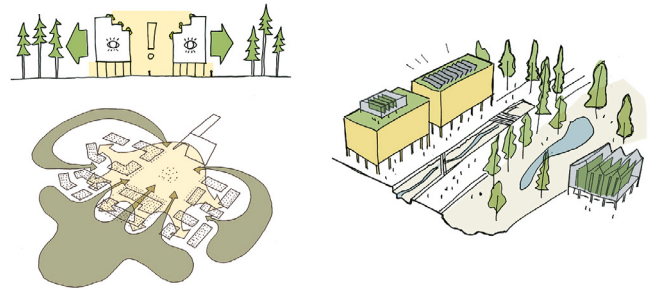
Let's analyze two projects that, despite having starting points almost opposite at most levels, aim to comprehend their proposals not only linked to climate (fundamental and inherent to architecture) but also to the local conditions of the site with two strategies: decarbonization of materials and achieving comfort without relying on commercial energy sources.

Within the remarkable work carried out in recent years by IBAVI (public housing agency of Balearic Islands government), the project awarded a special mention in Eivissa (ES), *Build, Live and Repeat*, presents us with a synthesis of much-needed moderation and ingenuity. On one hand, it conducts an evolutionary typological exploration over time (moving away from the 'classic' reproductive nuclear family) (fig. 1), while on the other hand, it proposes passive comfort acquisition systems by leveraging bioclimatic strategies offered by the environment: orientation towards suitable winds, ensuring cross-ventilation, compactness and intermediate spaces, and controlling solar radiation to harness thermal inertia. While new materials normally present higher amount of embedded energy, this project is presenting a traditional material exploration that advocates for decarbonization: rescuing *marès* as a traditional material that will provide thermal inertia, rediscovering oceanic *posidonia* as an insulating element, as well as recycling materials for previous 'habitats' (fig. 2).

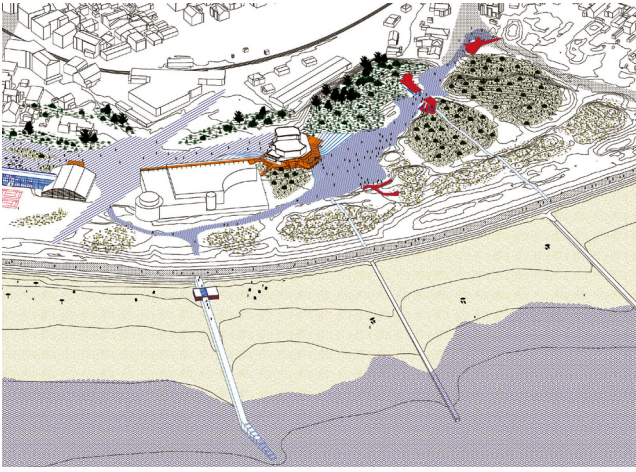
The winning project in Nyköping (SE), *Skavsta Forest City* (fig. 3), exhibits similar attitudes to that of the Mediterranean island, despite responding to different programs and belonging to opposite climates. This site 'consists mainly of planted forest land which has been felled at different stages'. Therefore, it emphasizes the use of wood as the primary raw material for the intervention, a material closely linked to the local productive conditions of this landscape and reinforcing the 'importance of the city as a trading site'. Wood is a sustainable resource that allows for construction with lower embedded energy (unlike concrete structures), while still enabling



2 – Eivissa (ES), special mention – *Build, Live and Repeat*  
> See more P.253



3 – Nyköping (SE), winner – *Skavsta Forest City* > See more P.223



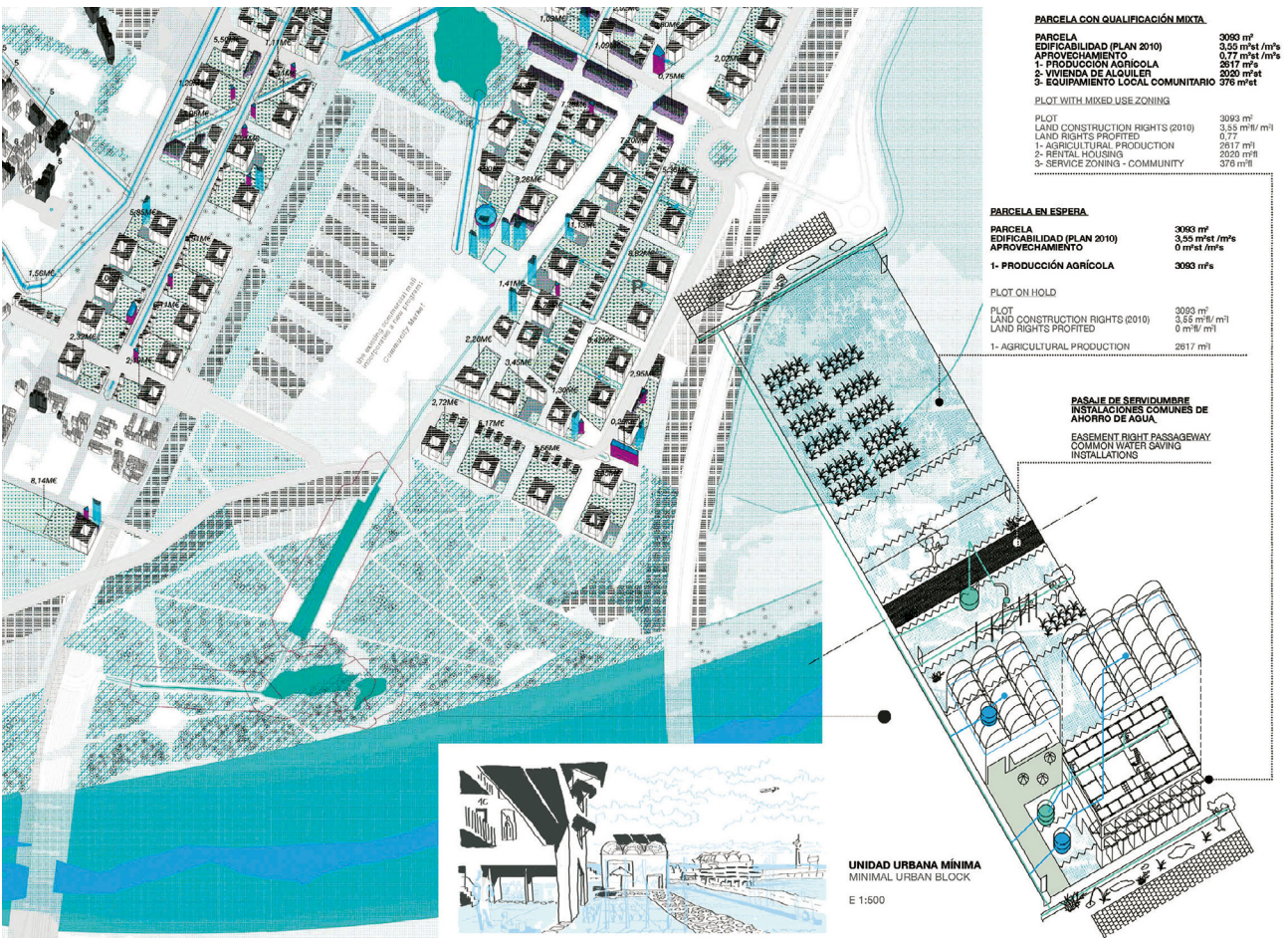
4 – Borkum (DE), winner – Re:duce Re:use Re:new > See more P201

the creation of large openings for maximum solar gain and interior habitability quality. Unlike in Eivissa, the pursuit of hygrothermal comfort is primarily active, but self-sufficient with systems powered by the by-products and waste from wood production, thereby creating renewable sources like bioenergy, but also extensive use of solar panels on the roofs and facades. Most of the forest land remains untouched and will be preserved, to provide this 'Living in the forest' idea through an 'interconnected network of green spaces that provide a framework for the city's development'.

In transition from the built object to the territory, the winning project in Borkum (DE), *Re:duce Re:use Re:new*, showcases a symbiotic approach to the pristine natural landscape of dunes, UNESCO biosphere reserve. The project emphasizes dune restoration as its essential element, and thus the flora and fauna inhabiting it, but also focuses its energy on working with a radical material circularity system: a process of urban mining is set up to avoid the long transport of materials to the island. Existing materials will be reused from a series of buildings to be dismantled (either totally or partially) as exclusive construction material for the various pavilions that accommodate and promote sustainable tourism in the area (fig.4).

### From Symbiosis to Sympoiesis

The territory serves as the reference point. In the face of a global economy that relies on distant resources (both in time and space), several keys contribute to fostering sustainable habitability on larger scales of implementation. The projects mentioned here aim to reclaim the productivity of the territory and rectify the damage caused, not only through the relationship between



5 – El Prat de Llobregat (ES), special mention – Pota Blava > See more P210

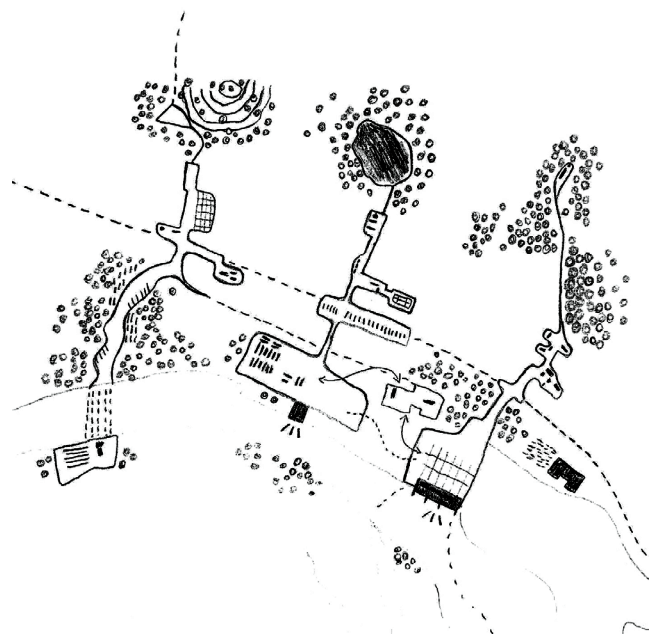


individual organisms but also through the interaction and collaboration among different elements of a broader system. This system may include organisms, technologies, natural environments, and other components.

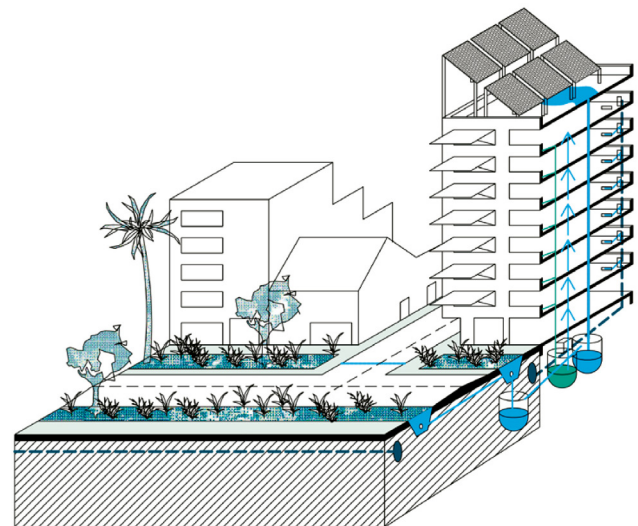
In El Prat de Llobregat (ES), the *Pota Blava* special mention project begins by disconnecting from the existing urban planning that marked an unsustainable development strategy halted by the 2008 economic crisis. The project proposes sustainable management where the hidden presence of water will be the main articulator of the new public spaces: connecting existing and new channels, reintegrating the delta, introducing phytodepuration strategies for reusing rainwater and greywater in buildings, etc (fig.5). Combined with energy self-sufficiency through solar capture and water as a sustainable climate regulator, it will improve the microclimatic conditions of the centre, still allowing agriculture to coexist with urban expansion areas for an affordable and sustainable lifestyle model, according to the authors.

While El Prat is flexible in configuration, its climate does not require a strong level of stress with the change of seasons. These fragile situations in constant mutation are crucial in the case of the special mention project, *The Octopus Enigma*, in Skellefteå (SE), where snow is captured to insulate buildings from winter cold and thermal conform is rethought considering the fire as the heart. In spring, as the snow melts, small cabins can be found along the riverside, while 'the river slowly fills with small aquatic creatures', as quoted by the authors. The nature here is nature is meticulously designing the locations that are developed and thus respected by the project (fig.6).

In conclusion, we've gone through some E17-winning projects that embody attitudes aimed at 'overcoming the risky deadlock of continuing-busines-as-usual'<sup>4</sup>. They play the same old game but on a new board that presents many more scales, consequences, and variables to explore (inter-species justice, ethical mutuality, sustainable co-belonging...), reclaiming all the valuable knowledge that the Industrial Revolution failed to harness.



6 – Skellefteå (SE), special mention – *The Octopus Enigma*  
> See more P.237



5 – El Prat de Llobregat (ES), special mention – *Pota Blava*  
> See more P.210

<sup>4</sup> See Socrates Stratis, 'Caring for...? Toward a Territorial Geographic Repair Approach', *European 16 Living Cities I Catalogue of Results*, p. 162.