

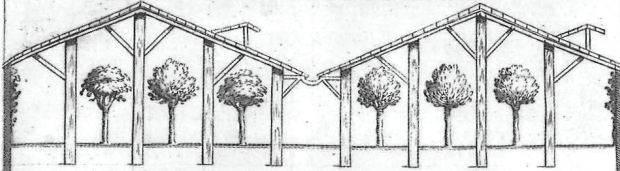


Greenhouse Studies

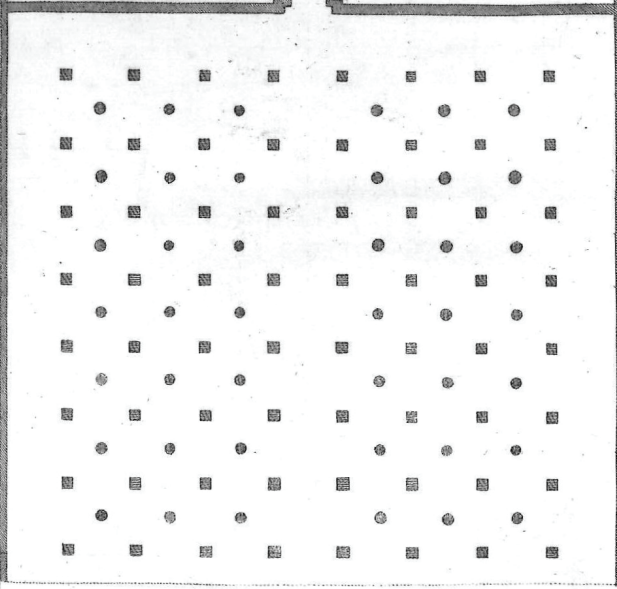
Design Studio BA6 MA2
Spring Semester 2025
EAST EPFL

461
ORTHOGRAPHIA POMARI MALIS MEDICIS CONSITI, ET HIBERNO TECTO DEFENSI

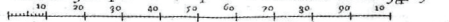
IN HORTIS PARMENSIBVS DVCLIS FARNESII



ICHTHOGRAPHIA DIMIDIATI EIVSDEM POMARI



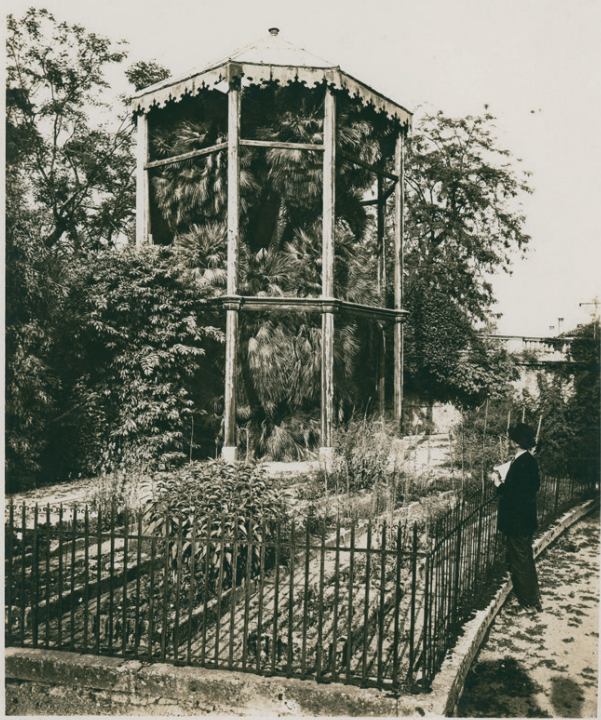
Linea modulorum siue partium, in palmos Romanos decadesq. distincta



Hieron. Rainaldus delin. C.C. Inc.

Overview.

What is a greenhouse without the green? Or a jardin d'hiver without winter? As part of the 'Tackle The Type' series, the studio will study greenhouses from a typological perspective and explore architecture as a set of climatic conditions beyond its formal and functional characteristics.



Orto Botanico di Padova 1928

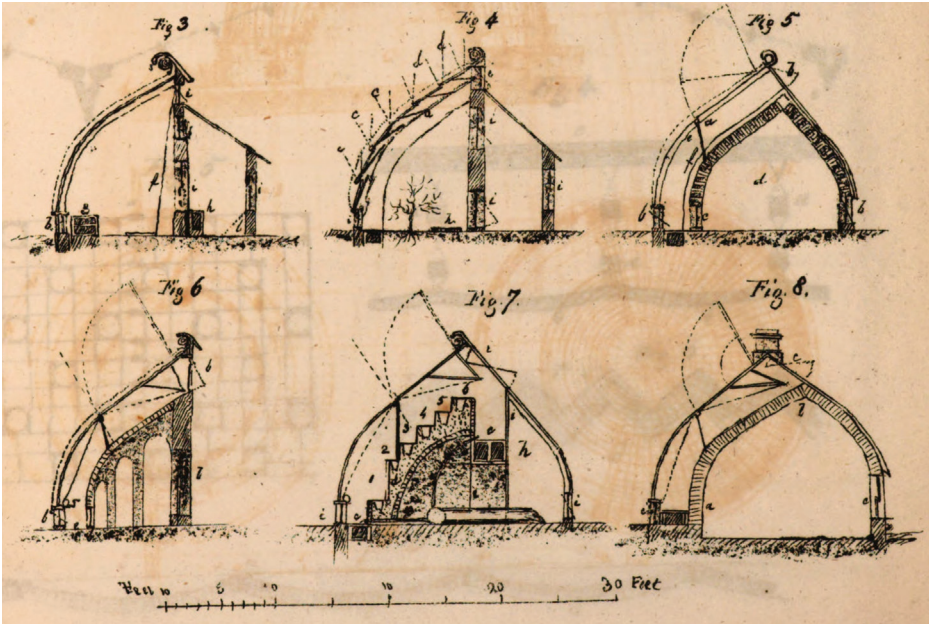
La Palma di Goethe

On the one hand.

Conservatories, greenhouses, glasshouses, forcing houses, hothouses, ‘invernaderos’ in Spanish, ‘orangeries’, ‘jardins d’hiver’ or ‘serres’ in French—many are the terms associated with the idea of housing plants. All of these artefacts have a common goal: to create a climate adapted to plant life. Although greenhouses were conceived with a very precise objective, this climatic space quickly became an exhibition space, a social space, and even a space for celebrations before it fell into disuse.

In the second half of the 20th century, greenhouse based solutions made a comeback, fostering solar architecture and reinforcing the foundations of bioclimatic architecture in western societies. During this time, horticulture continued developing greenhouses as productive spaces, and innovations led to intensive fields of production. In absolute terms, it is not the form or function that characterizes the greenhouse but the definition of a space with specific climatic conditions.

In most cases, using wood or metal structures and transparent materials such as glass, these structures keep a very low ratio between the material used and the enclosed space, offering the most with the least. The characterization of the greenhouse as an artefact of a climatic nature suggests that the greenhouse as a type does not depend on scale or size.



On the other hand.

Typology is widely recognized as a fundamental concept for better understanding architecture and its history. It serves as the underlying framework, a kind of tacit backbone, for organizing architectural knowledge and can also be a tool for generating new architectural solutions.

Some argue that typology is as old as architecture itself, as it involves the reproduction of dominant types and models deeply rooted in socio-cultural realities. Alternatively, it can be said that architecture responds to new social and economic needs through the invention or revision of existing types.

Typology and types have traditionally interacted with the formal dimension (buildings organized by a common form or element) and the functional dimension (buildings organized by a common function). However, this focus has often overlooked other less tangible possibilities, such as structural relationships between types and climate in architecture.



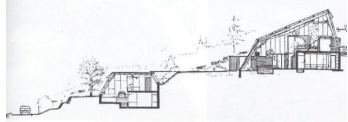
Both hands together now.

The design studio will focus on the dynamics between greenhouses in relation to existing buildings and domestic spaces. We will study the interactions that can occur and gain a better understanding of the typological transfers and climatic synergies between different spaces. Greenhouse-like structures will provide the opportunity to study prefabricated systems, test design for deconstruction and reversibility in design thinking, and ultimately a “light-er” way to care, improve or transform existing buildings.

Through the study of greenhouses as specific built environments, the studio will aim to formulate solutions based on the concept of architecture as atmosphere while exploring their transformative potential. Additionally, by examining greenhouses as climate-responsive artefacts, the studio will explore how seasons can transform space, or, in other words, what it means to inhabit spaces seasonally. Finally, through the study of greenhouses as places of symbiotic life(s), the studio will cultivate knowledge where others would simply build.



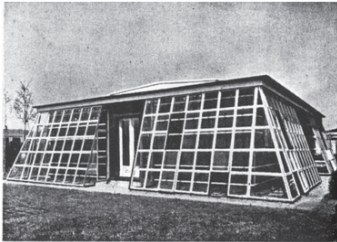
Eleanor Raymond, Mária Telkes, Dover Sun House, 1948



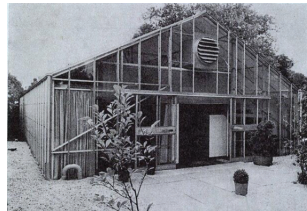
Frei Otto, Haus Otto, Leonberg-Warmbronn, 1967-69



Thomas



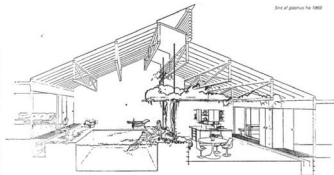
Martin Wagner, Wachsendes Haus, 1932



John Hix + students, Greenhouse, Cambridge, 1969



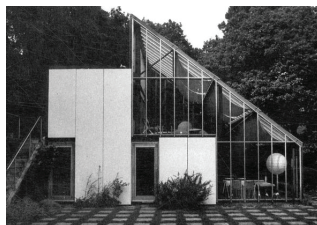
LOG ID, House, Tuebingen



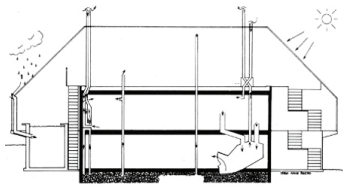
Ib and Jørgen Rasmussen, Glass-House prototype, 1967-69



Students, Heinrich Eisler



Colquhoun + Miller, Pillwood House, Cornwall, 1971



Bengt Warne, Naturhus Saltsjöbaden, 1976

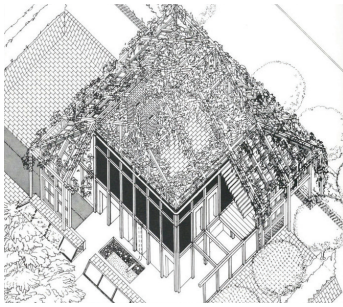


Herzog, House Regensburg, 1979

69



ingen, 1976



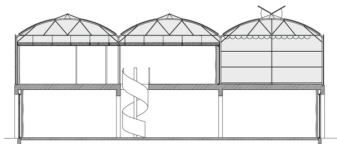
OM Ungers, Solar house, 1980



Lacaton & Vassal, House Latapie, Bordeaux, 1993



Jourda Perraudin, Maison Serre, Lyon, 1984-85



Lacaton & Vassal, Cité Manifeste, Mulhouse, 2005



Esler and Wolf Hoffman, ESA, 1981-87



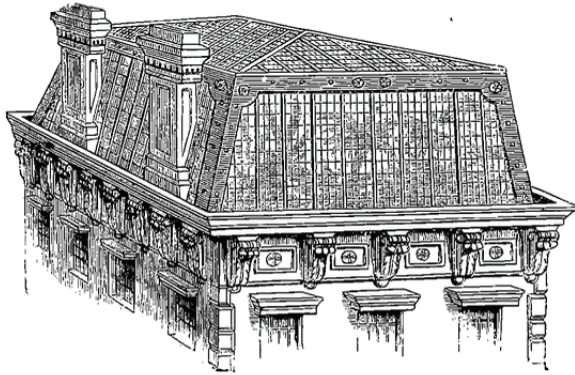
Lacaton & Vassal, Maison, Coutras, 1999



INTERIORS



“According to our ideas of the enjoyments of the green-house, it is essential that it be situated close to the house; not merely near, but immediately adjoining it; and attached to it either by being placed against it, forming a part of the edifice; or by means of a corridor, viranda, or some other description of covered passage.” John Claudius Loudon (1825)



Design Studio preview

Tackle the Type
Greenhouse Studies
Spring Semester 2025 BA6 MA2
Laboratory EAST - EPFL

Team:
Tiago P. Borges, Martin Fröhlich and external guests

A reader to complement the course will be distributed to all participants.
The course is held in English and French.