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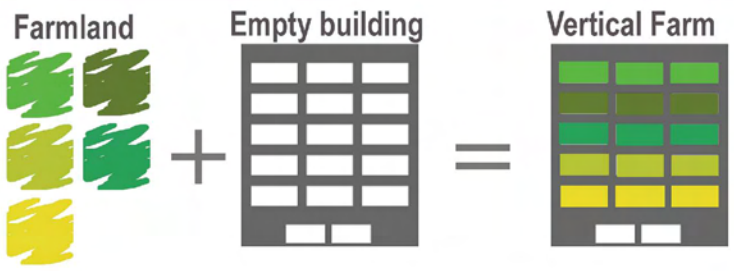
BRICKBORN FARMING

INDOOR FOOD PRODUCTION IN URBAN AREAS
A CASE STUDY

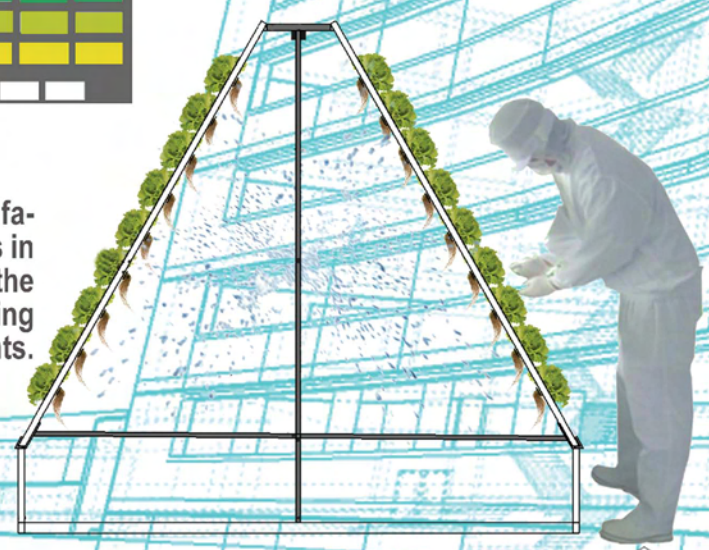
Problem

FOOD SECURITY is a high priority topic in both, research and practice. It's just a matter of time for the Planet to face it. Climate change, scarce resources, population growth and urban sprawl are the main challenges that the humanity is due to confront in a progressive way until it reaches one of the projected peak, in 2050. Researchers all around the world try to respond to these challenges, through different technological breakthroughs, innovations and data analysis in order to understand the processes undergoing. They aims are to prevent, aid and combat high risks that face the World. Practitioners try to improve their capital through applying this improvements while always having a positive impact on the environment.

Project proposal



Vertical farms (VF) are controlled environment facilities that grow various vegetables and herbs in hydroponic technology, in order to maximise the yield, while using resources efficiently and being independent of the negative weather events.



-Soilless cultivation methods have an extremely high potential for lowering the cost of production.

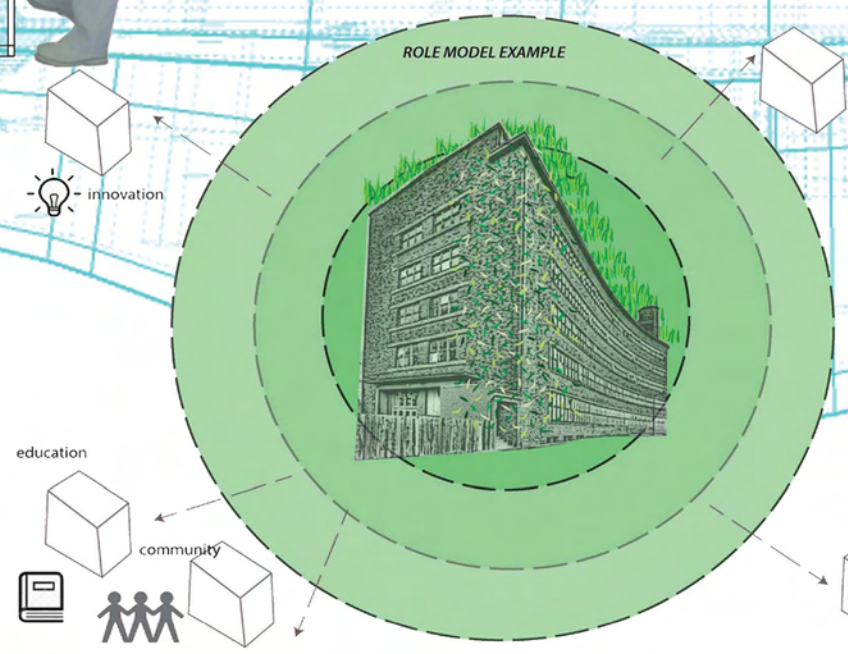
-In comparison to open field production, up to 90% of the used water can be saved in closed circuit production.

-The closed circuit technology also prevents the costly released of fertilizers into the environment.

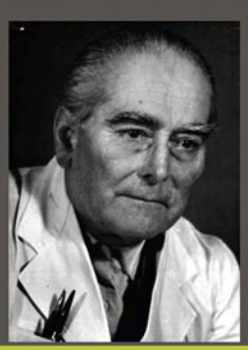
-The cultivation in a building provides an environment protected from unfavorable weather.

-A secure domestic year-round production can be guaranteed.
-Transport of products from the most remote areas of other countries can be avoided.

-Growing in a vertical dimension increases the available production surface area by many times, thereby increasing productivity per ground unit of area.

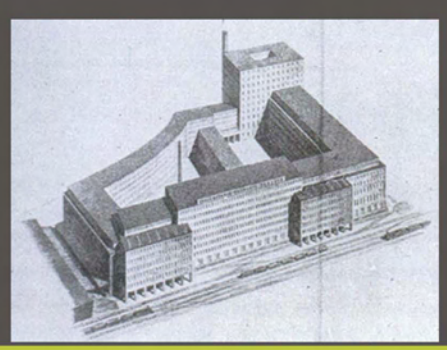


Hystorical background

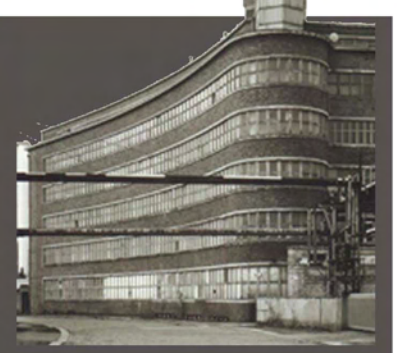


- by Archiect Kurt Bärbig
- constructed from 1927 to 1930
- proccesed food production facility
- brick and clinker materials
- curved facade - defines the space in the street

1920s



- facilty not completed due to the 1920s economic crisis
- 12.000 square meters space available
- not used since 1991



2010s

7th international AESOP SUSTAINABLE FOOD PLANNING CONFERENCE 2015
Localizing Food Strategies
FARMING CITIES + PERFORMING RURALITY 8.9/10 TORINO

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University of Gastronomic Sciences
Università degli Studi di Scienze Gastronomiche

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POSTER SESSION