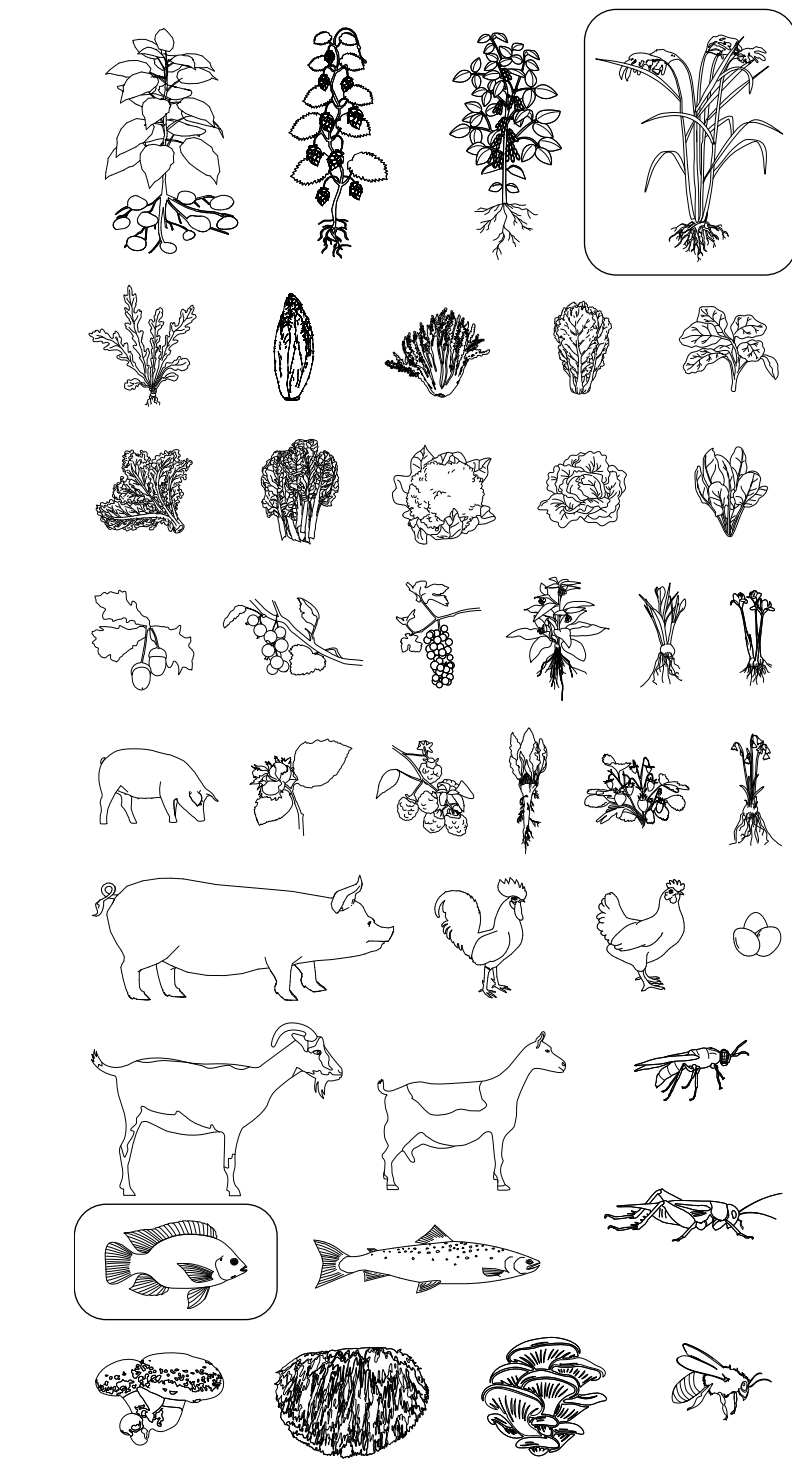


# APB.06

RONJA DMOCH



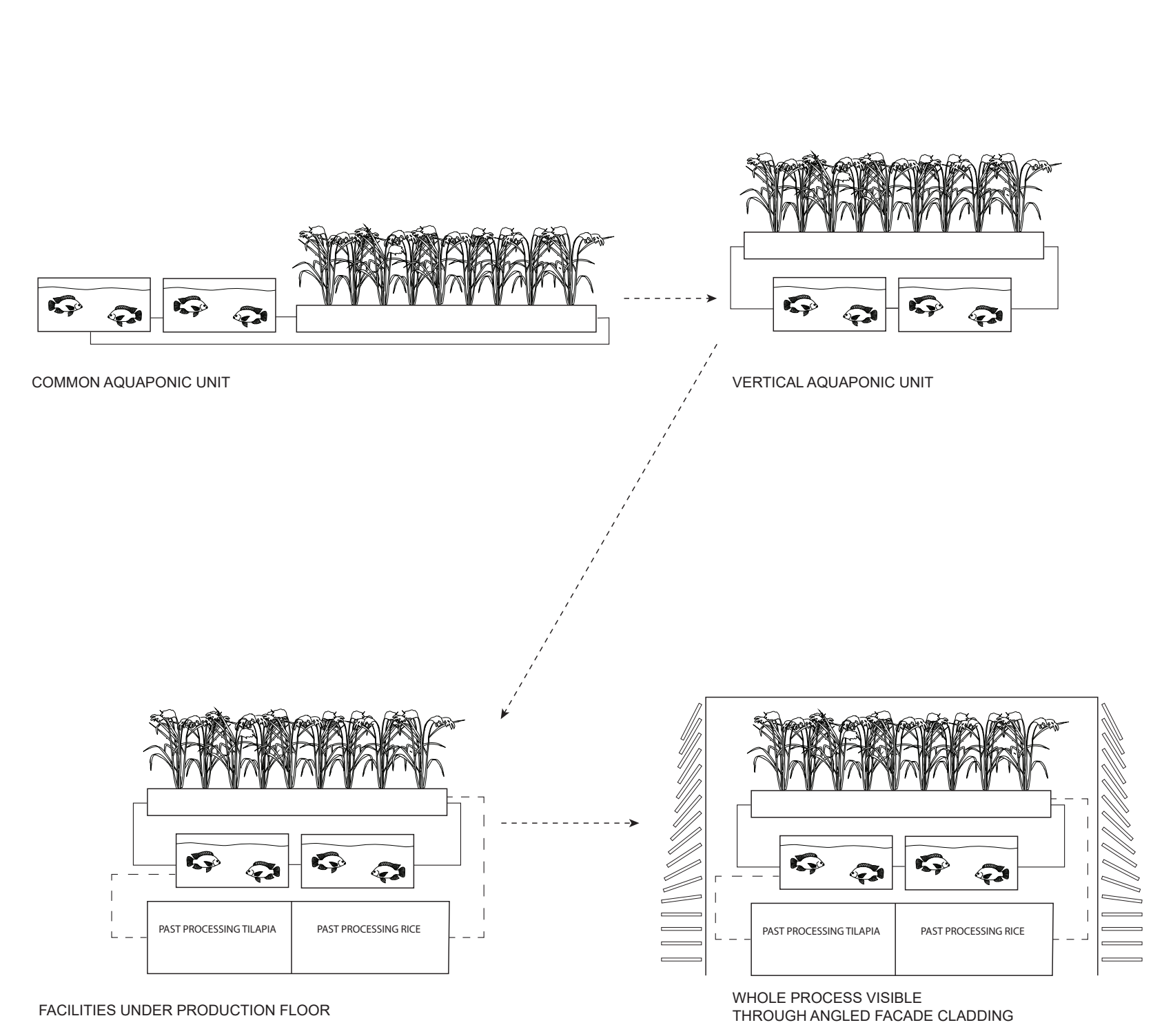
The Aquaponic Box is a farm designed to facilitate the production and processing of brown rice and tilapia, a fish sort today only farmed in Asia. The place where the aquaponic system originates from. Already thousands of years ago, farmers in the rice paddies used the synergy between fish and plants. It forms a highly balanced closed system in which the fish benefit from the nutrients the plants provide and vice versa.

The design of the farm makes it possible for the public to see every step of the process through the facade and the two aligning corridors right behind it. Furthermore is a restaurant integrated into the farm where guests can enjoy a meal from fresh products while watching the past production of rice. The harvesting routes as well as all systems (fishfeeding, watermanagement etc) are coming together at a central point on the first floor, and connect to the groundfloor through a void.

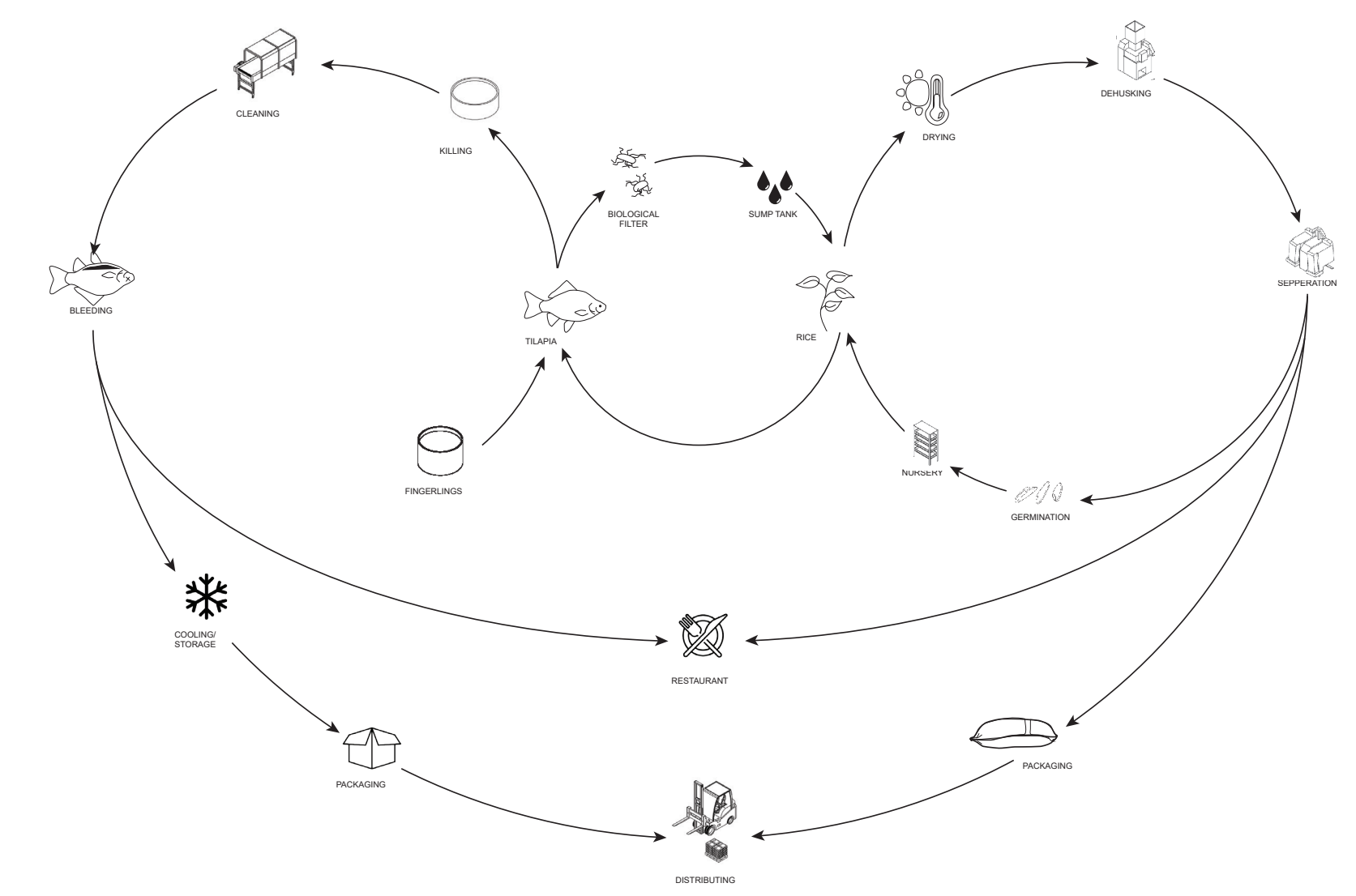
**TILAPIA**  
growing time 6 months  
1400 fish harvested every 30 days  
annual harvest: 16,800 fish = 5,040 kg

**RICE**  
growing time 4 months  
10080 plants harvested every 10 days  
annual harvest: 362,880 plants = 36,288 kg

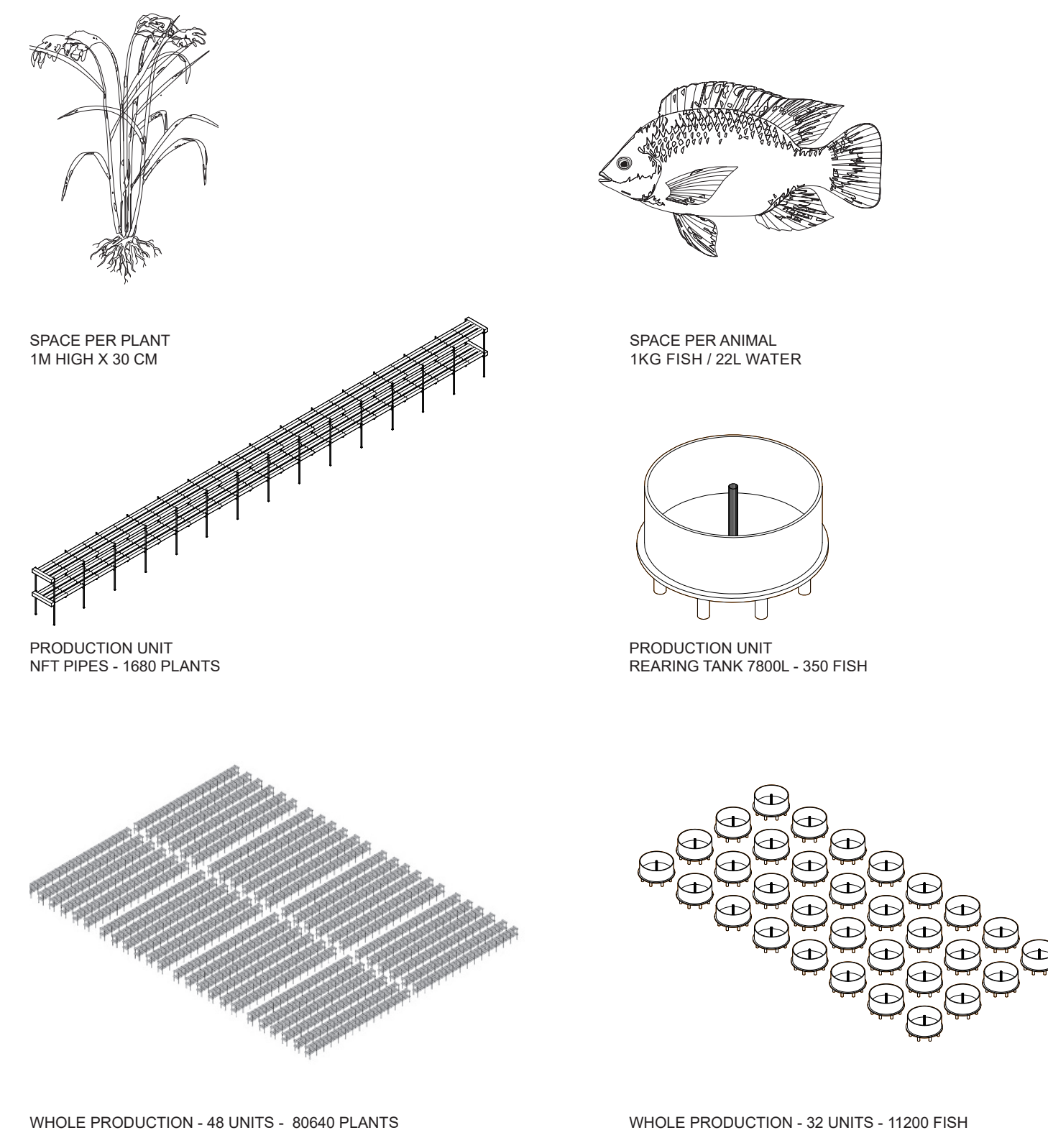
MENU



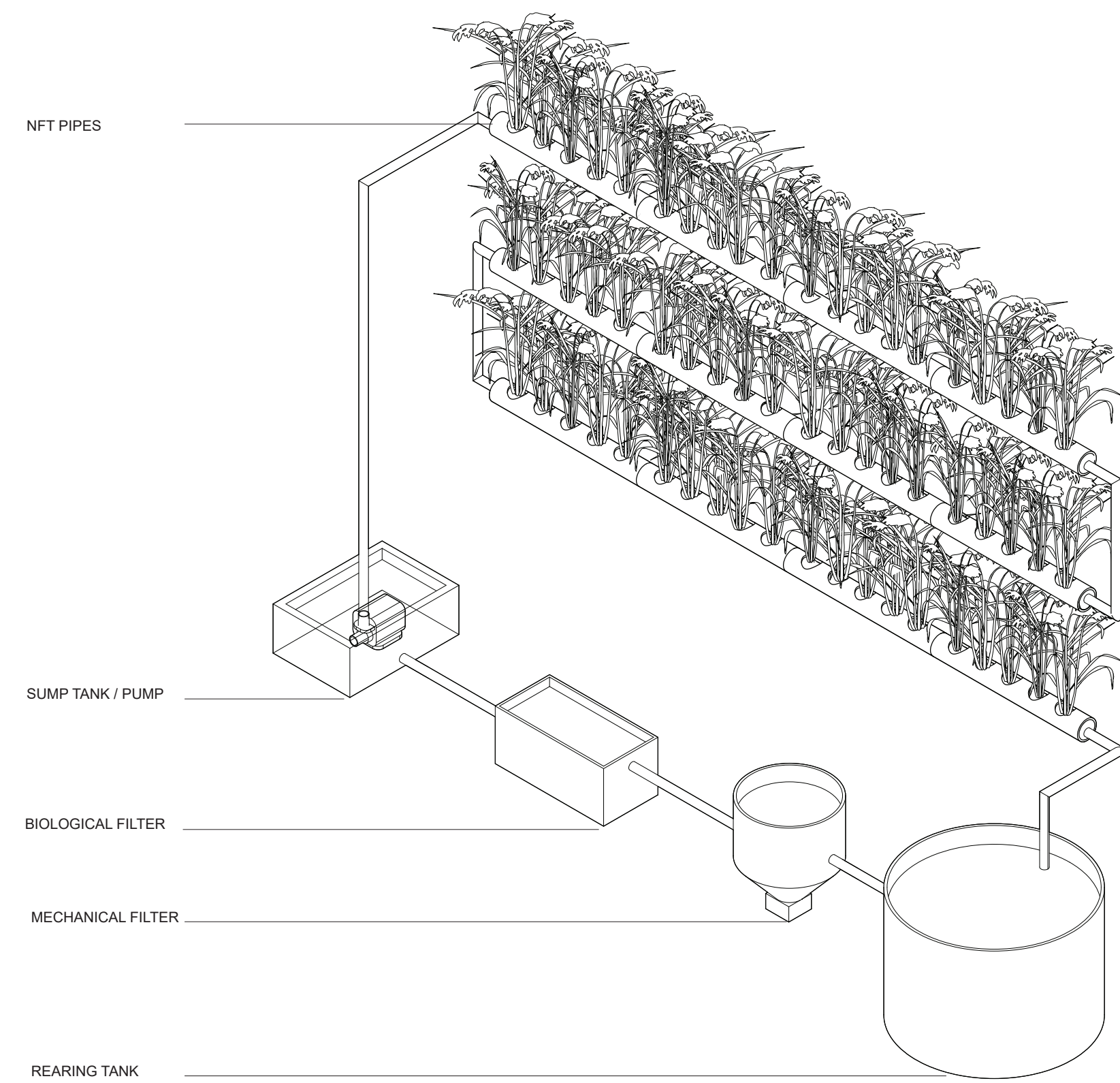
CONCEPT



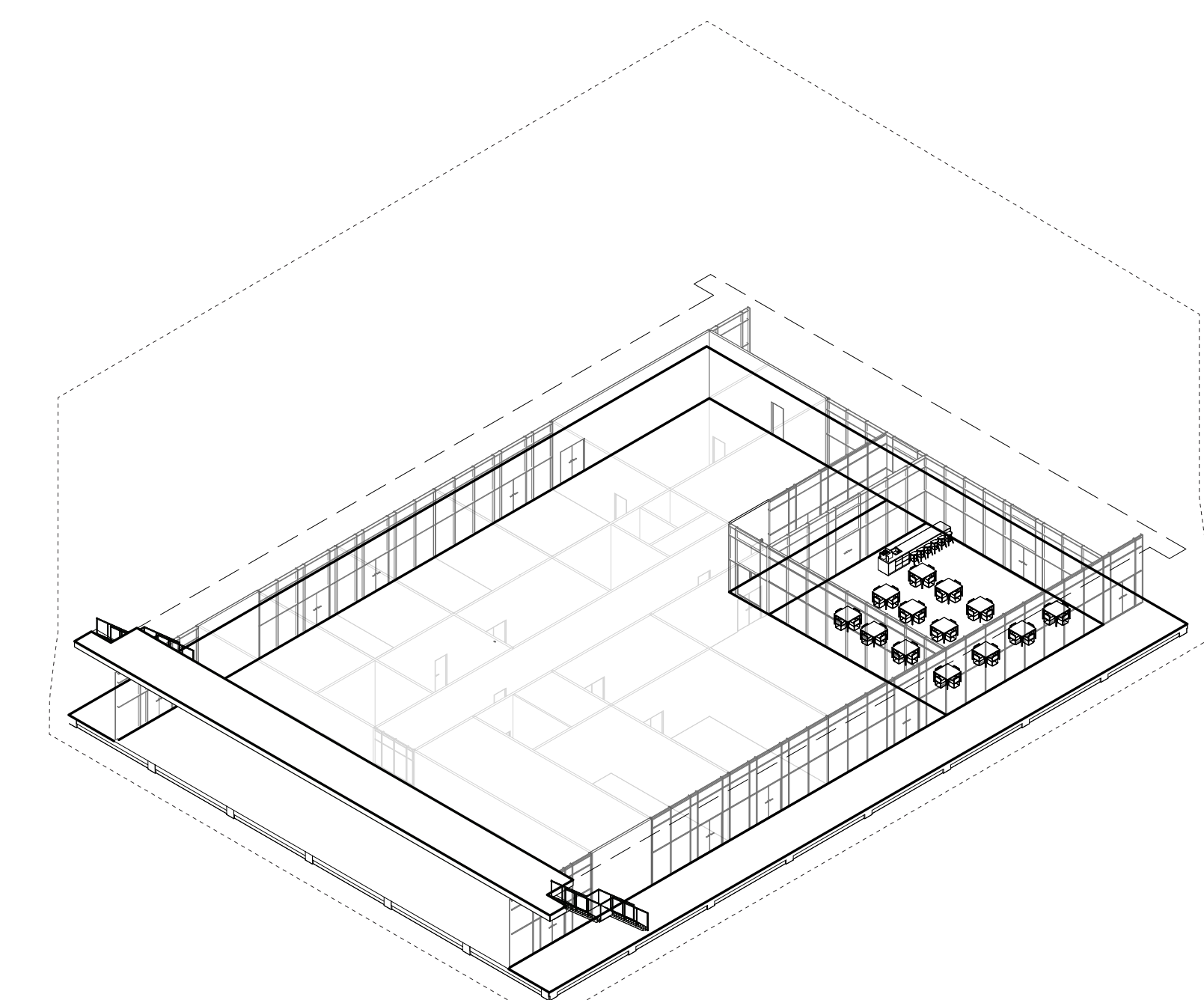
CIRCULARITY



PRODUCTION RICE

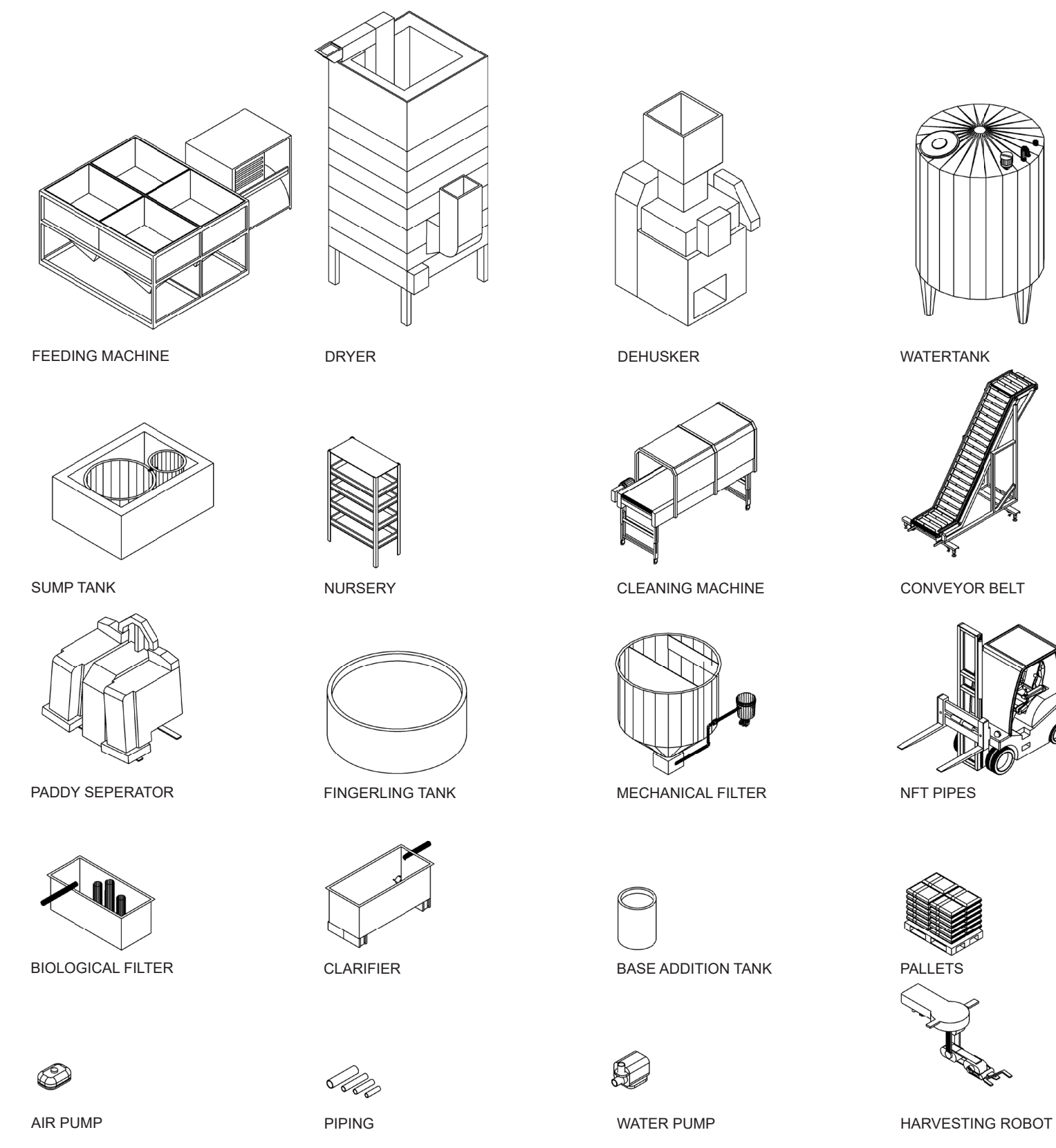


PRODUCTION SYNERGY

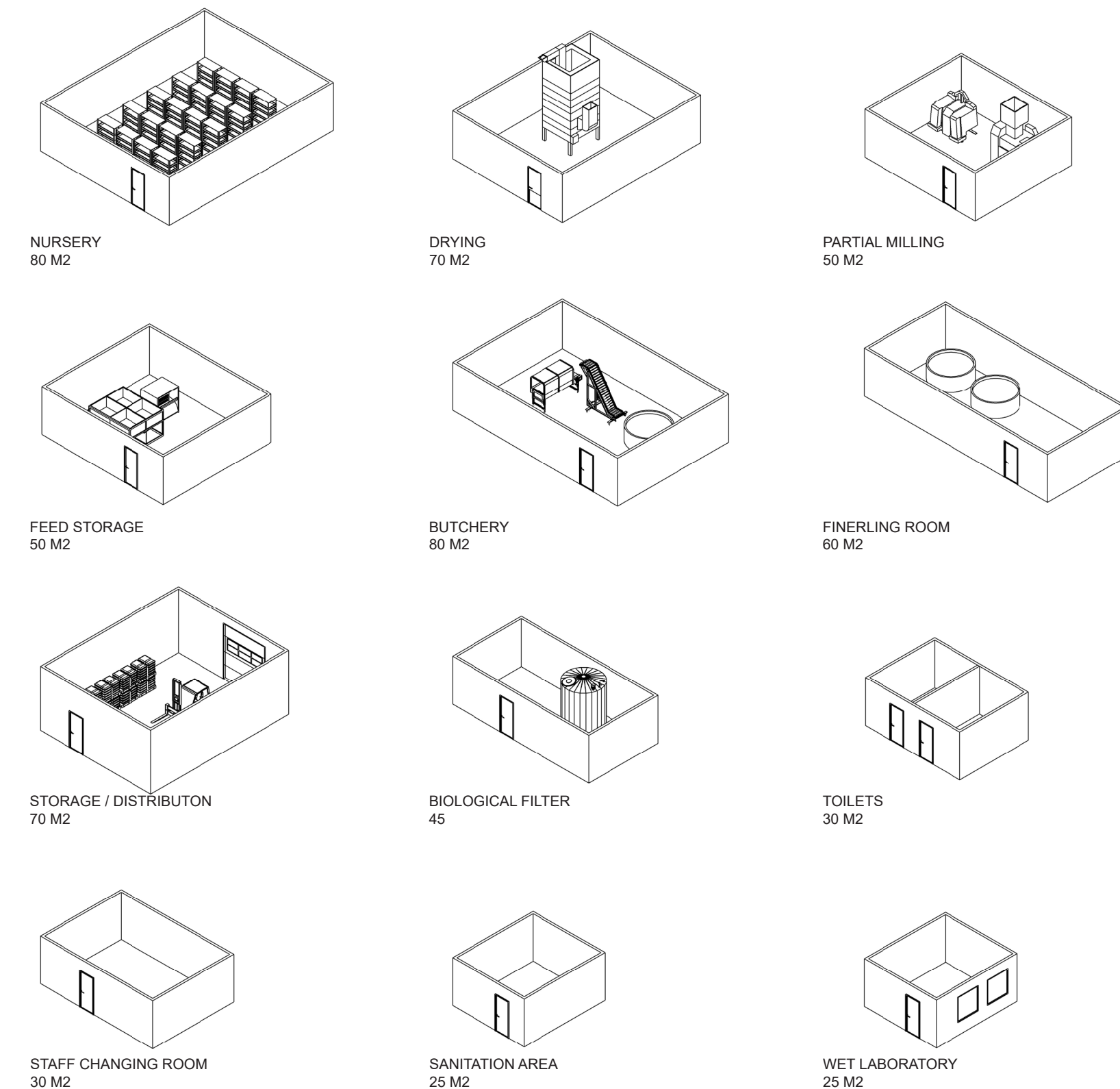


RESTAURANT & EDUCATIONAL ROUTE

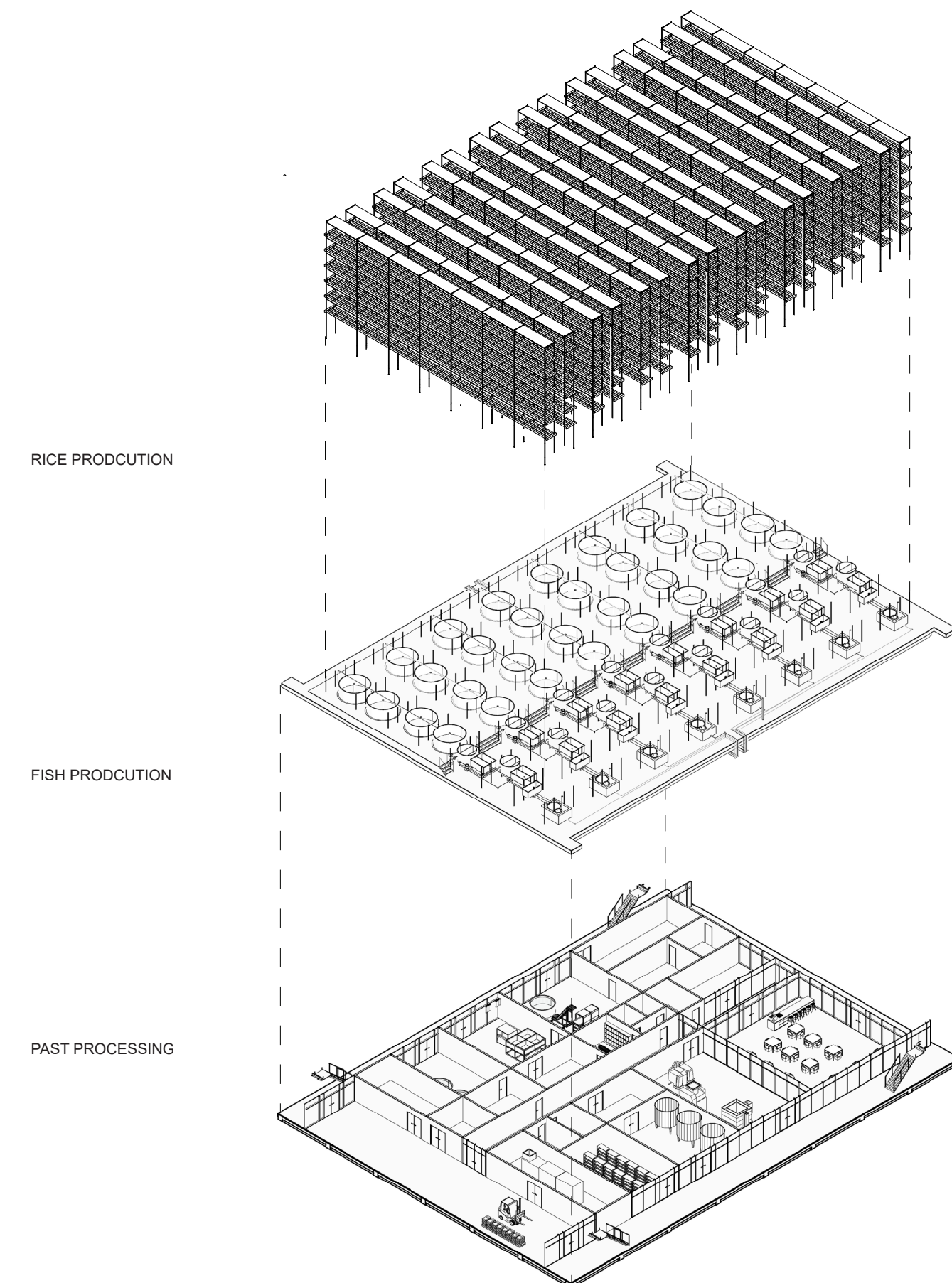
AGRI-CULTURE



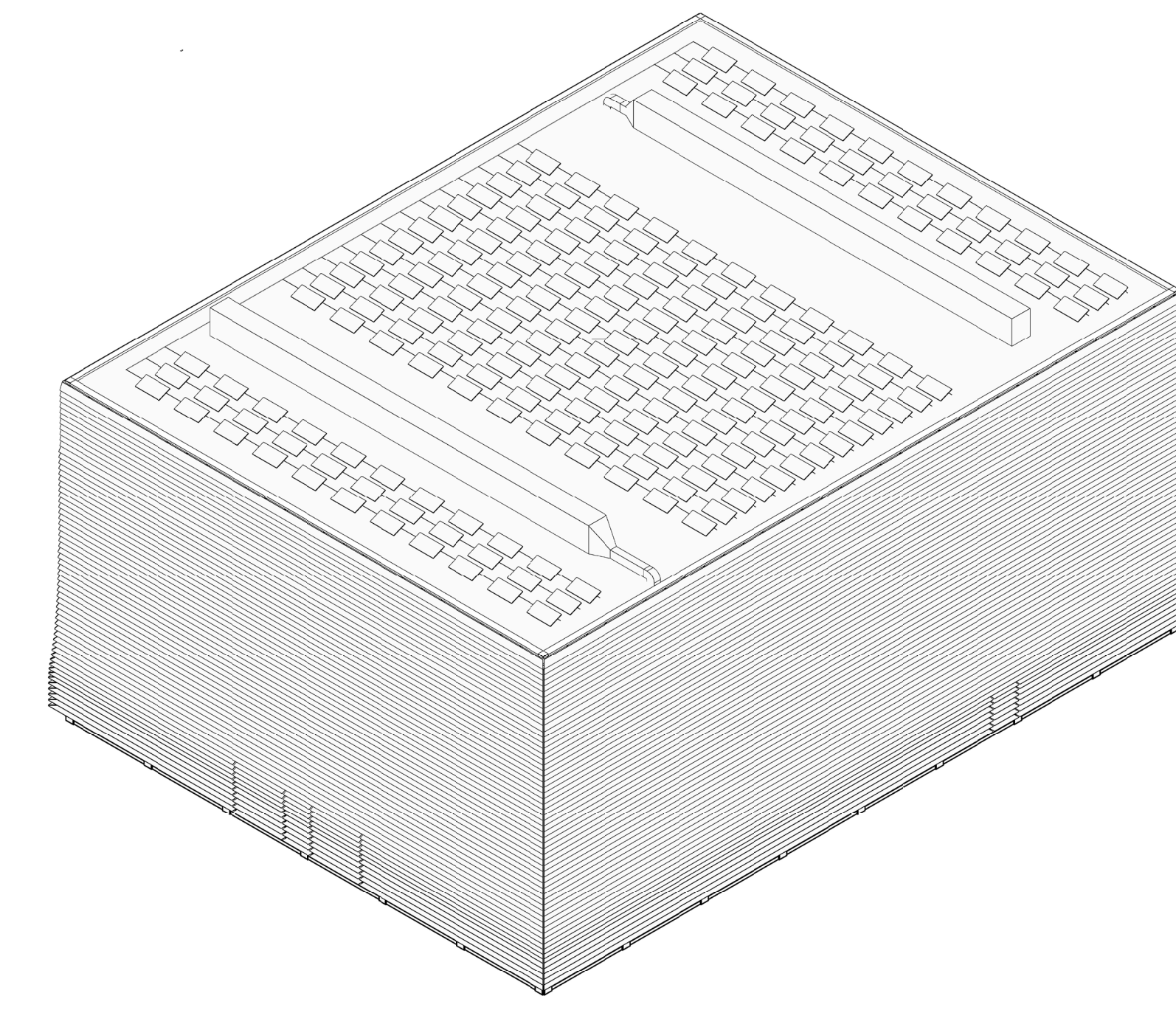
TECHNOLOGY



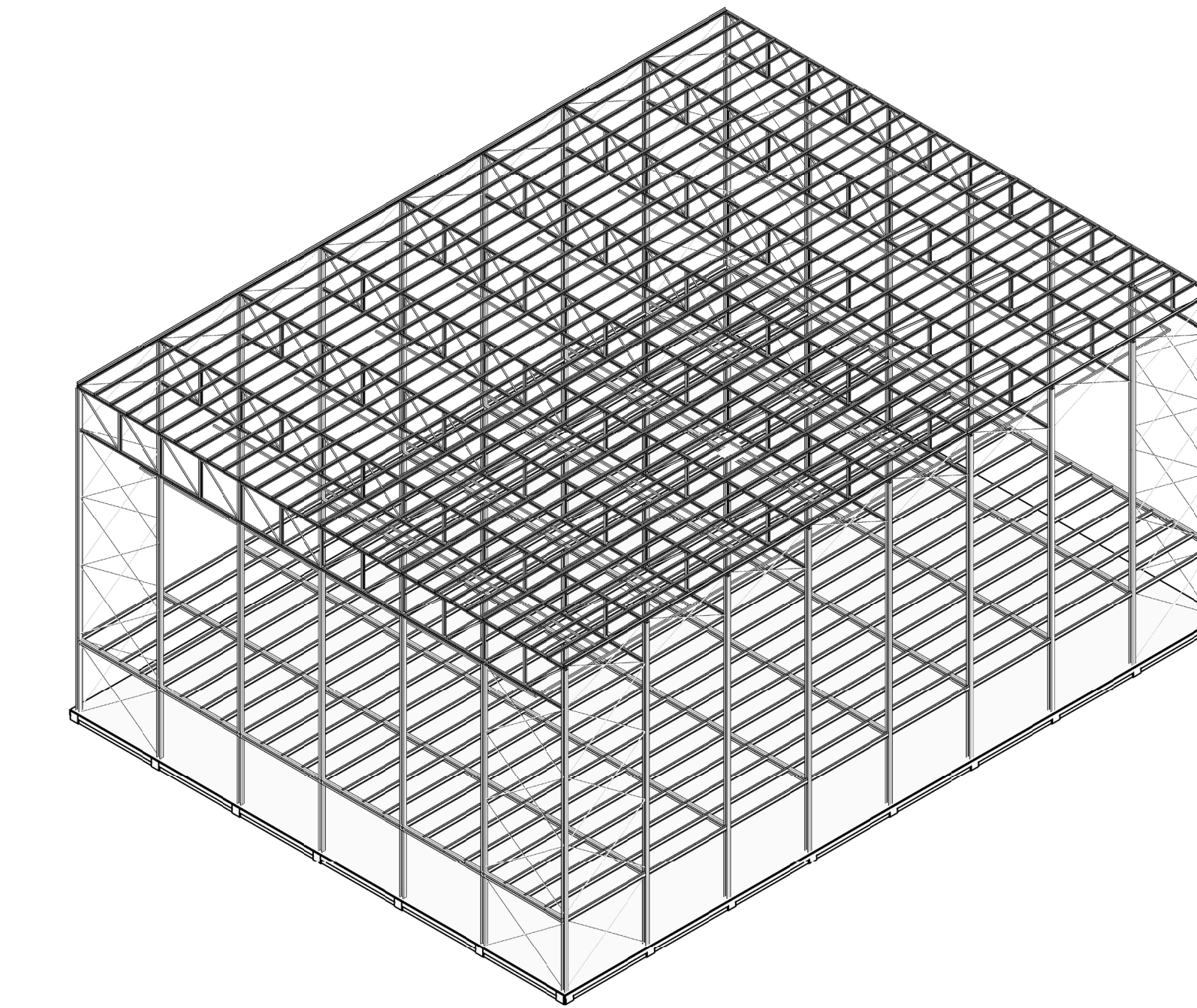
PROCESSING & PACKAGING



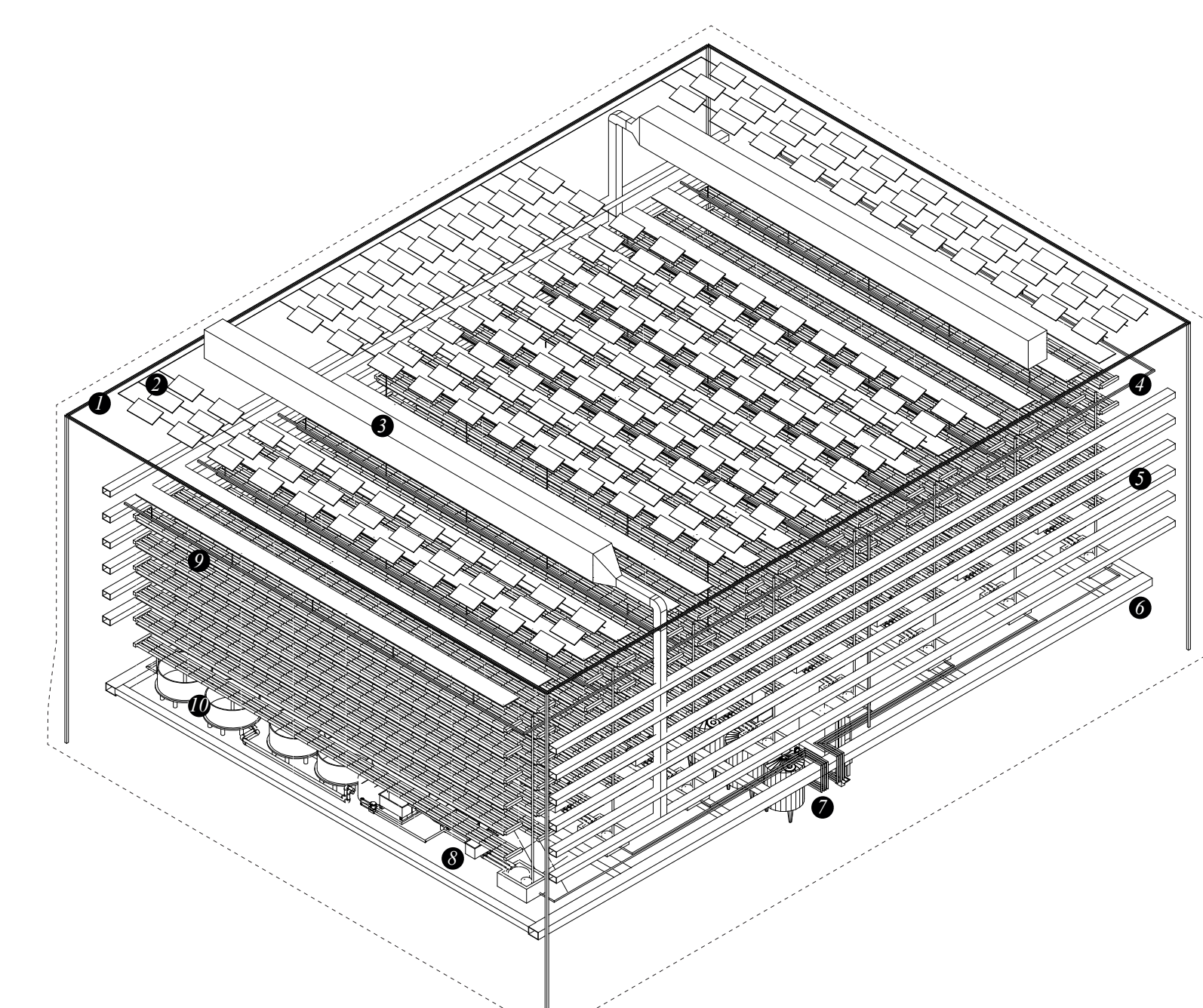
THE COMPACT MODEL



ARCHITECTURE

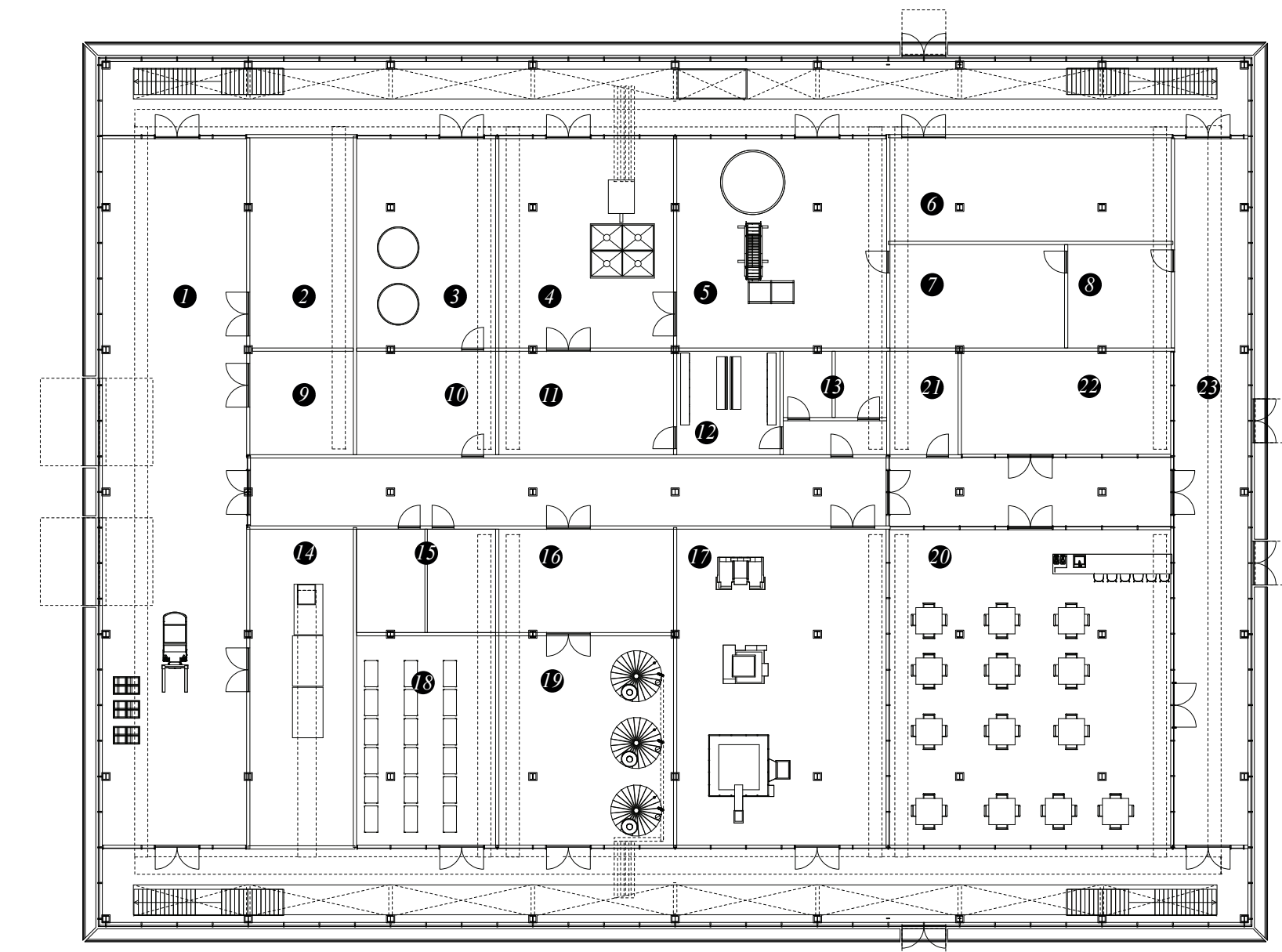


STRUCTURE



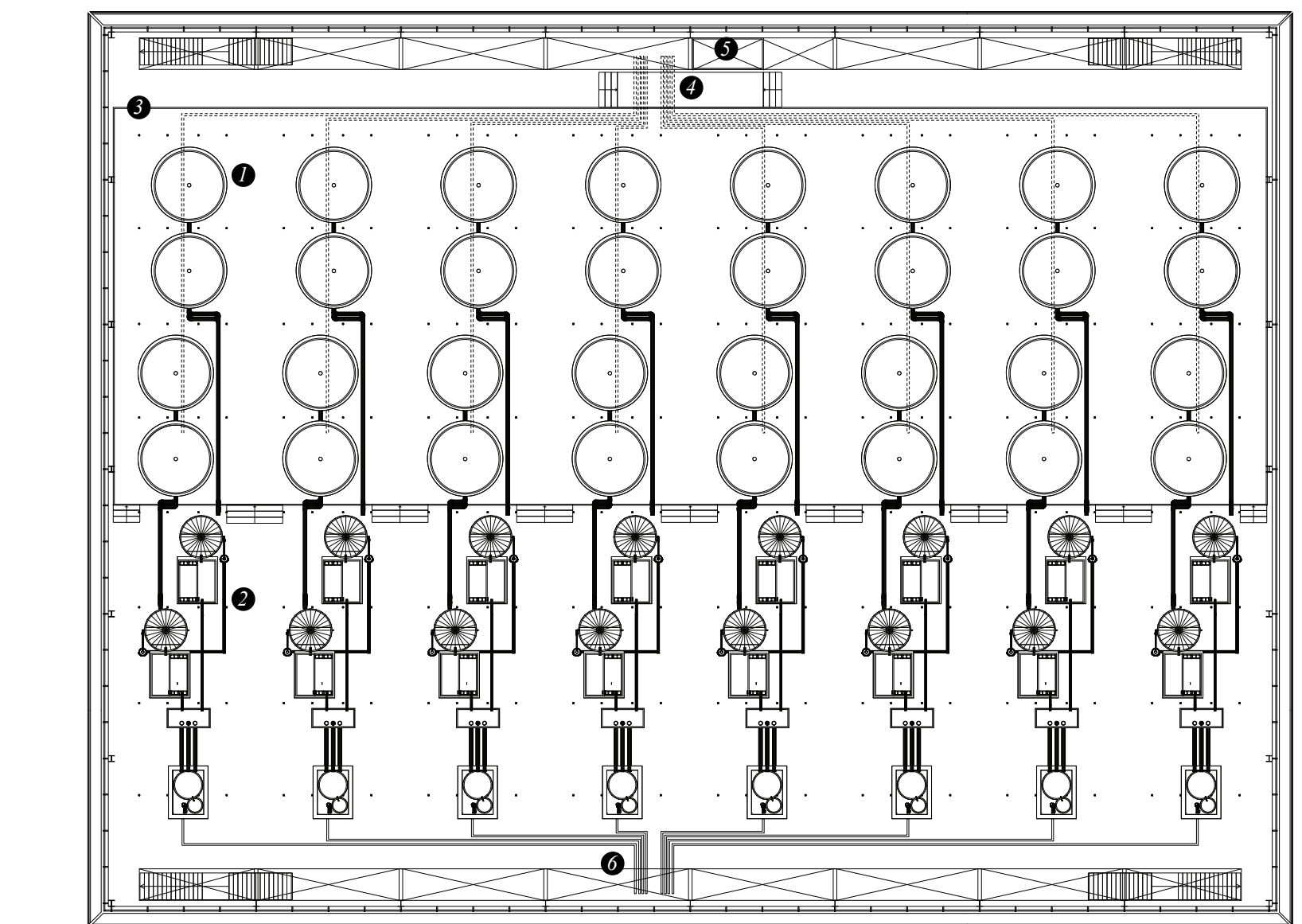
- RAINWATER
- PHOTOVOLTAIC SYSTEM
- VENTILATION UNIT
- HARVESTING ROBOT
- VENTILATION PRODUCTION FLOOR
- VENTILATION GROUND FLOOR
- WATER MANAGEMENT
- PRODUCTION UNIT FILTRATION
- PRODUCTION UNIT RICE
- PRODUCTION UNIT TILAPIA

INFRASTRUCTURE



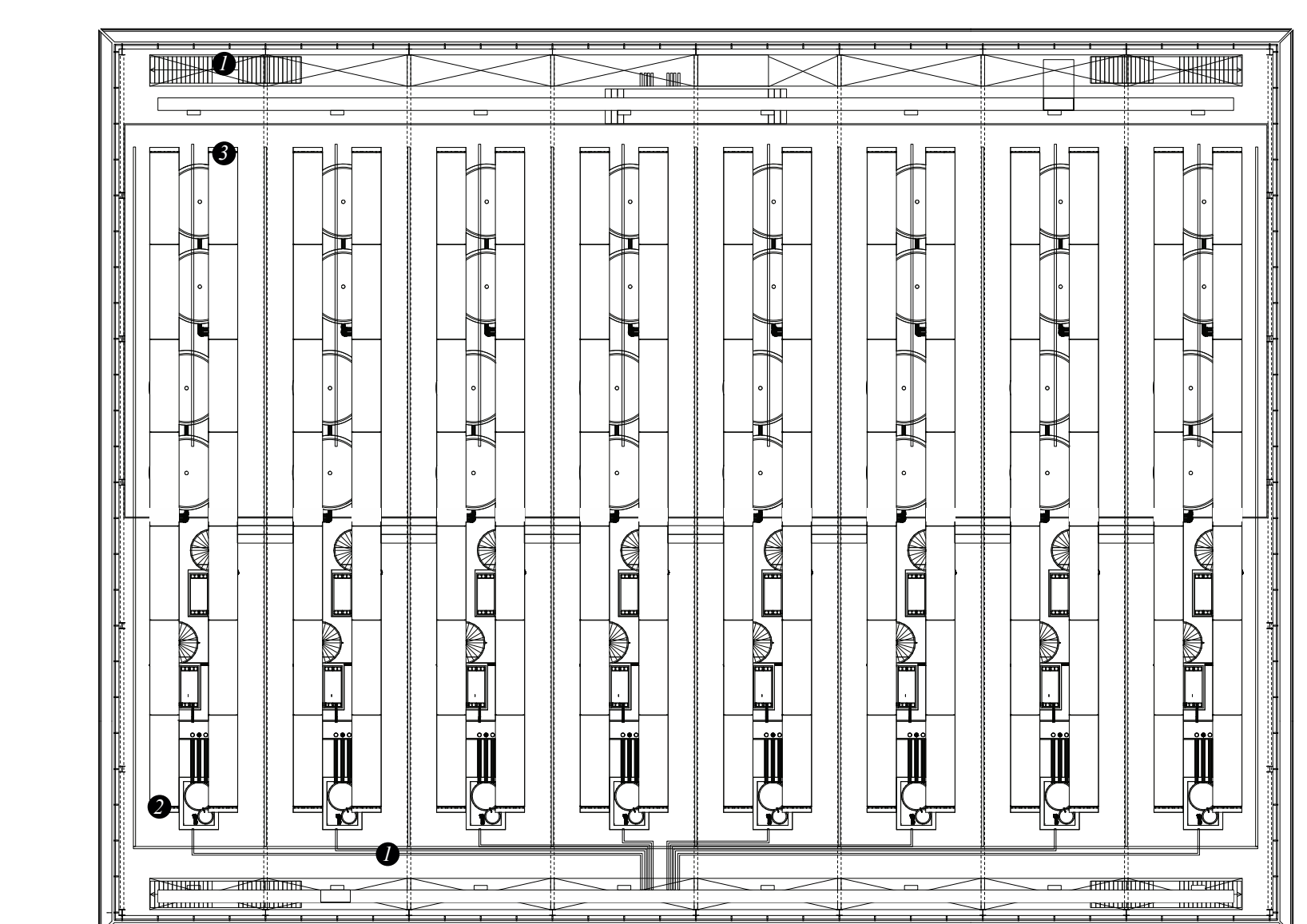
- DISTRIBUTION AREA
- STORAGE PRODUCTS
- FINGERLINGS
- FISH FEED SYSTEM
- BUTCHERY
- TECHNICAL MAINTENANCE
- COOL & DRY STORAGE KITCHEN
- OFFICE RESTAURANT
- EQUIPMENT TILAPIA FARMING
- SANITATION AREA
- STAFF CHANGING ROOM
- TOILETS
- AIR CONDITIONING UNIT
- TOILETS
- EQUIPMENT RICE FARMING
- PARTIAL RICE MILLING
- NURSERY
- WATER STORAGE / MAINTENANCE
- RESTAURANT
- TOILETS GUESTS
- KITCHEN
- VISITOR ENTRANCE AREA

FLOOR PLAN 00



- REARING TANK
- FILTRATION
- ELEVATED FLOOR
- FISHFEED DISTRIBUTION
- ELEVATOR
- WATER DISTRIBUTION

FLOOR PLAN 01



VENTILATION SHAFTS

FLOOR PLAN 02