

THE FOOD PRODUCTION EXPERIENCE

P5 ARCHITECTURAL ENGINEERING

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INTRODUCTION

SOUTH LIMBURG

PROBLEM STATEMENT

AREAS FOR IMPROVEMENT IN AGRICULTURAL SECTOR

THE CONCEPT

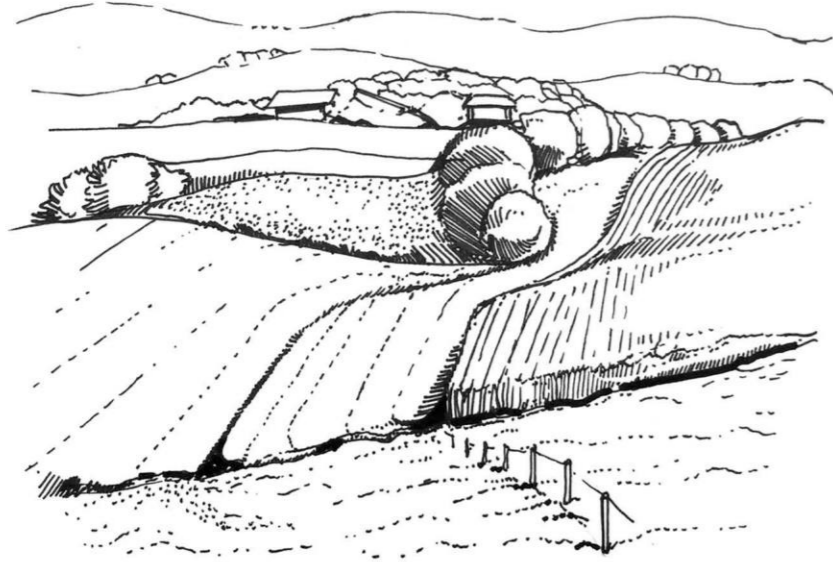
MODEL FOR SUSTAINABLE FOOD PRODUCTION

ARCHITECTURAL DESIGN

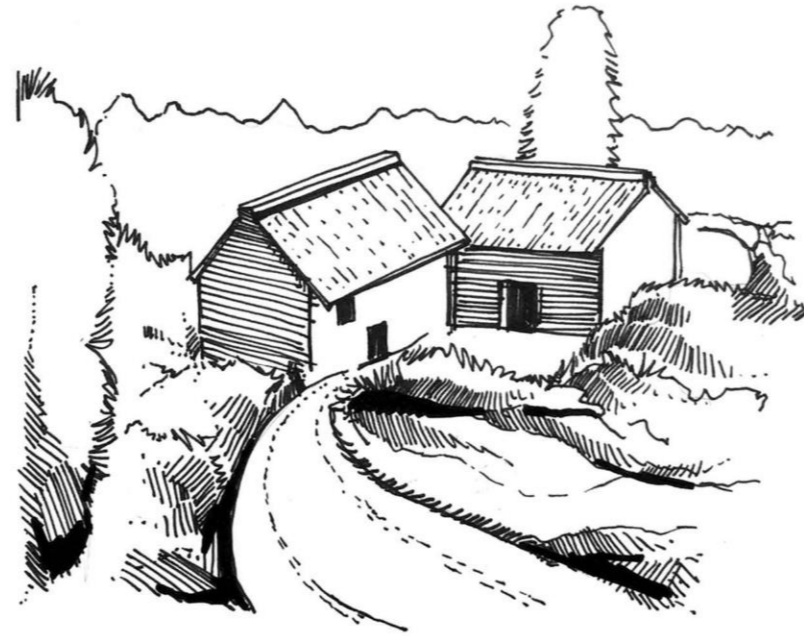
THE FOOD PRODUCTION EXPERIENCE



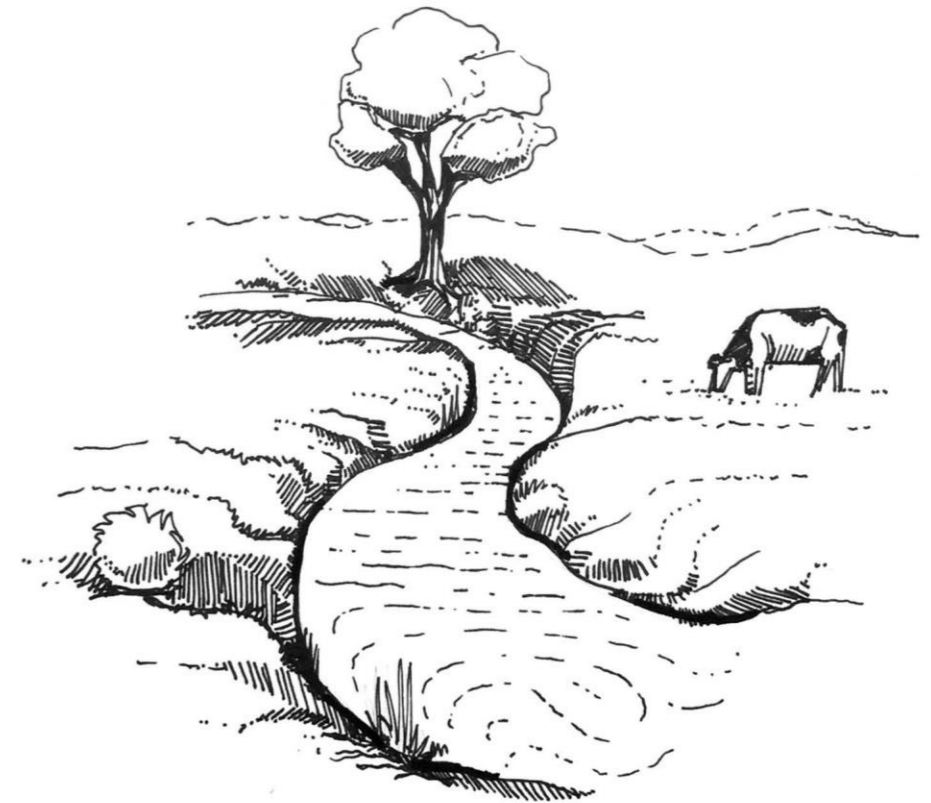
SPIRIT OF THE PLACE
SOUTH LIMBURG - VINCENT VAN GOGH



FERTILE GROUNDS AND
NATURAL RESOURCES



PLACE OF HABITATION FROM
FROM ROMAN UNTIL NOW



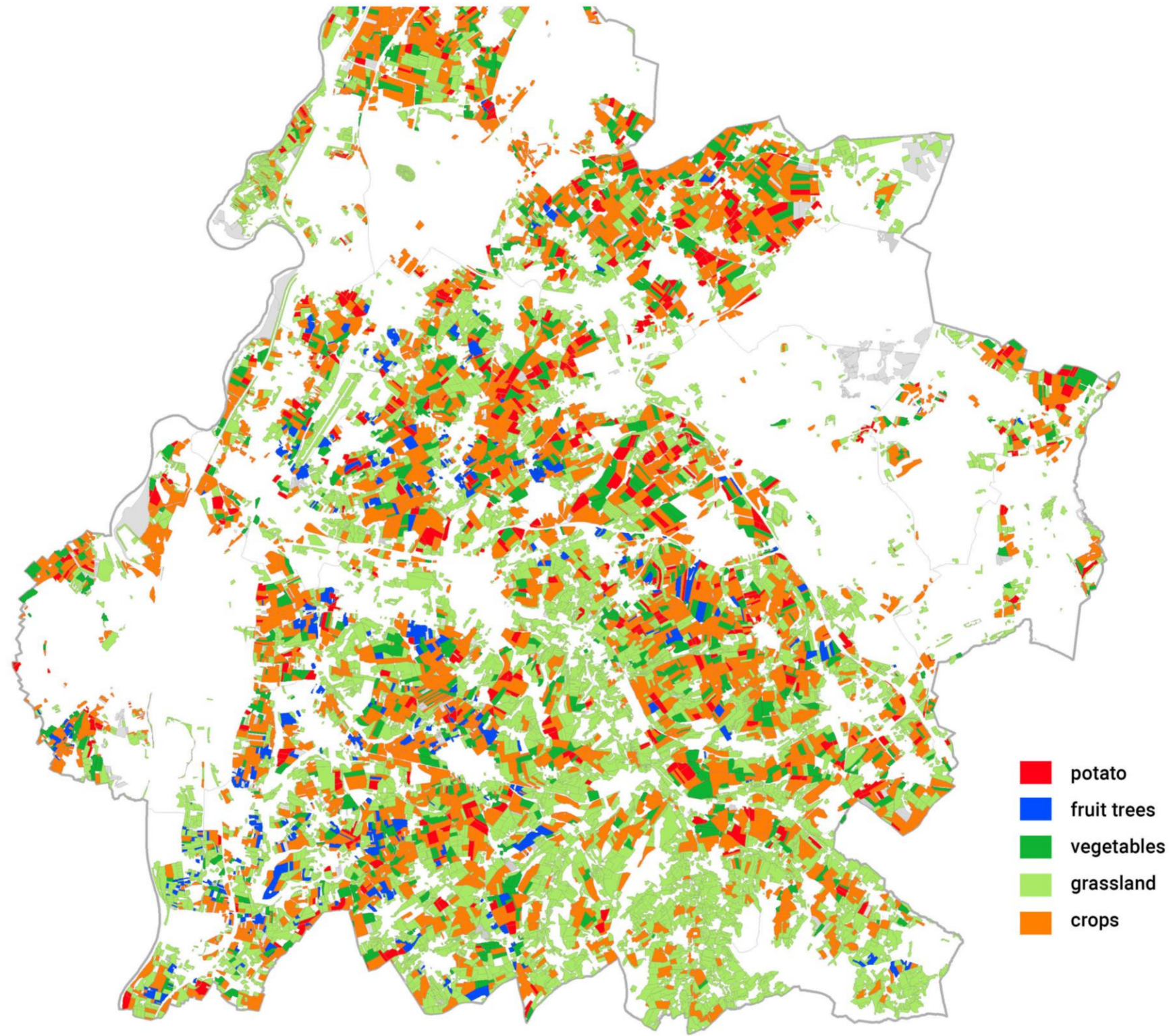
FORESTS, HILLS AND
STREAMS OF EXCEP-
TIONAL QUALITY



CLOSING OF MINING INDUSTRY IN 60'S



LACK OF **ECONOMIC** AND **SOCIAL OPPORTUNITIES**



AGRICULTURE IS DOMINATING THE LANDSCAPE WITH **60% LANDUSE**



THE PRODUCTION PROVIDED NOT JUST FOOD BUT ALSO **OCCUPATION, A SENSE OF BELONGING** AND THE FEELING OF BEING PART OF **A COMMUNITY**



33% OF FOOD GOES TO **WASTE** EVERY YEAR.



VEGETABLES TRAVEL AN AVERAGE OF **2400 KM** FROM FARM TO CONSUMER



MANURE, AMMONIA, CO2 EMISSION AND PESTICIDES END UP IN THE ENVIRONMENT.



CURRENT METHODS ARE NOT FIT TO REACH CLIMATE GOALS



DEFORESTATION AS A RESULT OF AGRICULTURAL METHODS

UNITED NATIONS SCIENTIST WARN:
DESTRUCTION OF NATURE AS DANGEROUS AS CLIMATE CHANGE

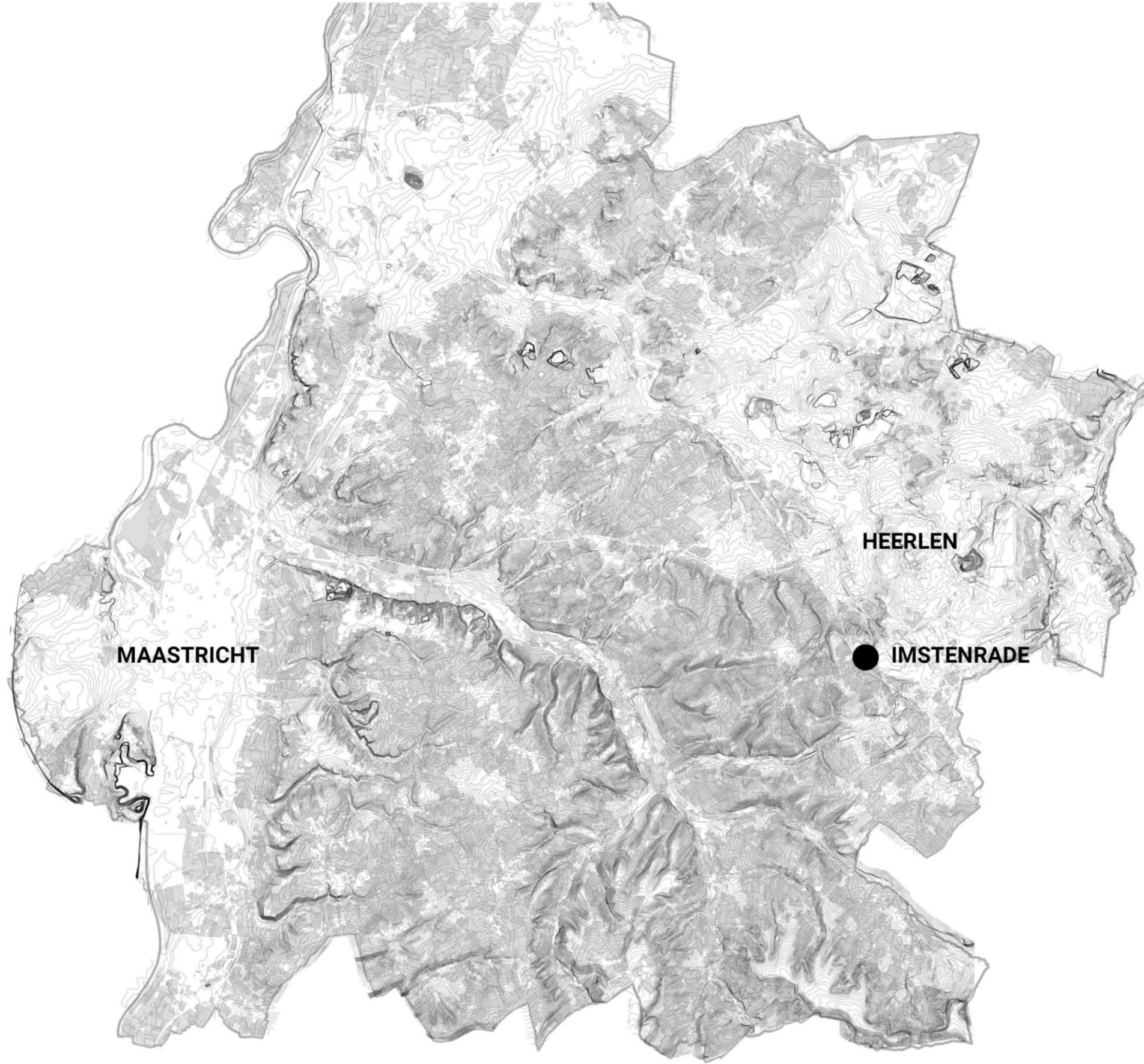


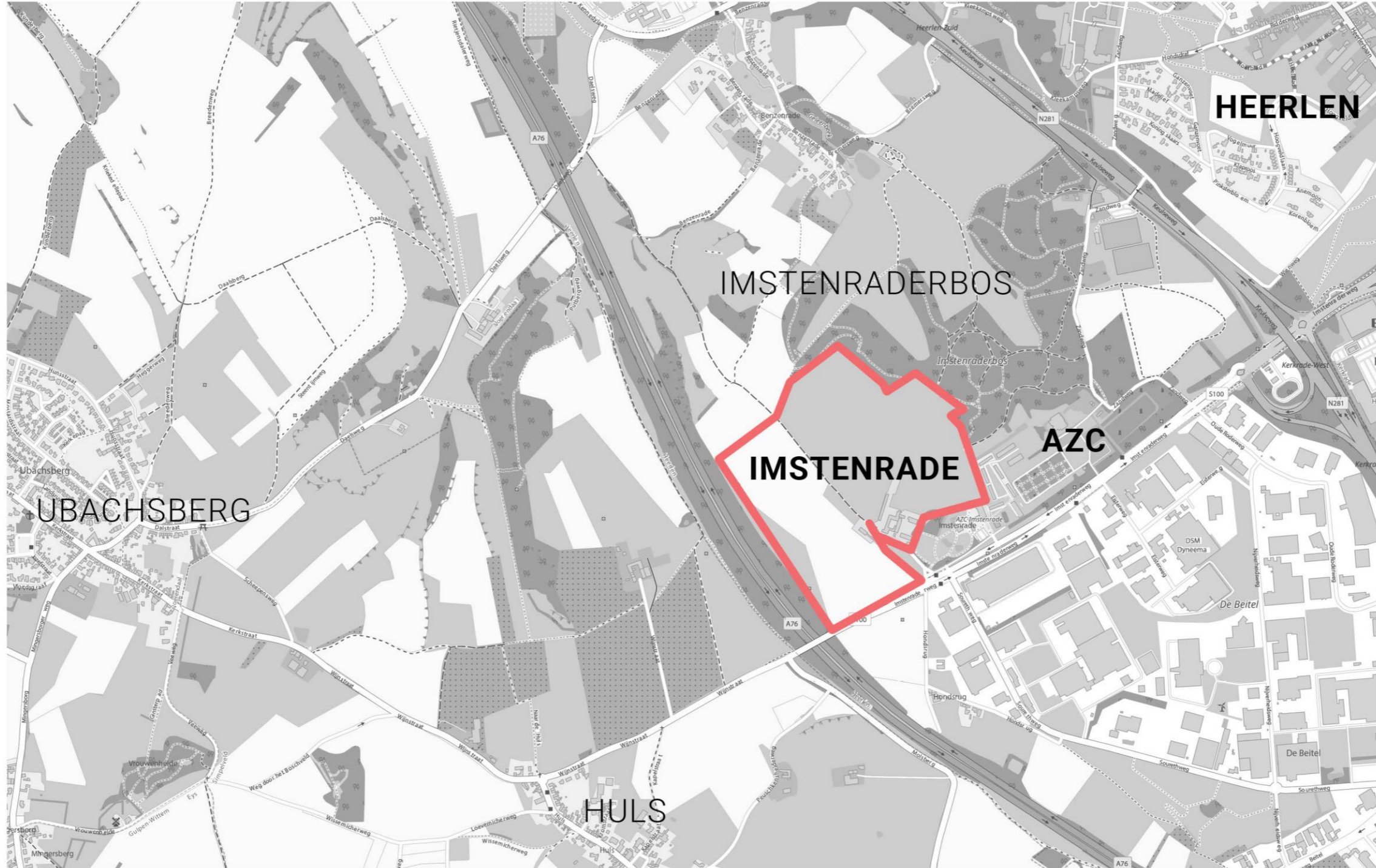
FOOD INDUSTRY IS CALLING FOR **SMARTER AND MORE RESILIENT SOLUTIONS.**

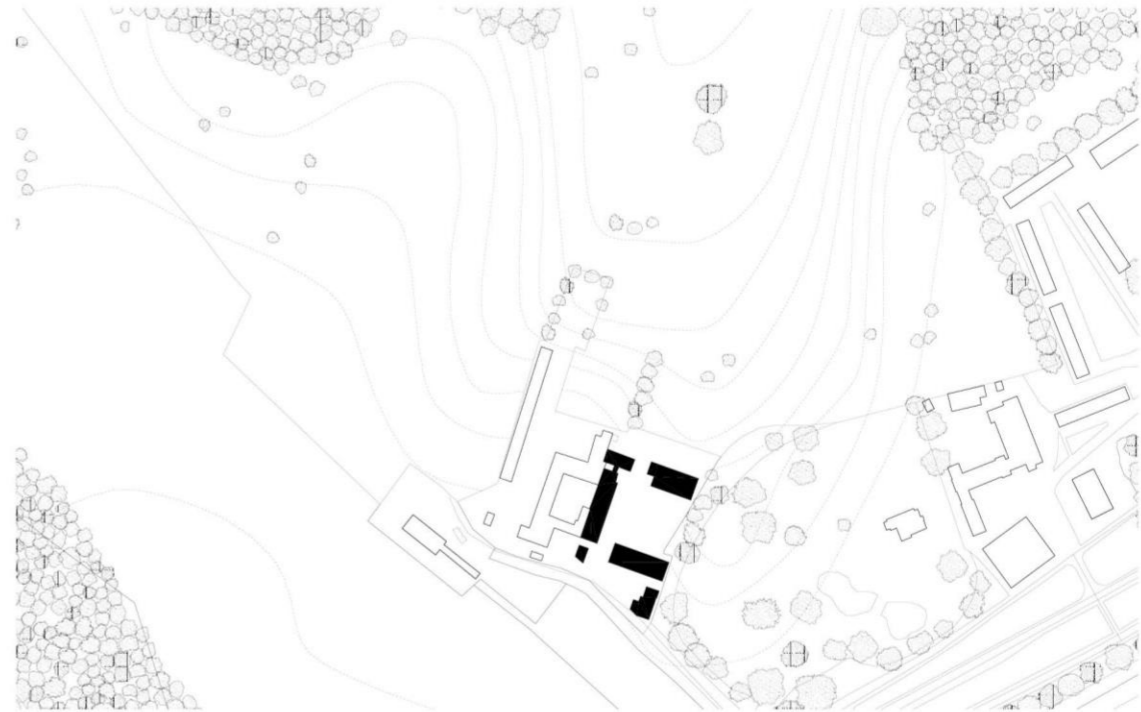


EXPERIENCE GROWING OF OUR FOOD, ENGAGE WITH TOURISM, PARTICIPATION AND LOCAL PRODUCTION

CONTRIBUTE TO **ECONOMIC SITUATION, SOCIAL STABILITY AND RECONNECT TO NATURE.**





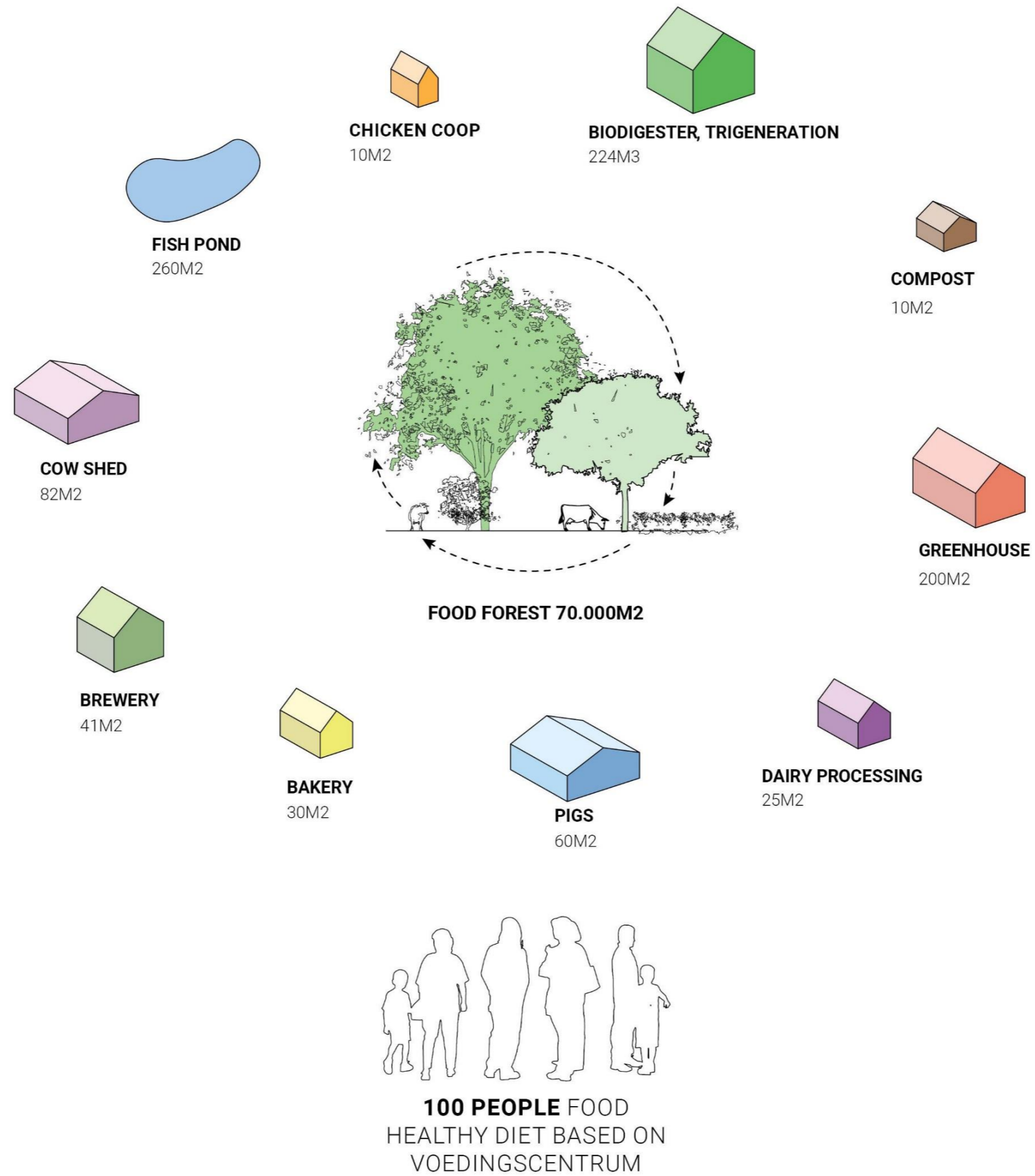


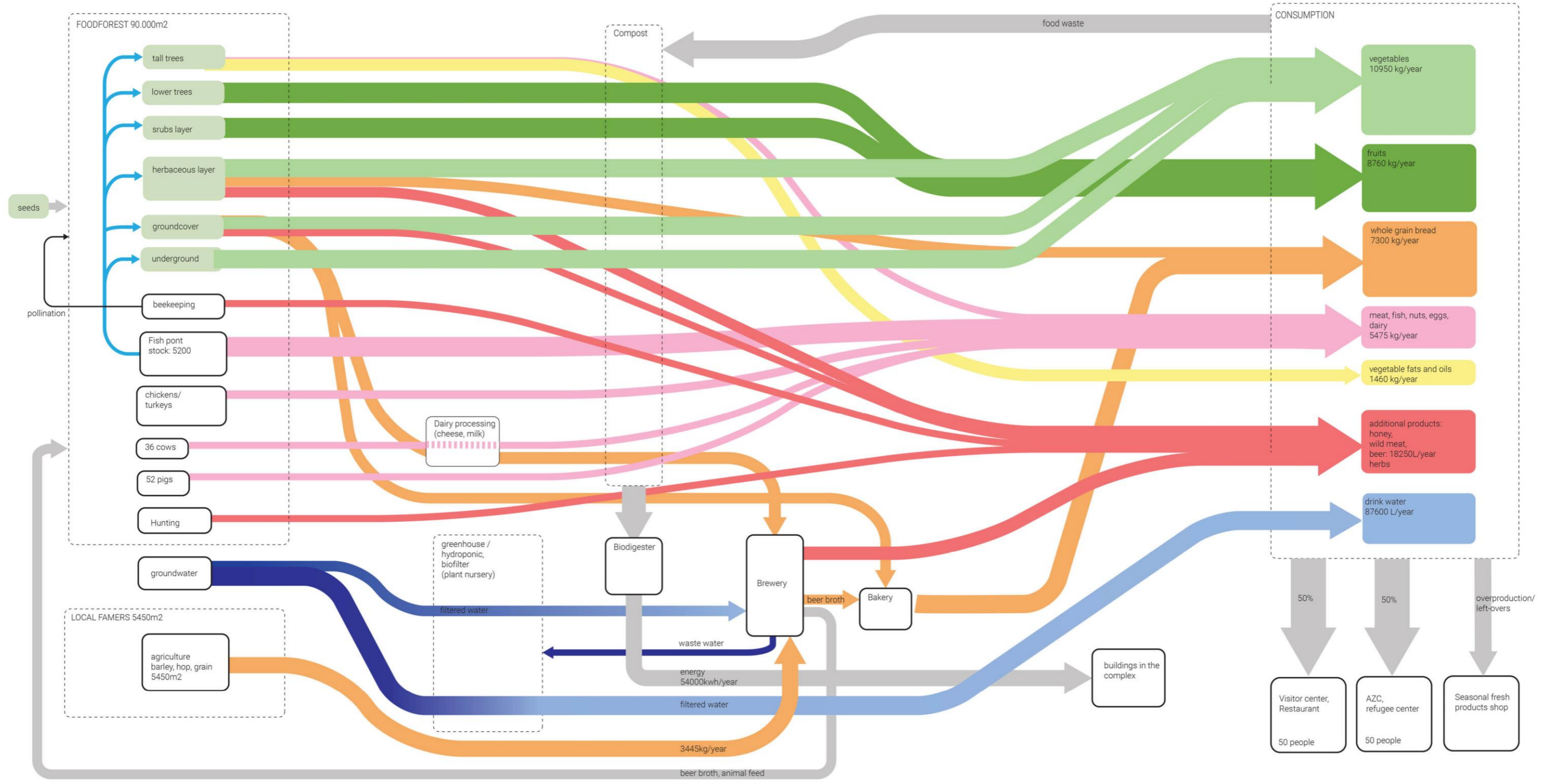


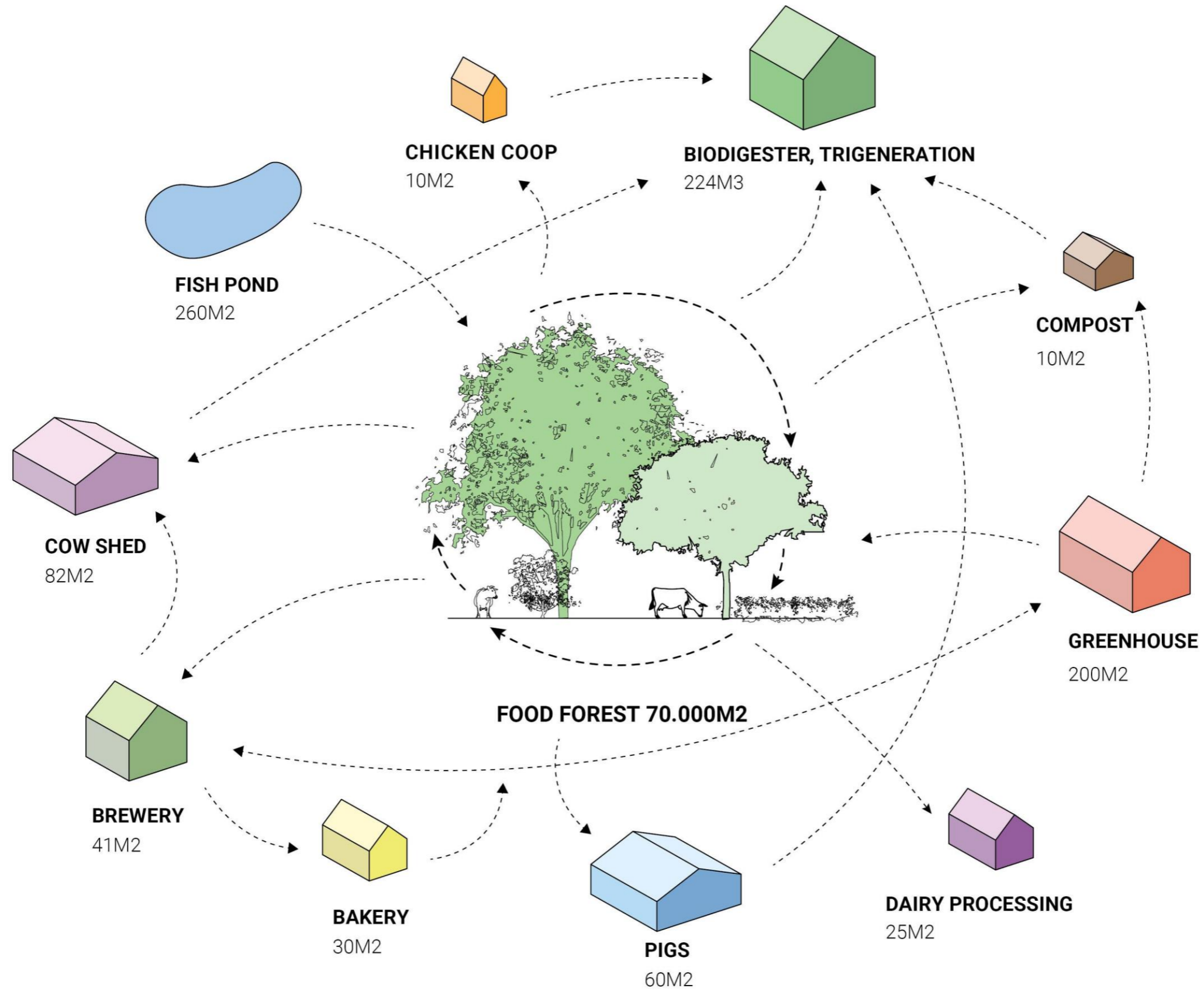
FOOD FOREST (KETELBROEK, THE NETHERLANDS)



FOOD FOREST 70.000M2

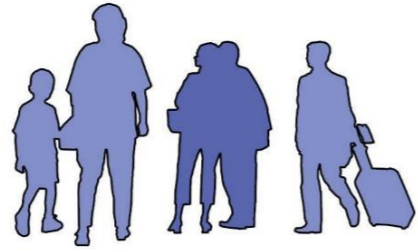






SECURING SUPPLY AND SUSTAINABILITY ON SITE, **CLEAN ENERGY, FRESH HEALTHY FOOD & WATER**

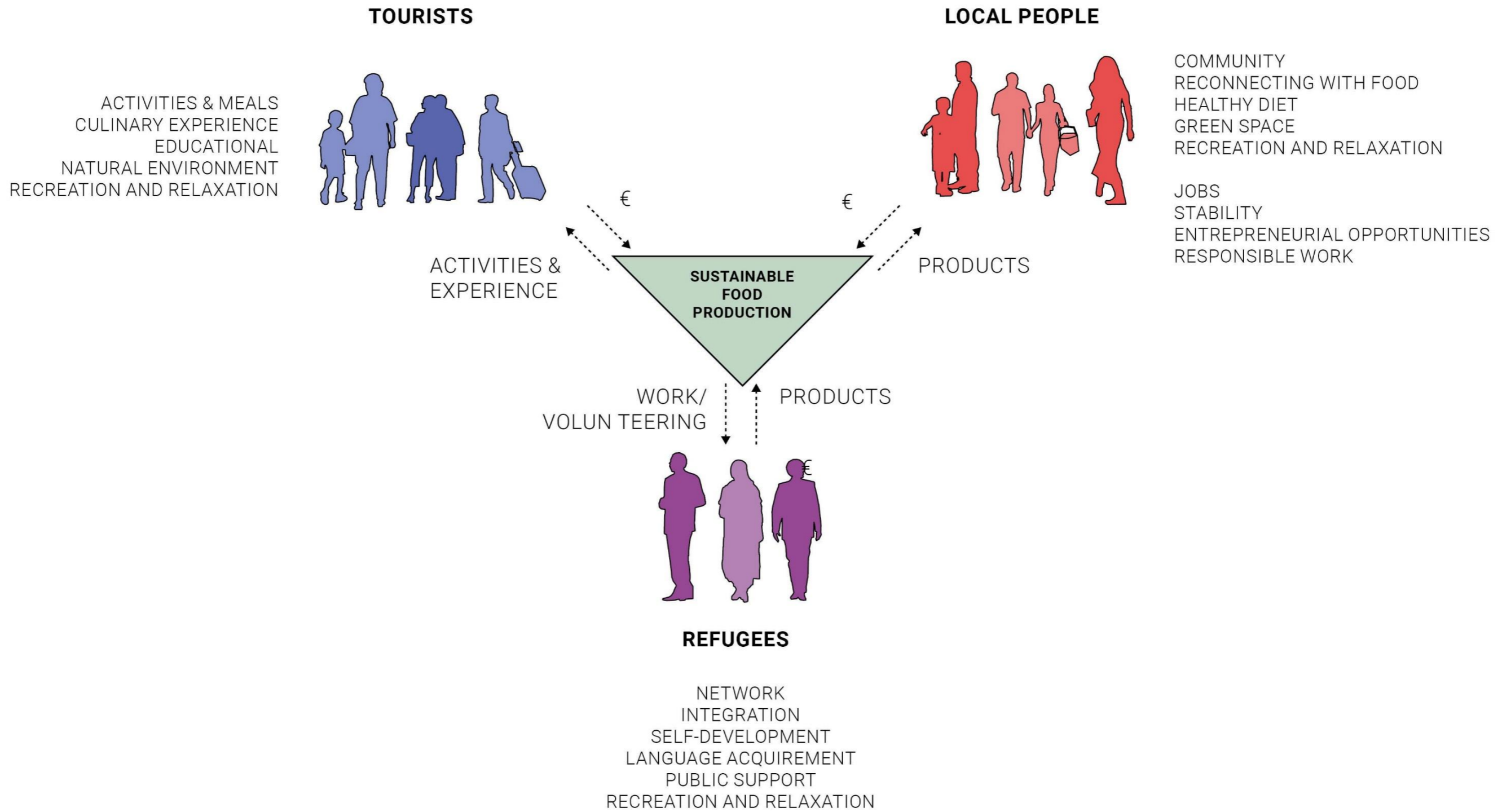
TOURISTS

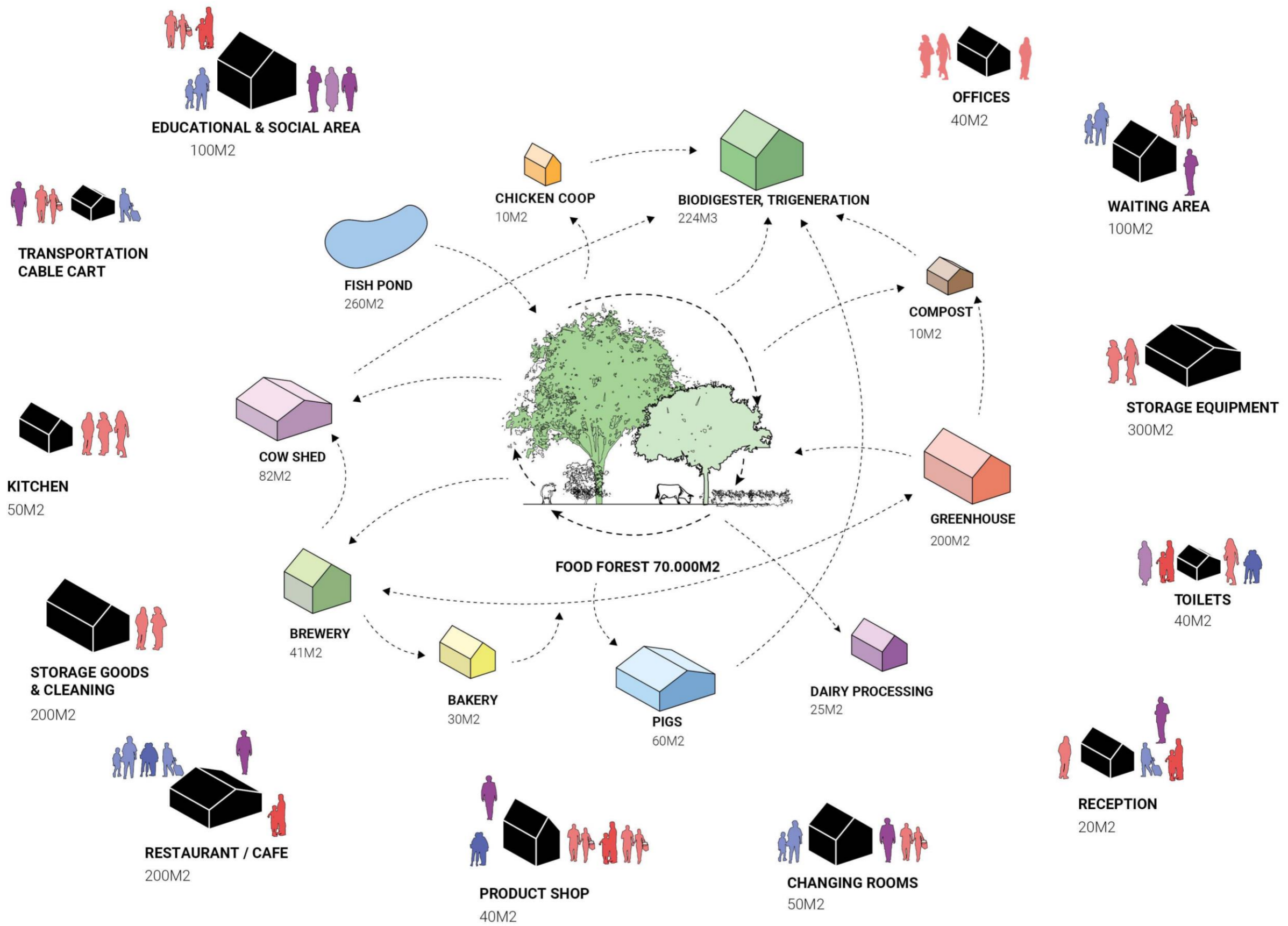


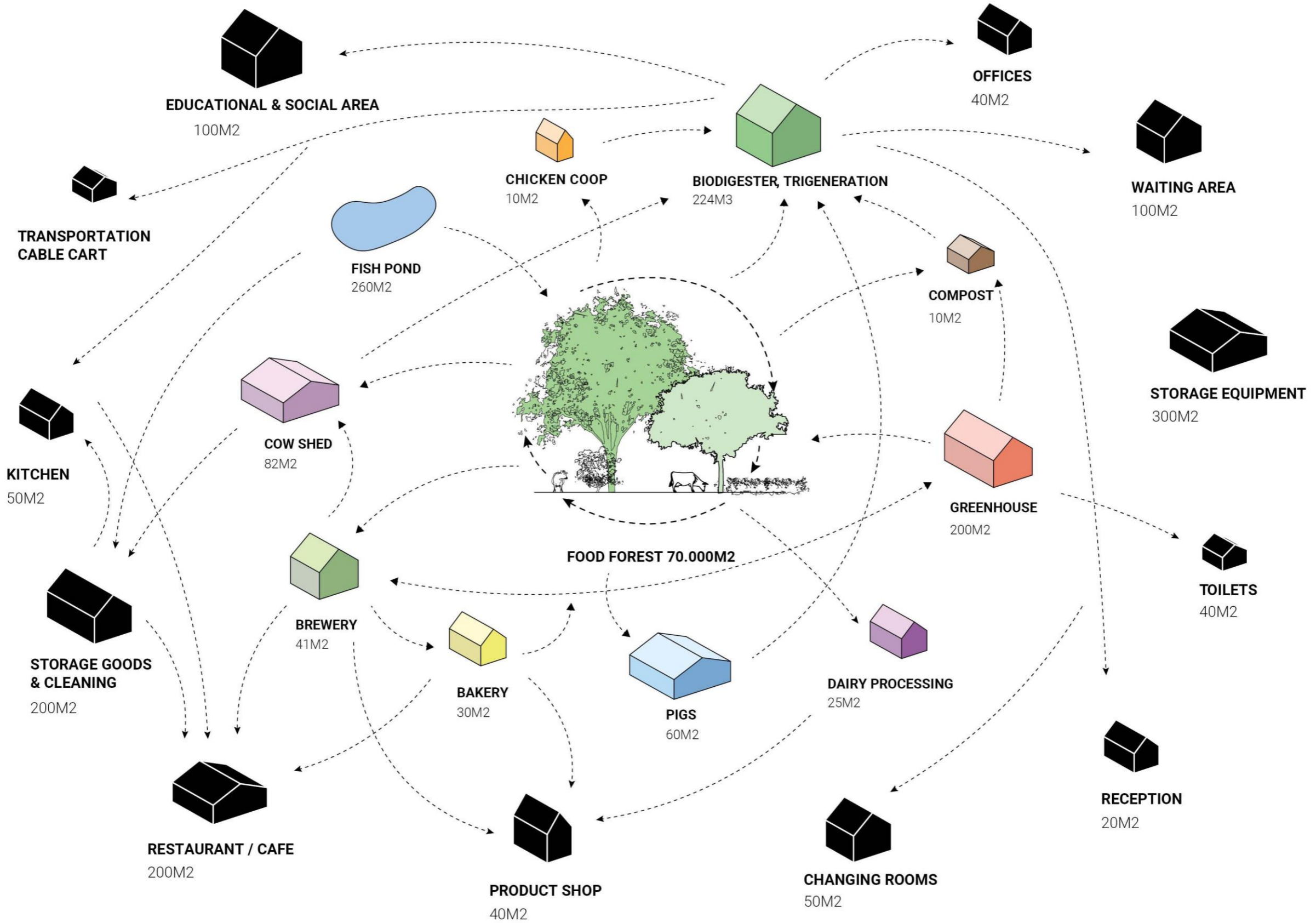
LOCAL PEOPLE

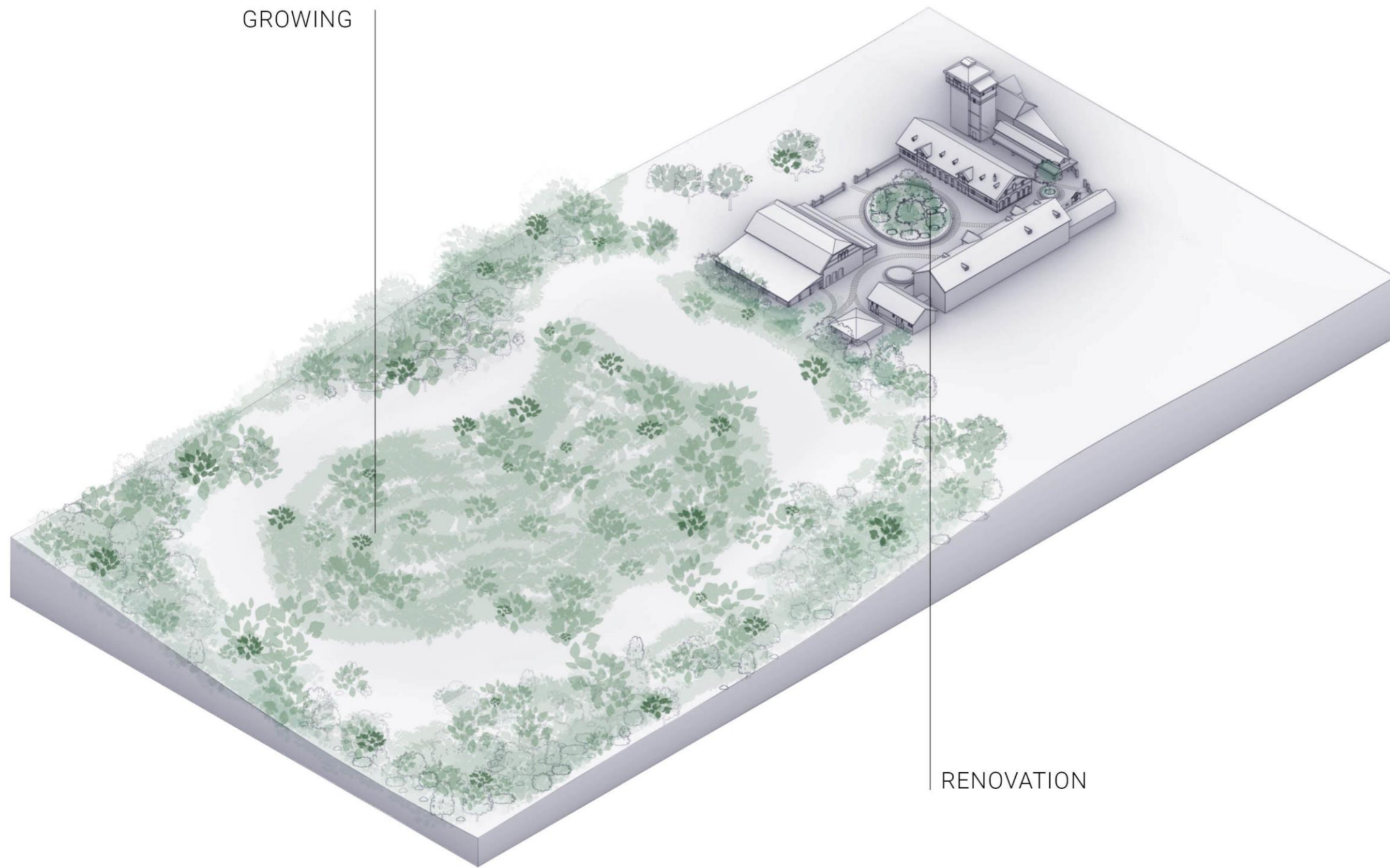


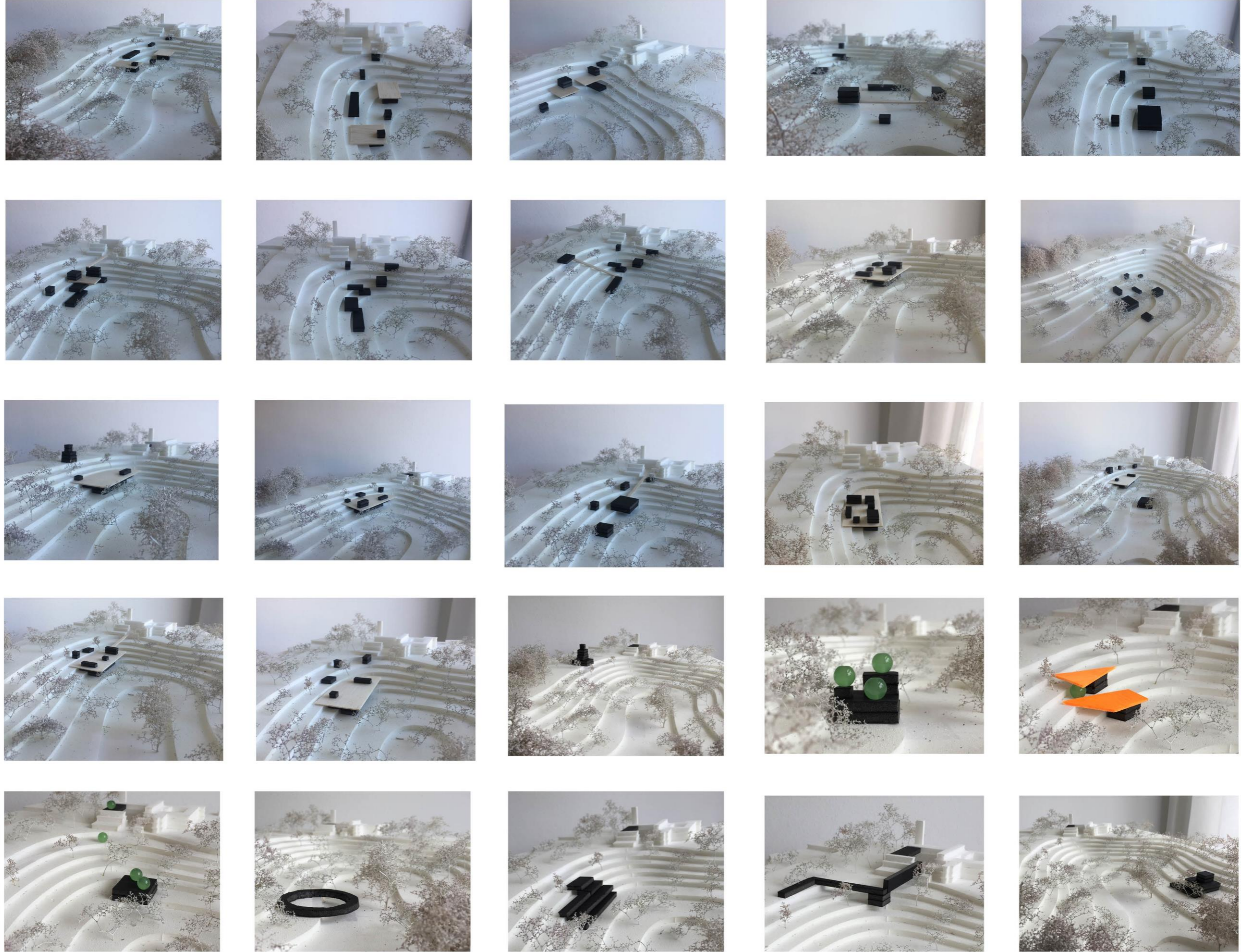
REFUGEES

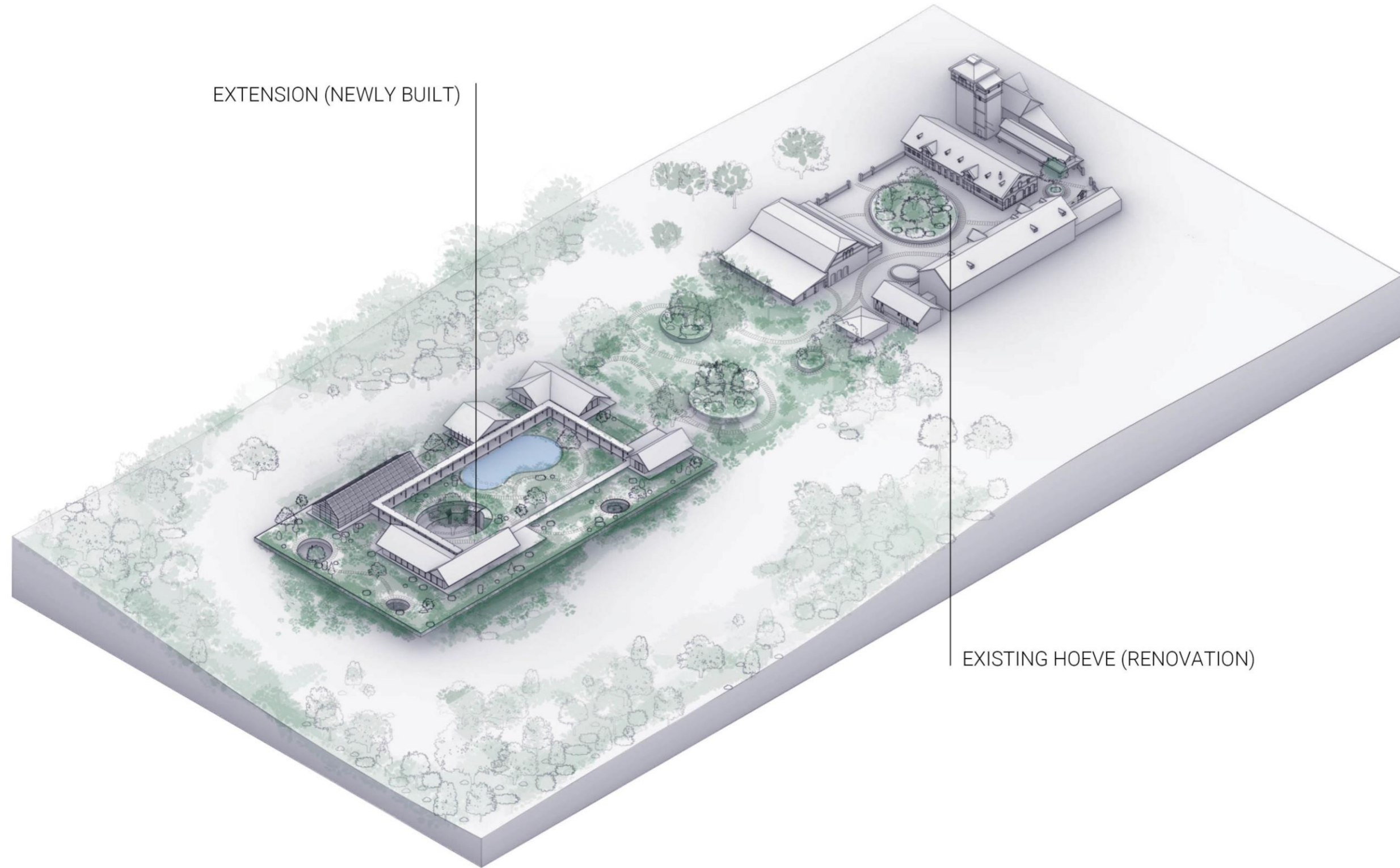






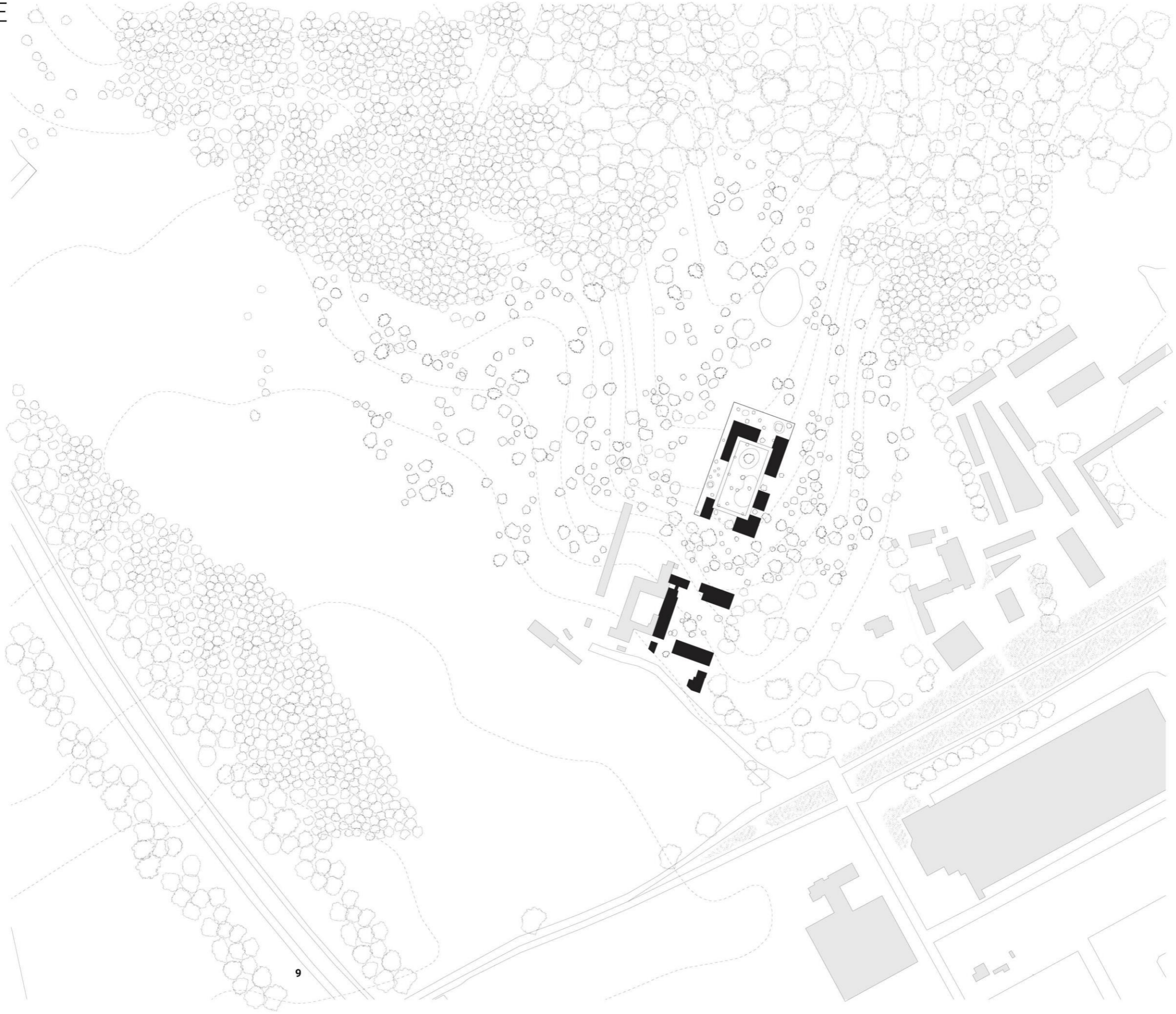




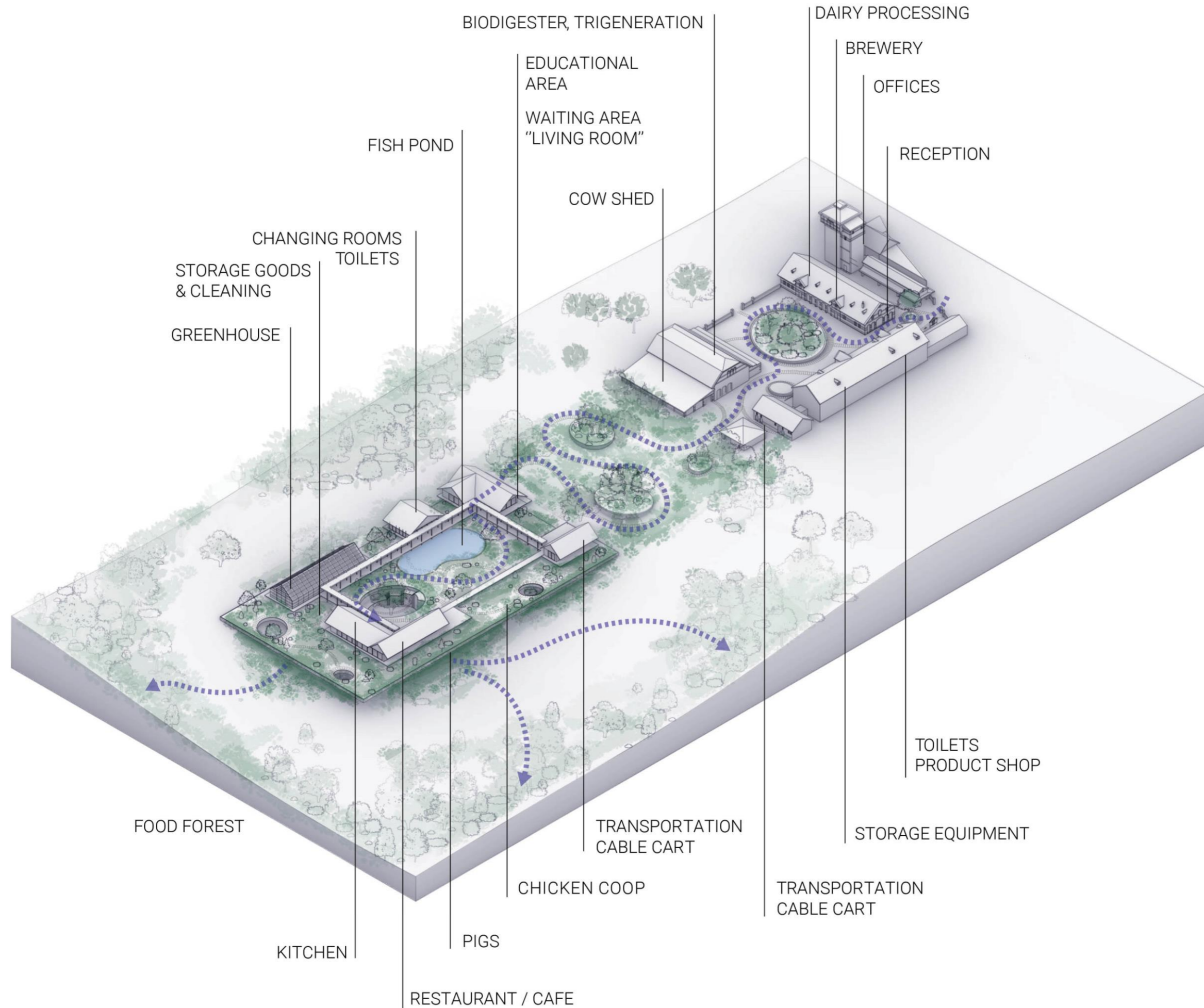


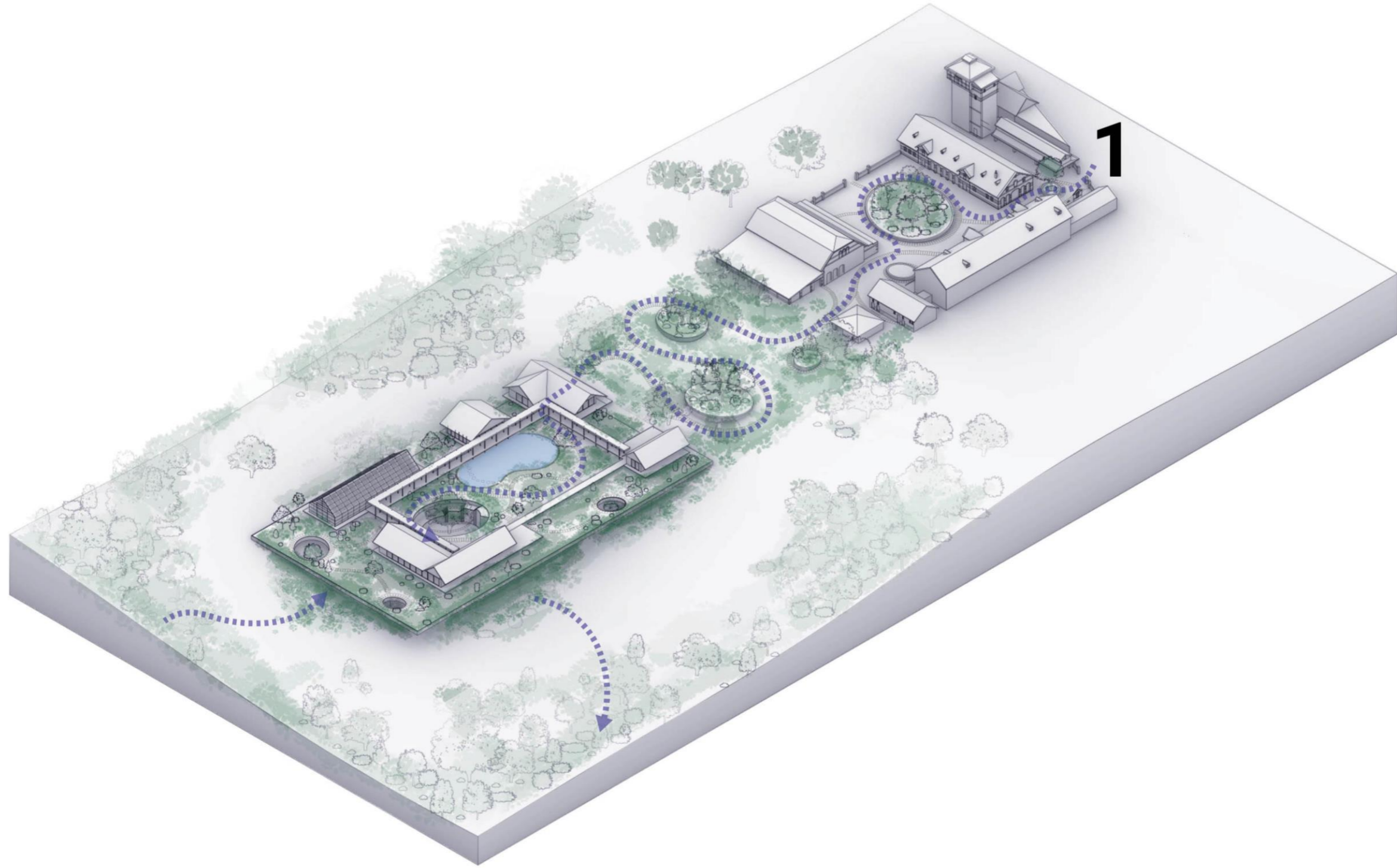
EXTENSION (NEWLY BUILT)

EXISTING HOEVE (RENOVATION)

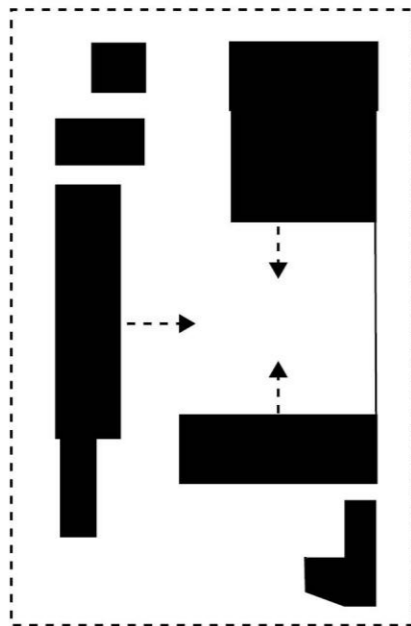


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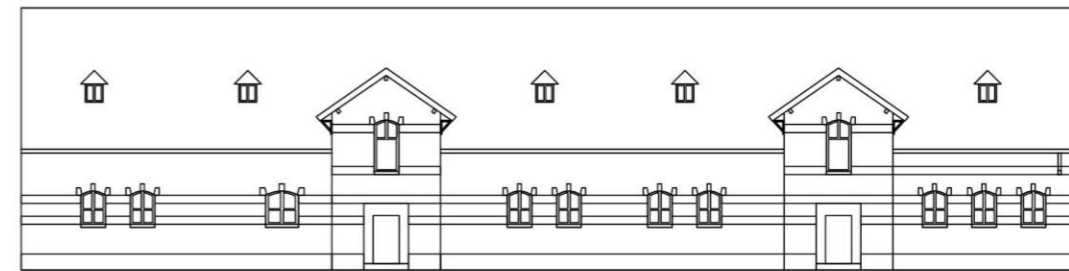








REVIVAL OF A MONUMENT
 EXISTING MONUMENT,
 PRODUCTION PROCESSES,

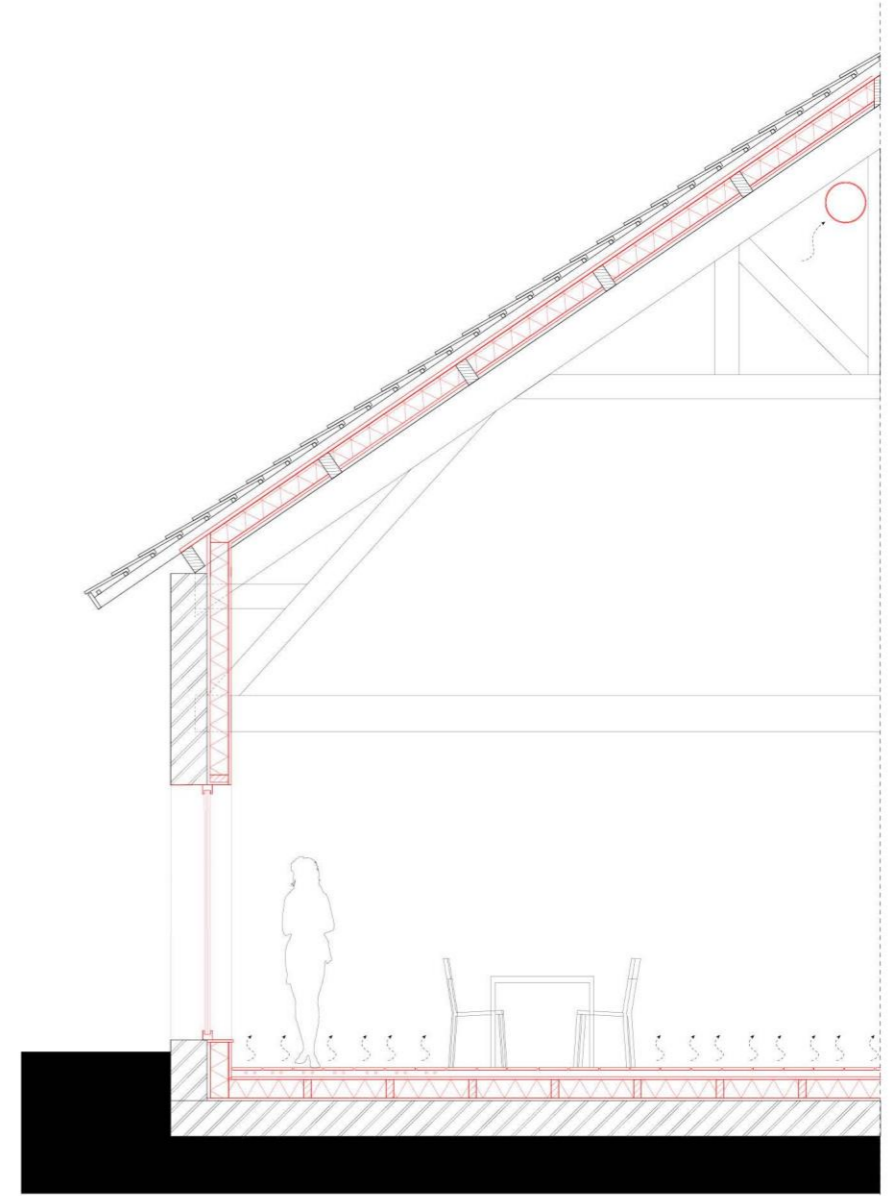


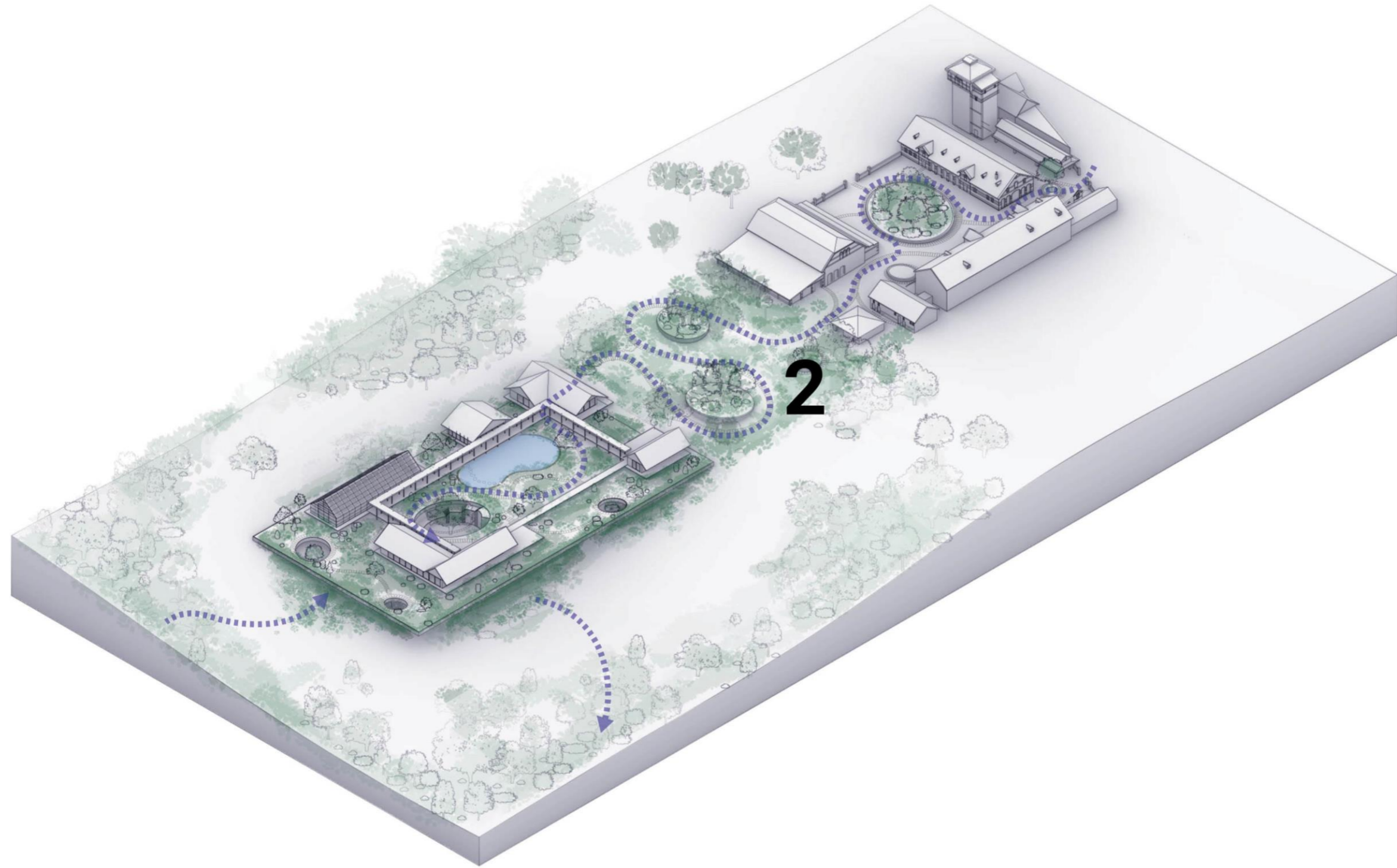
EXISTING FACADE



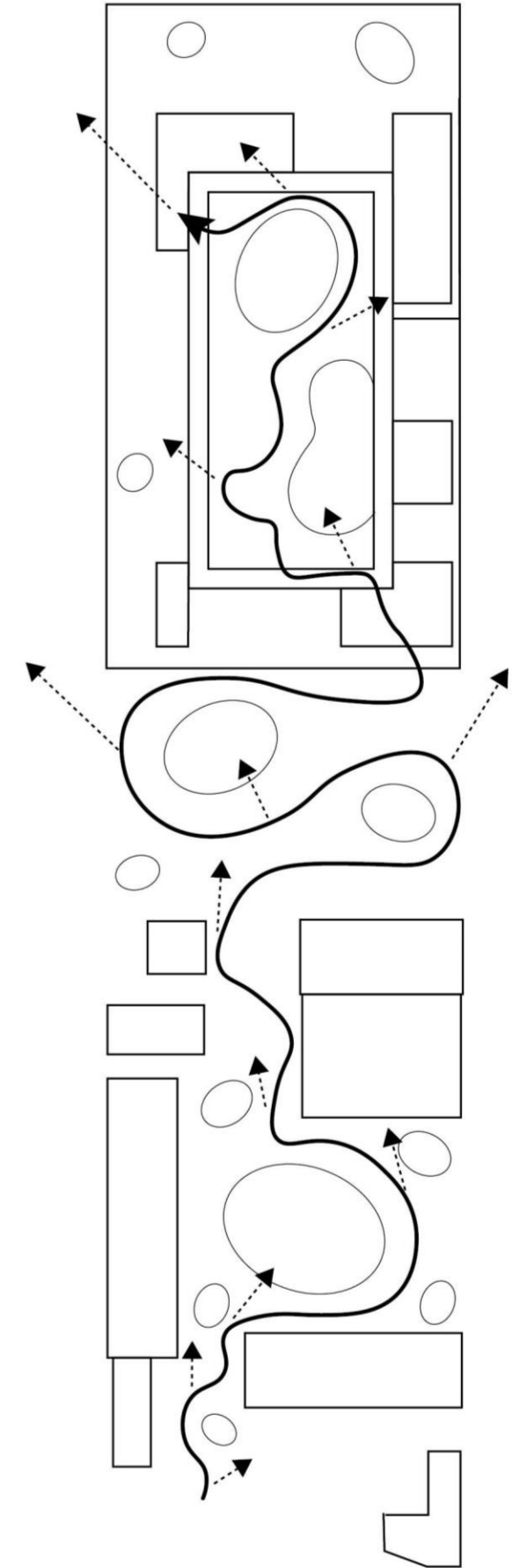
NEW FACADE





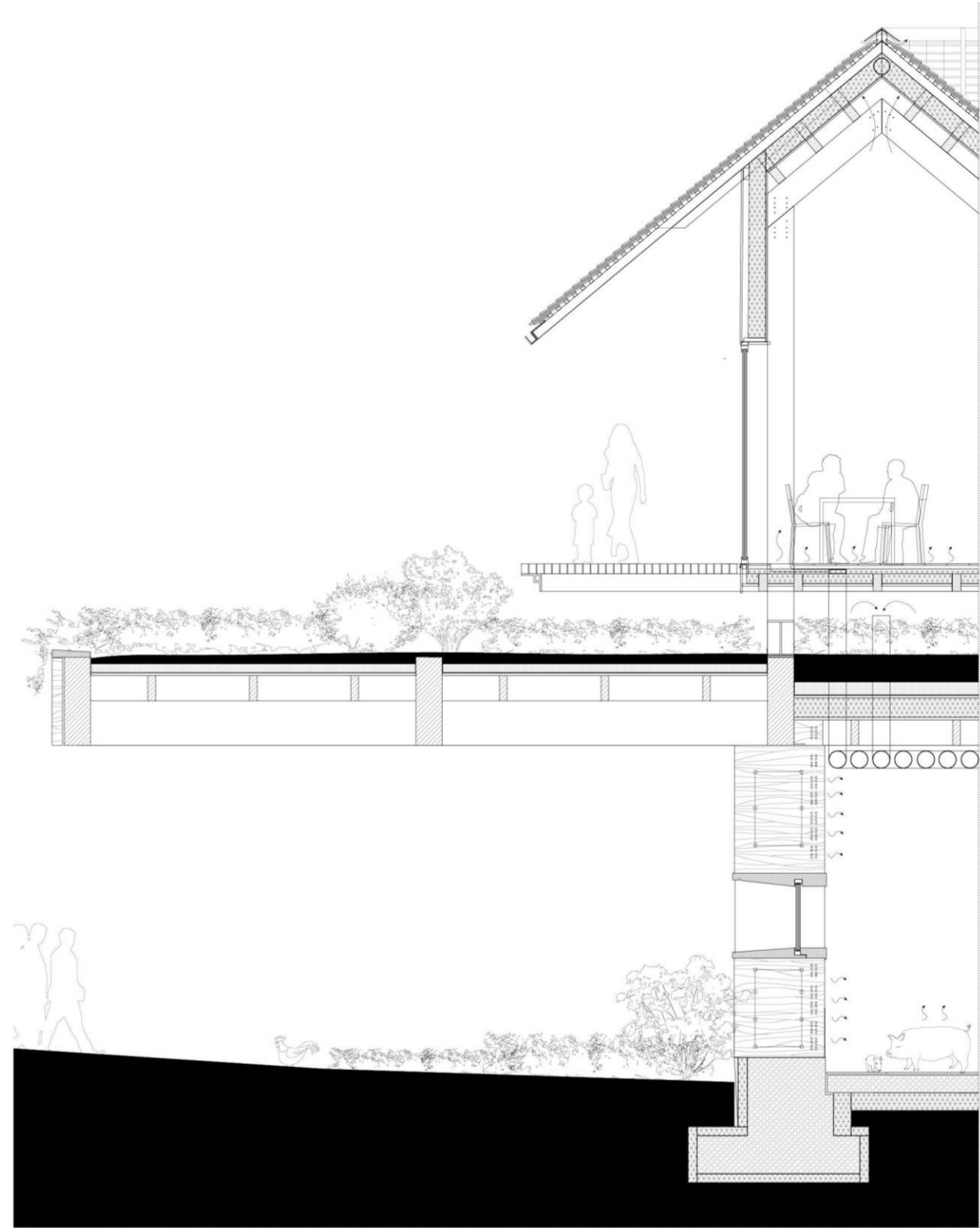


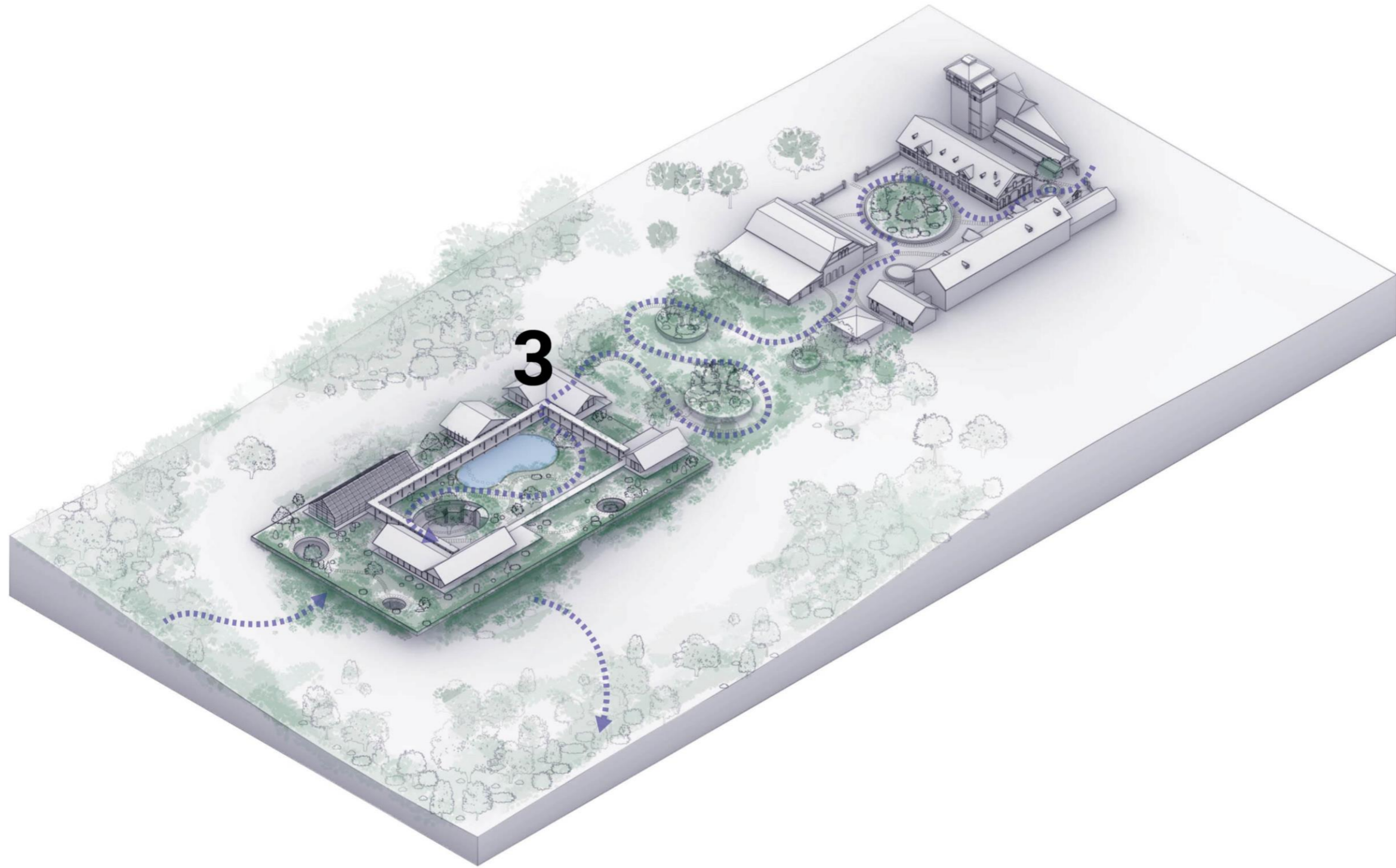




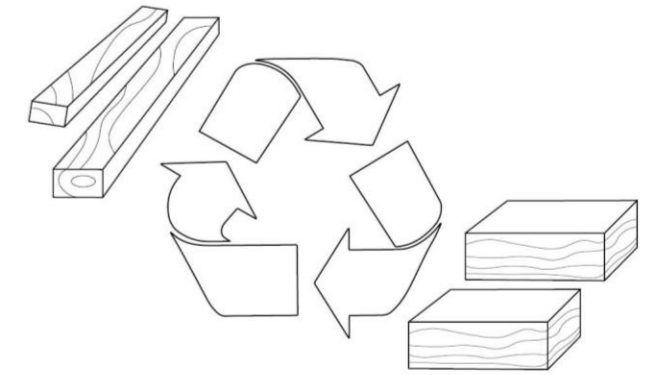


MATERIAL CHOICE
LOCAL MATERIALS, NATURAL
MATERIALS, AND PRODUCTION
OF MATERIALS

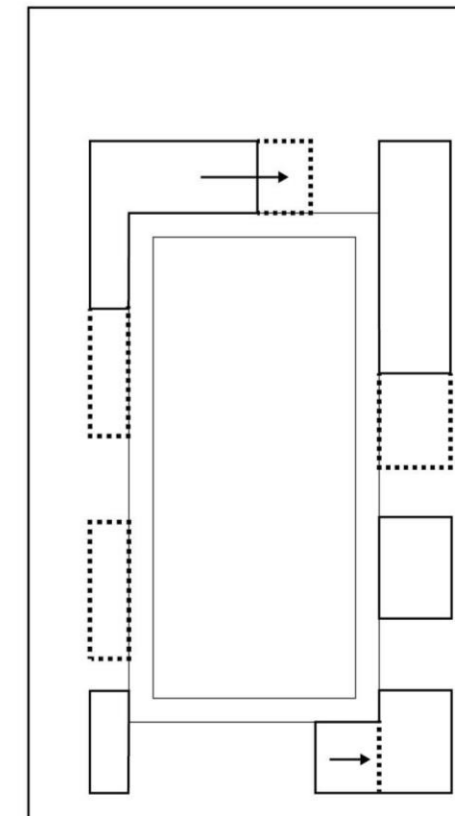




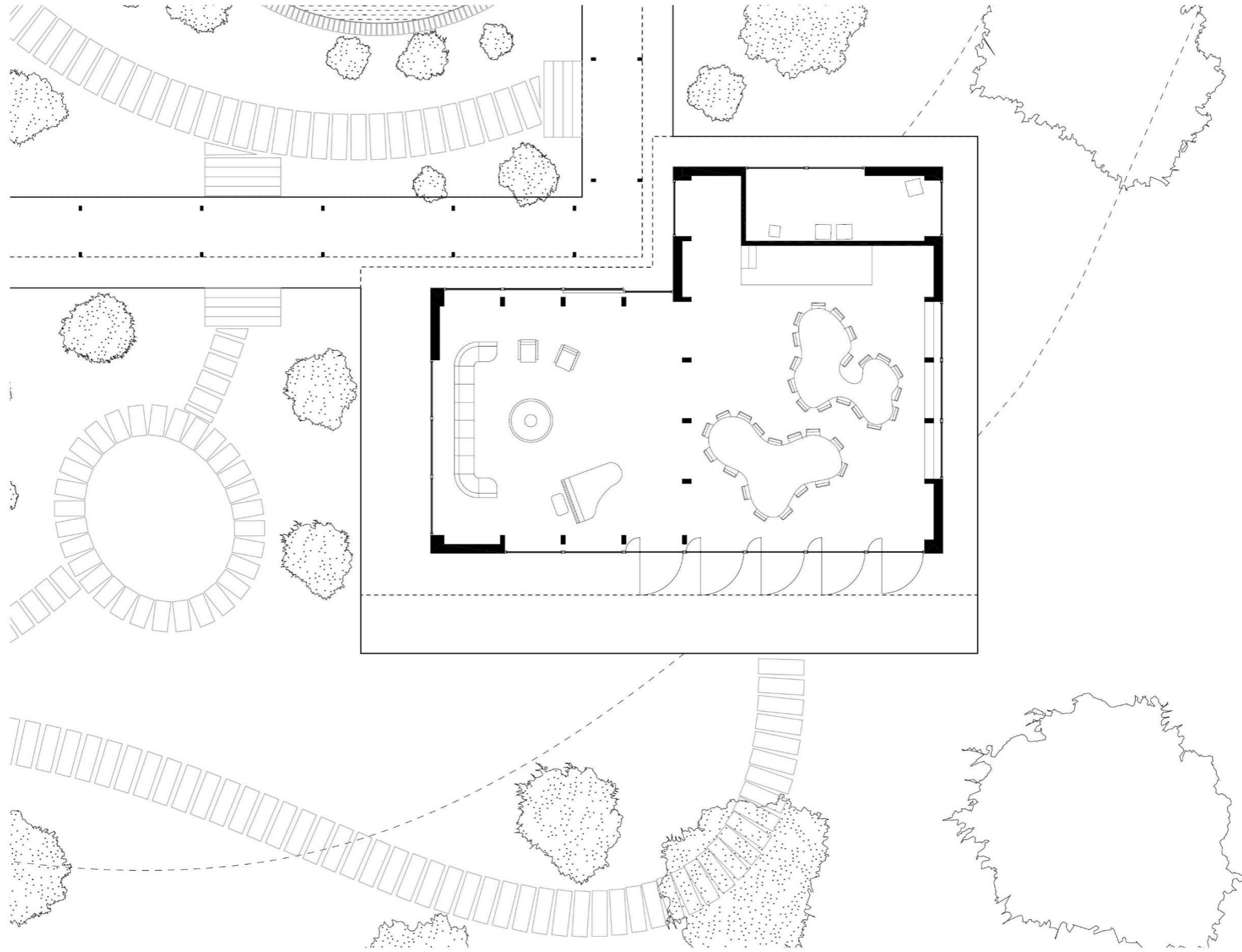


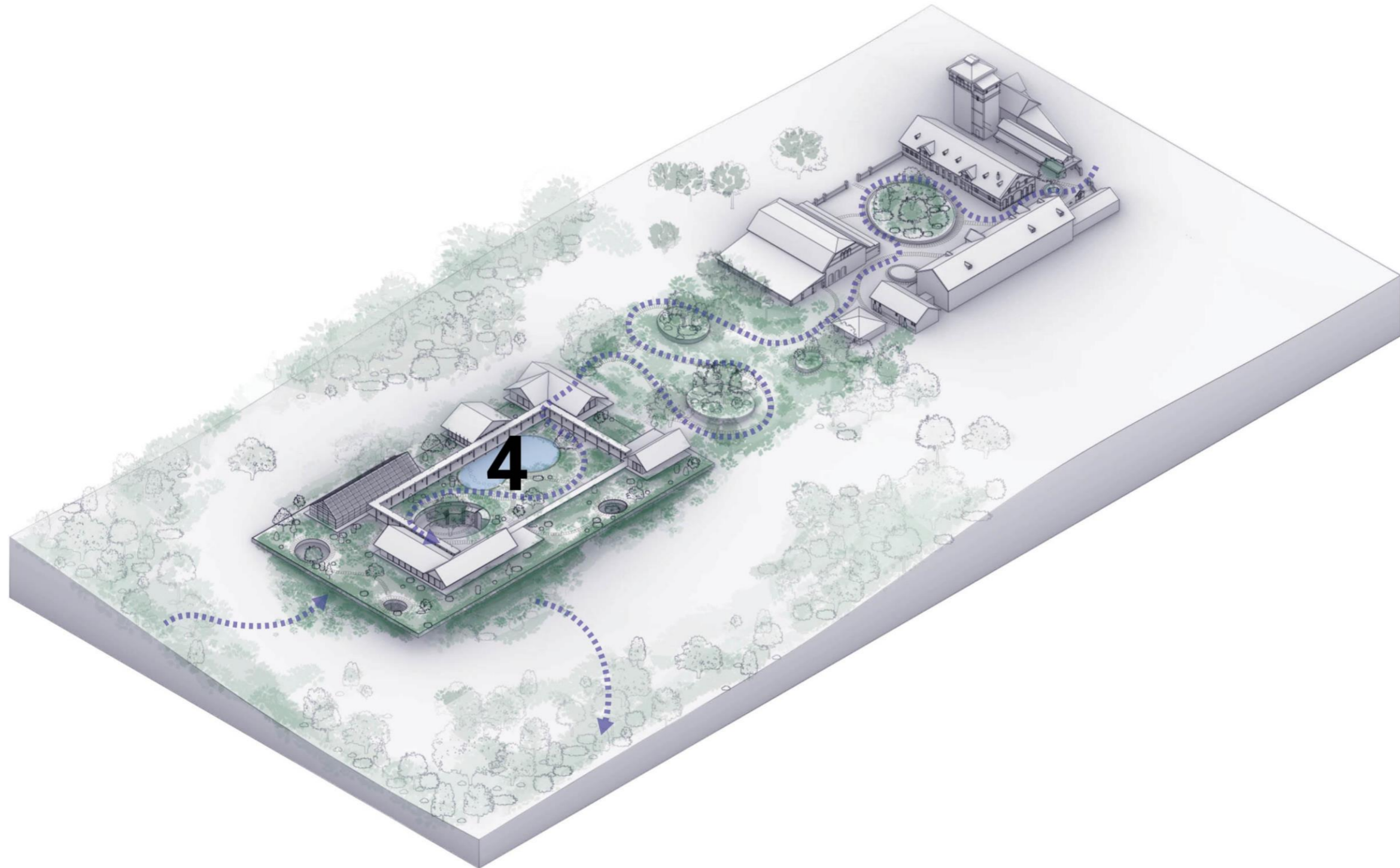


CIRCULAR BUILDING
FLEXIBLE, DEMOUNTABLE
CONSTRUCTION

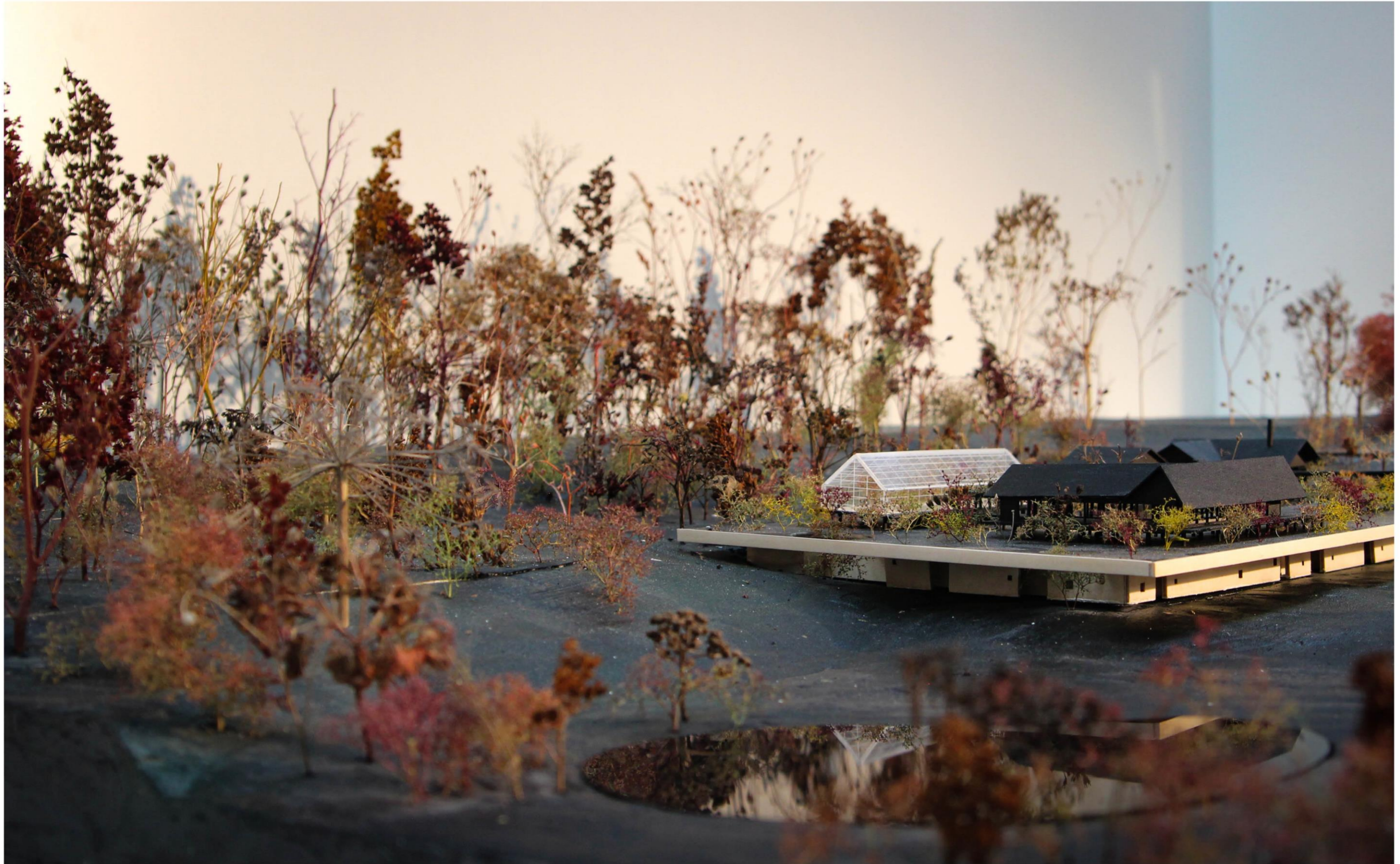


FLEXIBLE LAYOUT STRUCTURE
EXPAND OR SHRINK





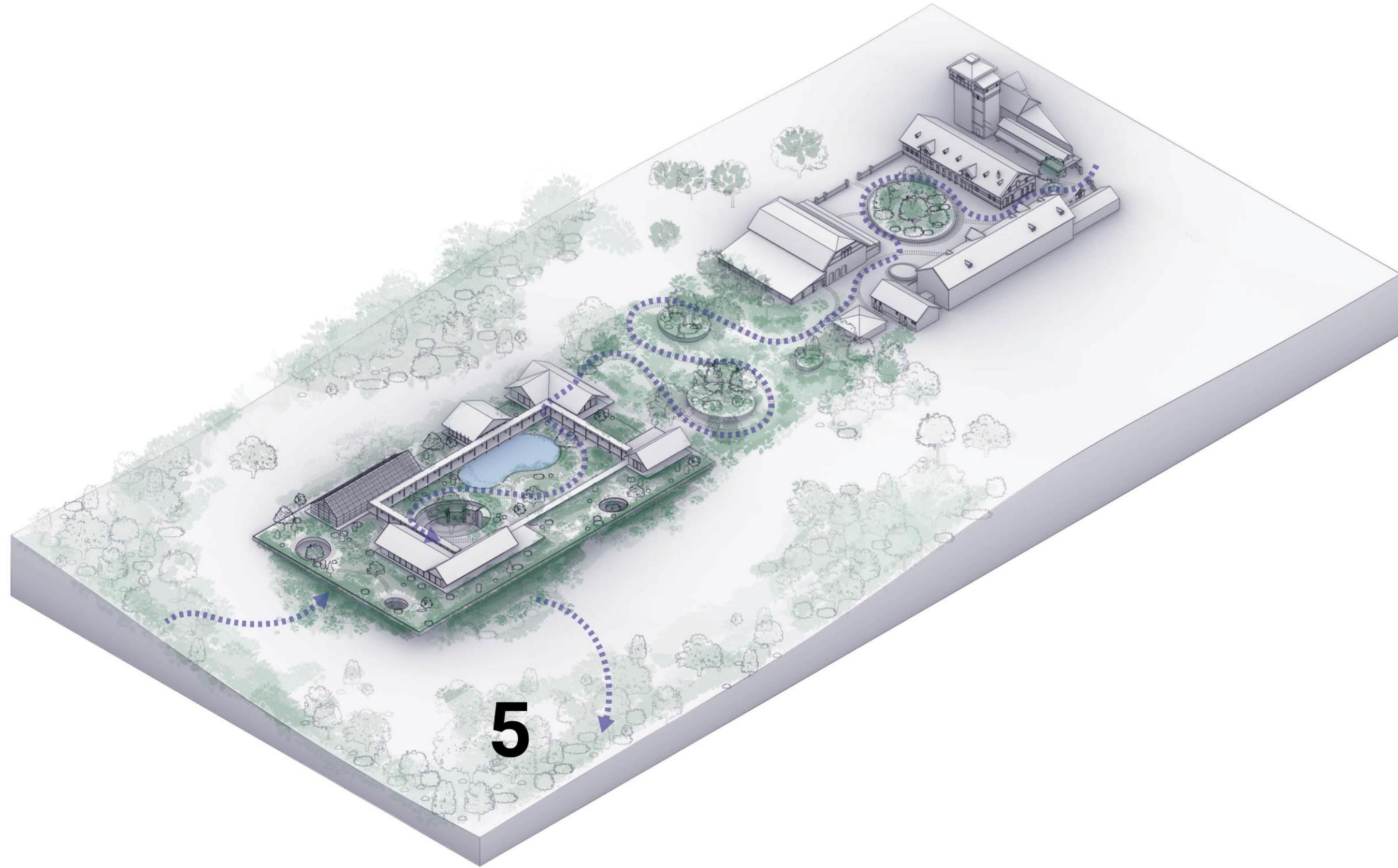






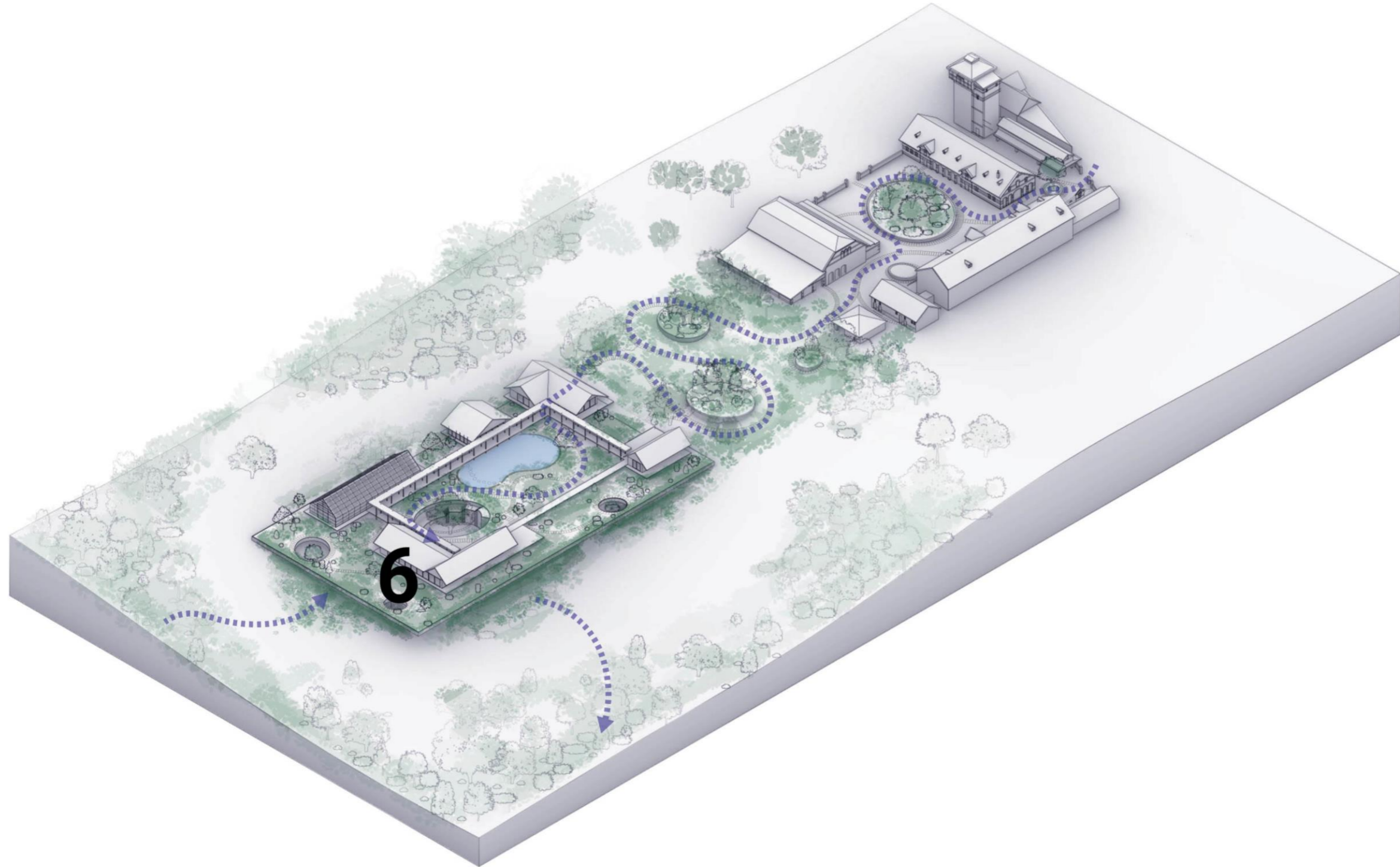
VIEW OVER THE FOREST, SAFE ENVIRONMENT



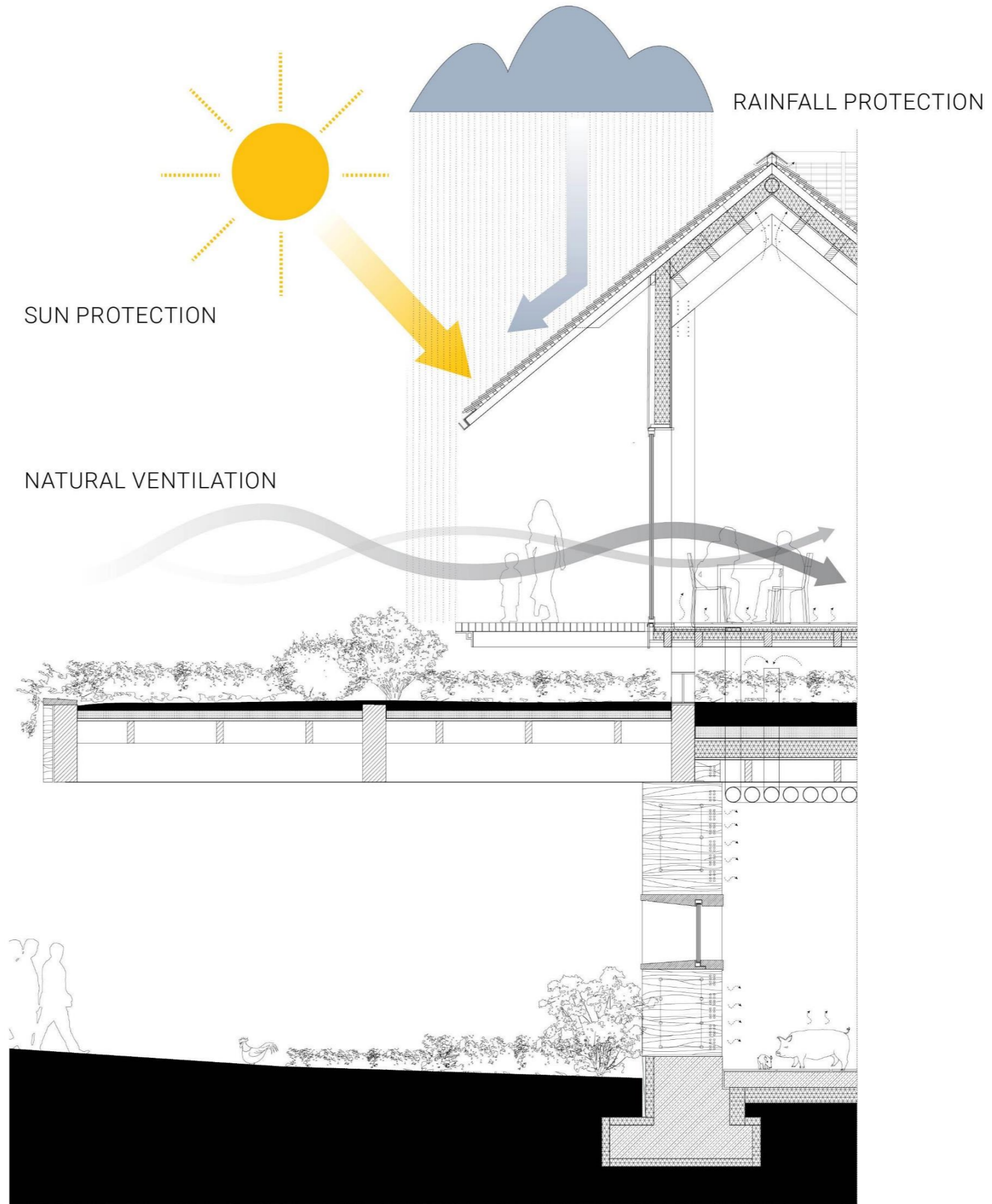


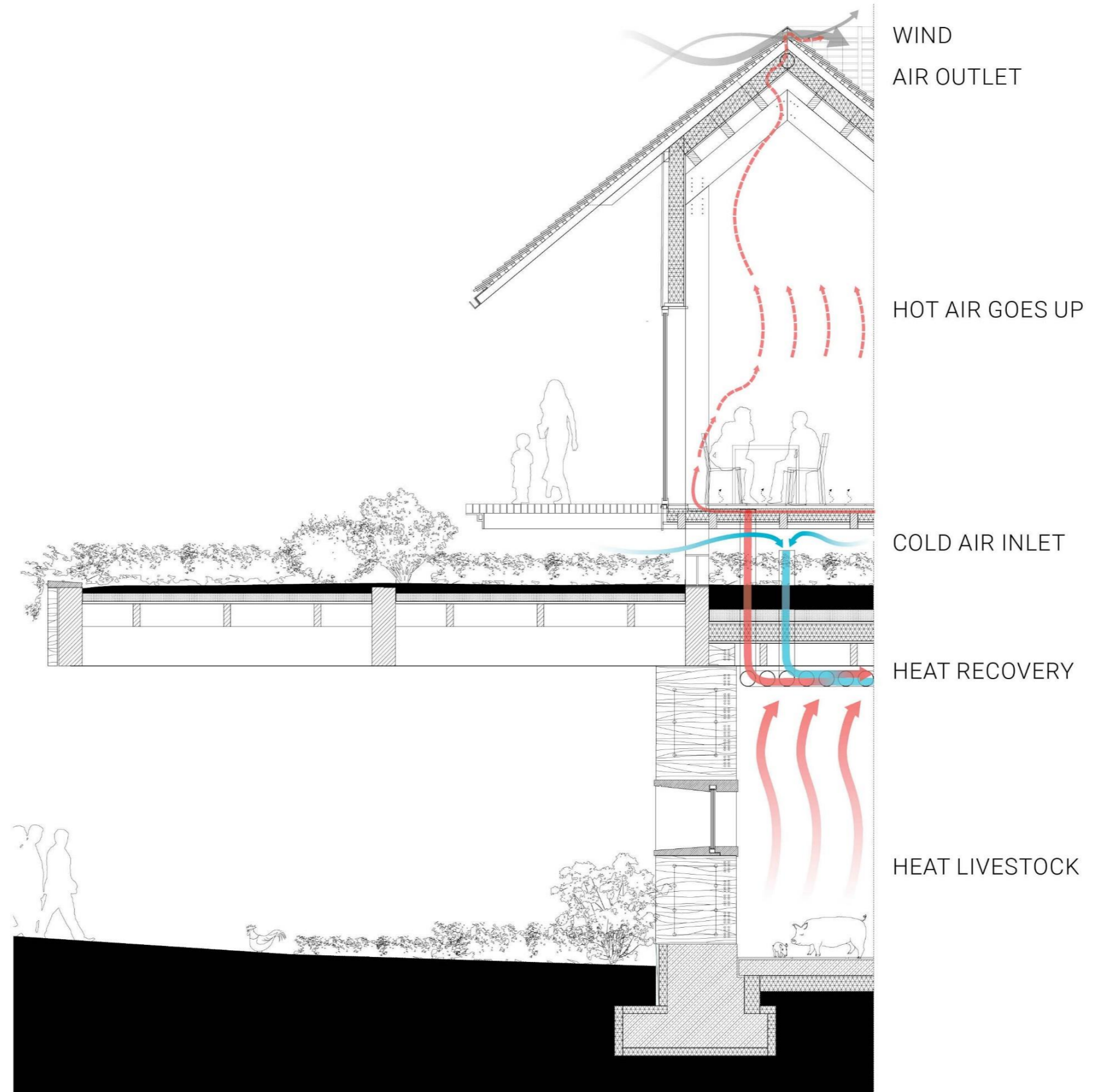


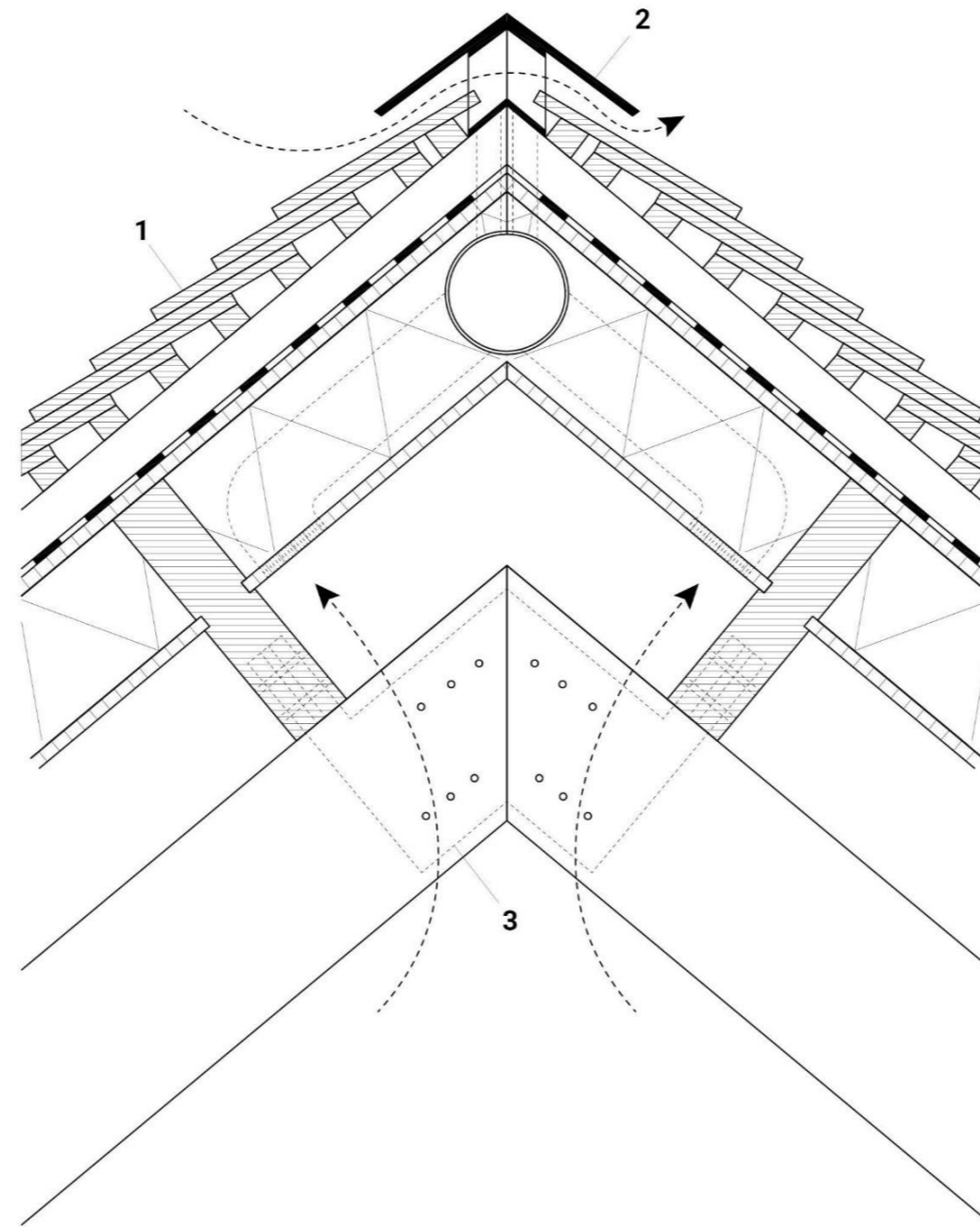






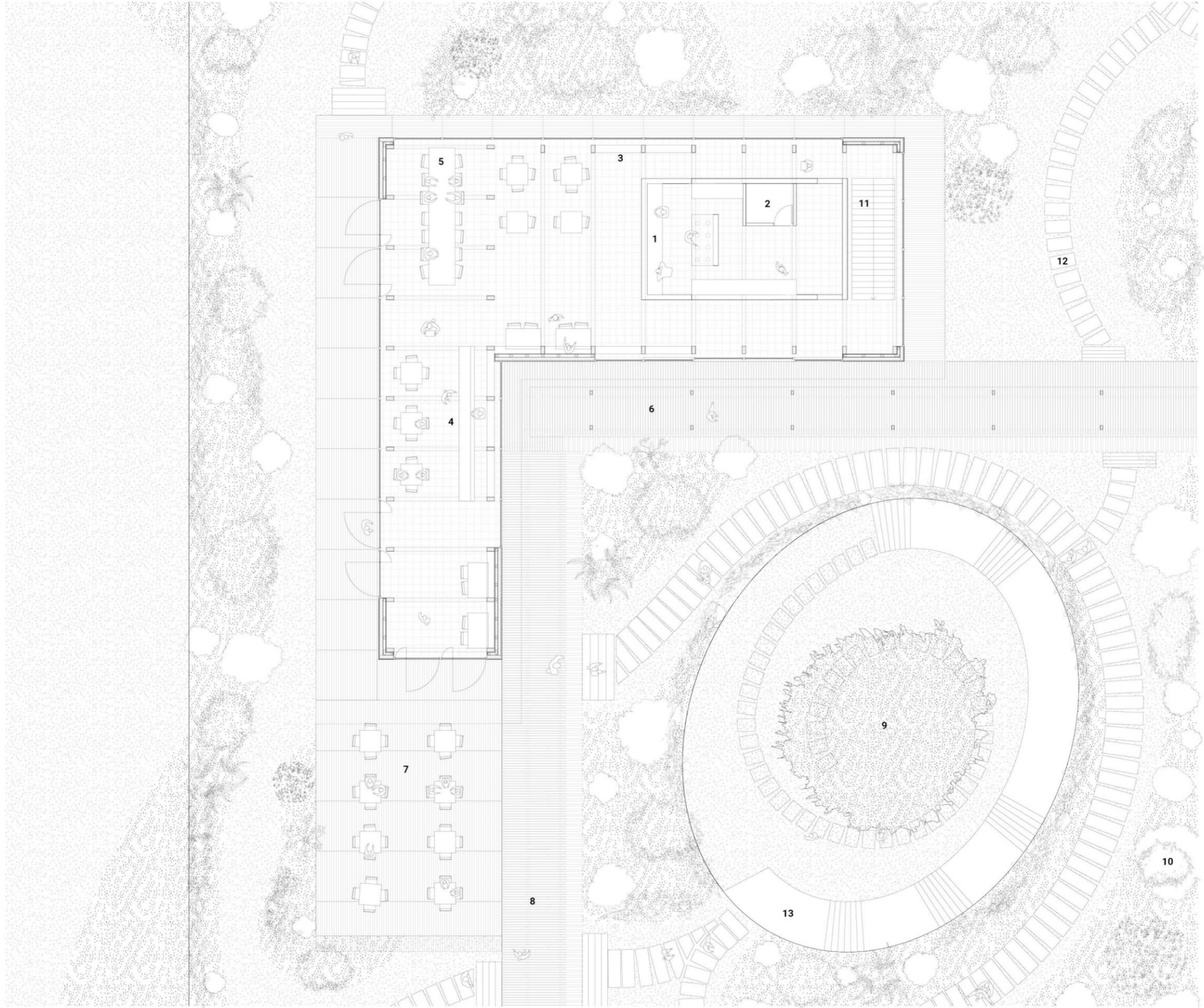


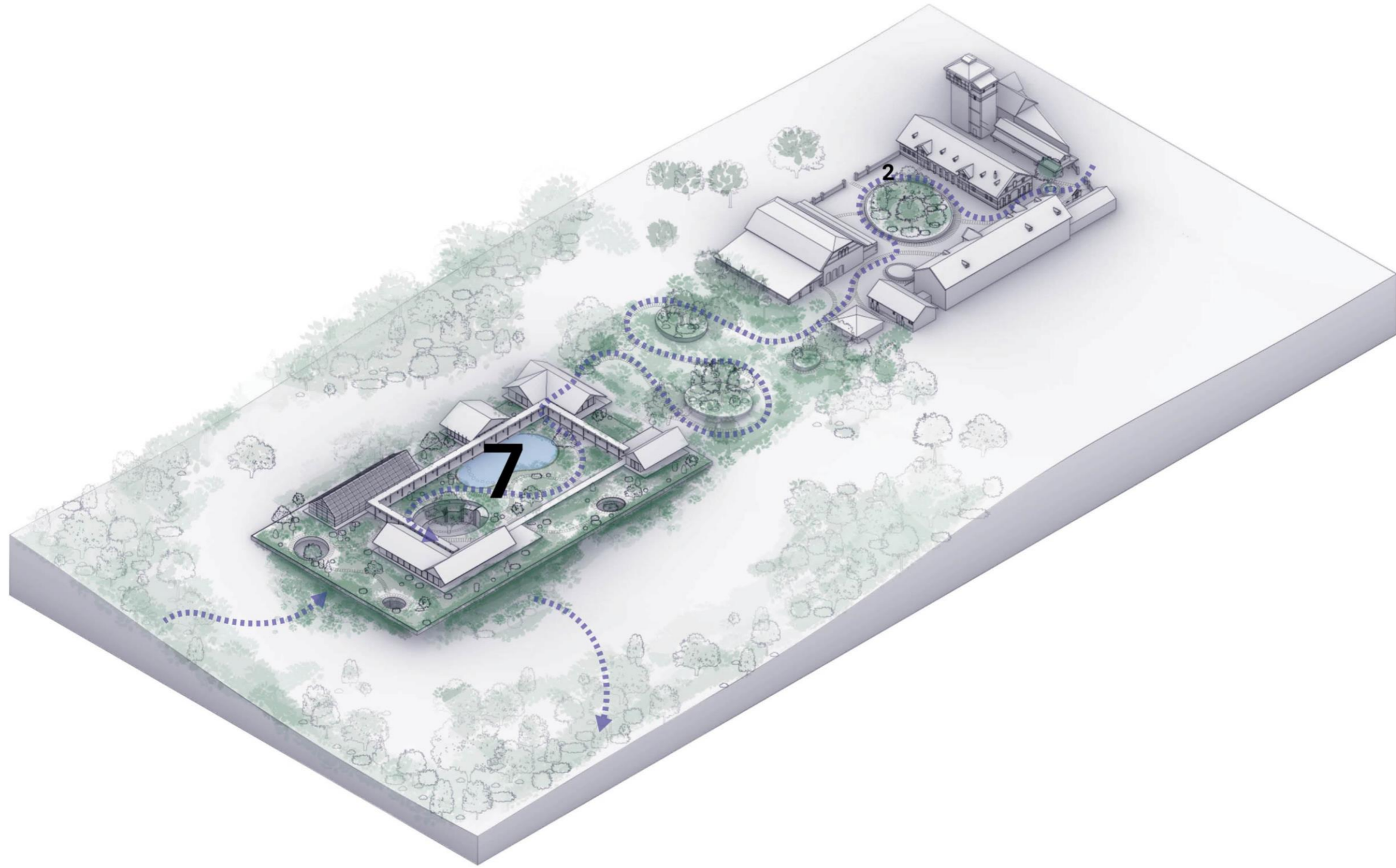


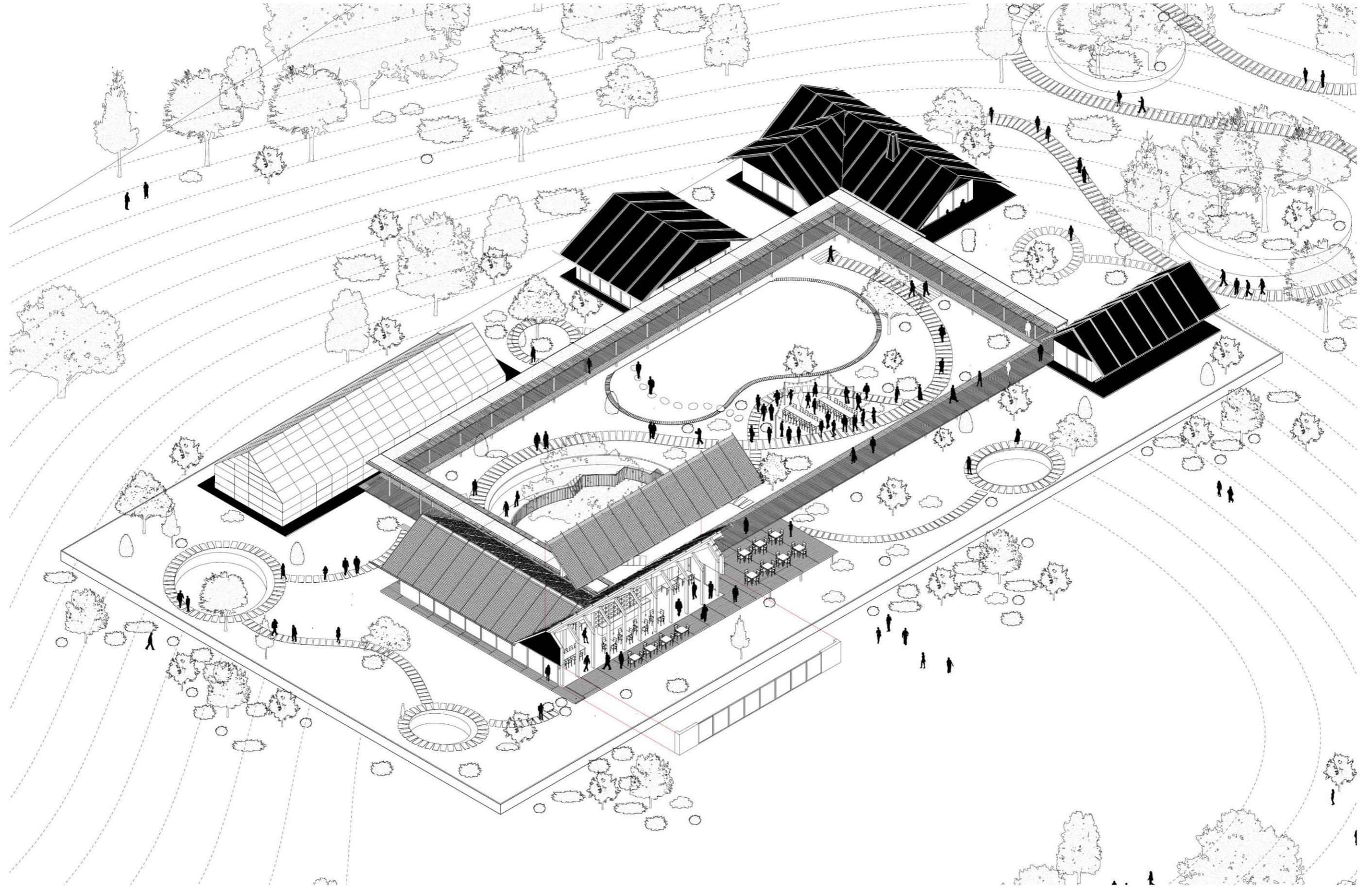


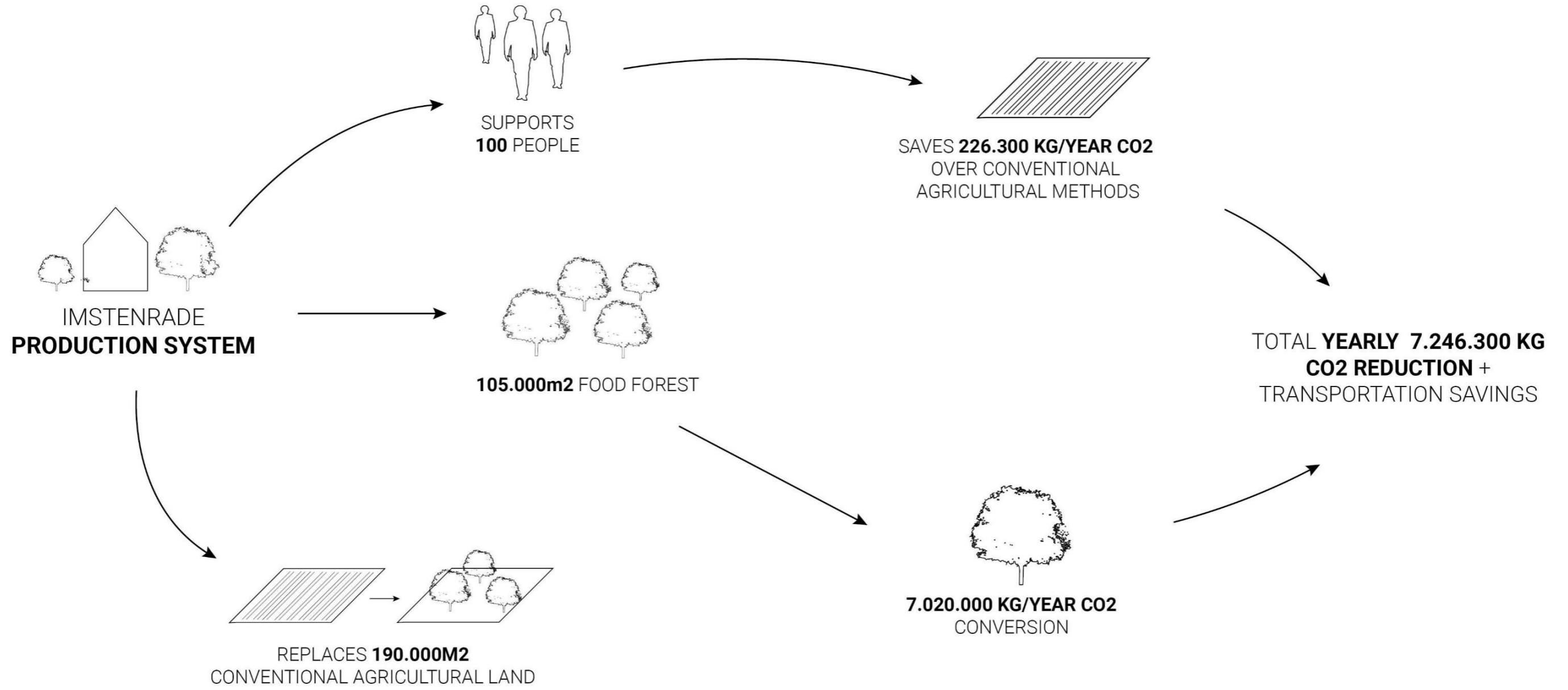
DETAIL 1 SCALE 1:10

- Roof tile wood black, thermal modification, shou sugi ban, burnt technique (strengthens the structure of the wood, makes it pest repellent and fungistatic, charcoal layer makes the wood fire retardant)
- Timber battens/counterbattens
- Façade membrane moisture diffusing
- 22mm oriented strand board
- 440/100 mm glue laminated structural timber
- 200mm hennep insulation
- 22mm softwood plywood
- Air ventilation pipe (venturi effect, small propellor in duct for wind absent days).
- Aluminium roof profile powder coated black.
- 190 mm dia. ventilation vent in insulation (closable)
- 15/260/400 mm perf. sheet metal





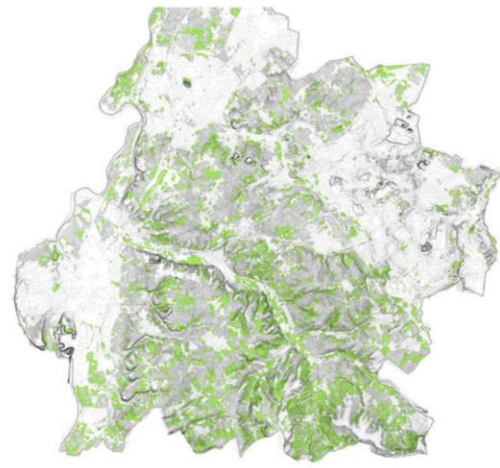






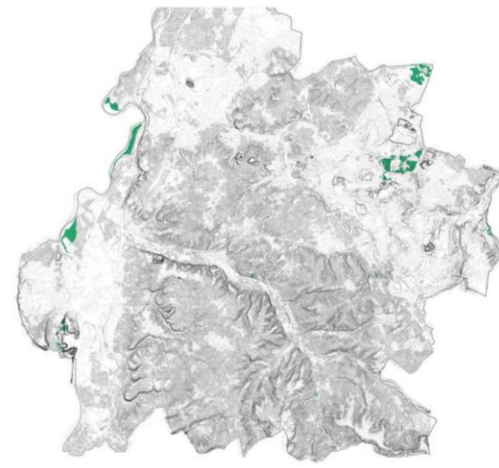
CONVENTIONAL AGRICULTURE

+



GRASSLANDS

+



NATURAL RESERVES

=



PRODUCTIVE & RECREATIONAL FOREST

THANK YOU

