

# PATCHWORK FARM

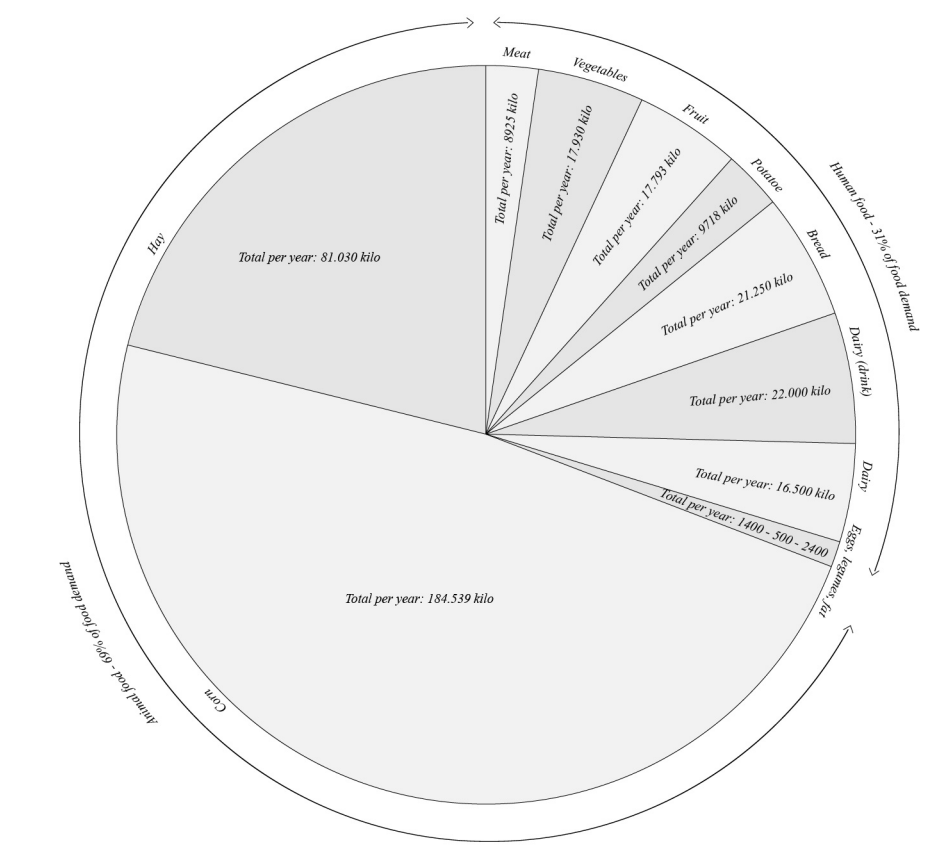
ESTHER DE RIJK

How can you provide animals of a better life? That's the question I started my project with. How can we give the animals on our farms as much outdoor space as possible, and how can they live a natural life?

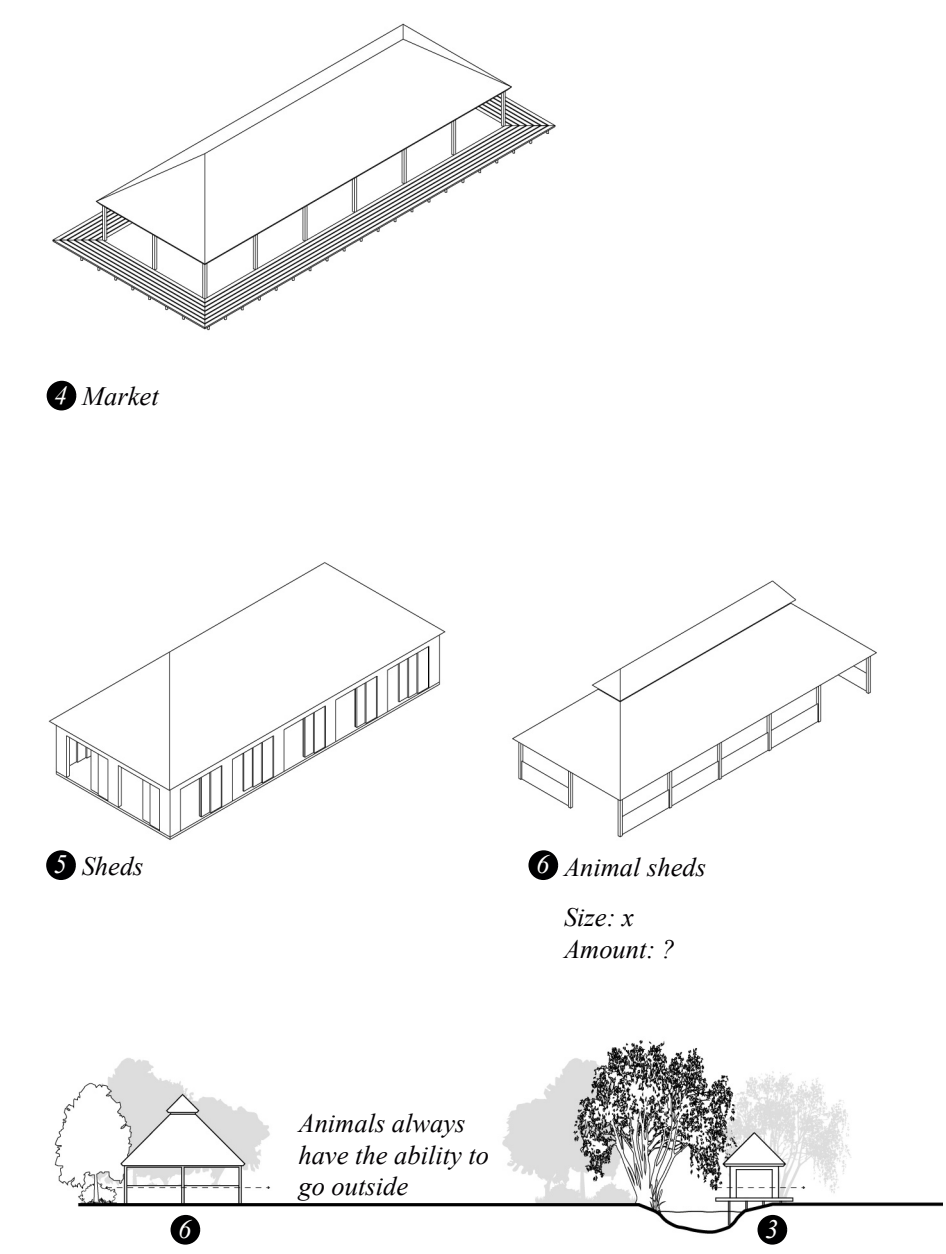
These are the reasons why I introduced a Patchwork Farm. Certain crops, such as winter wheat, are unproductive for months after harvest. A patchwork is used to be able to use that land for temporary outdoor living space for the animals. The farm is divided in a grid of 50 by 80 meters. These fields are surrounded by important green structures. They are important because they divide the fields, give shadow, bring biodiversity, synergie, and form a natural shelter and addition to the diet for the animals on the farm and the wild animals.

The Patchwork Farm feeds 60 to 75 percent of the food demand the 150 households that live on the farm have. This kind of farming is a way to introduce nature to our farms and to provide the animals of a better life.

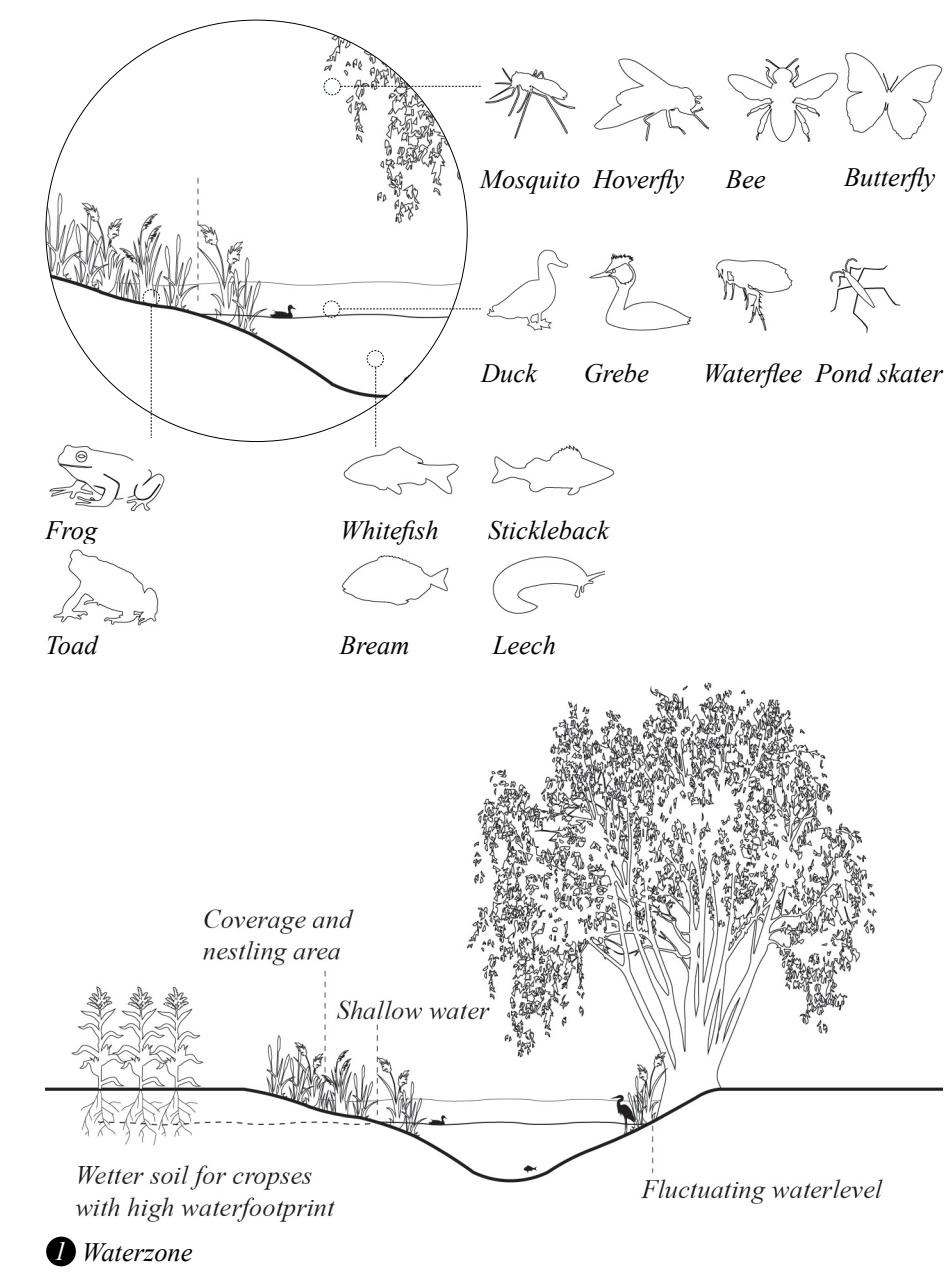
## CONCEPT



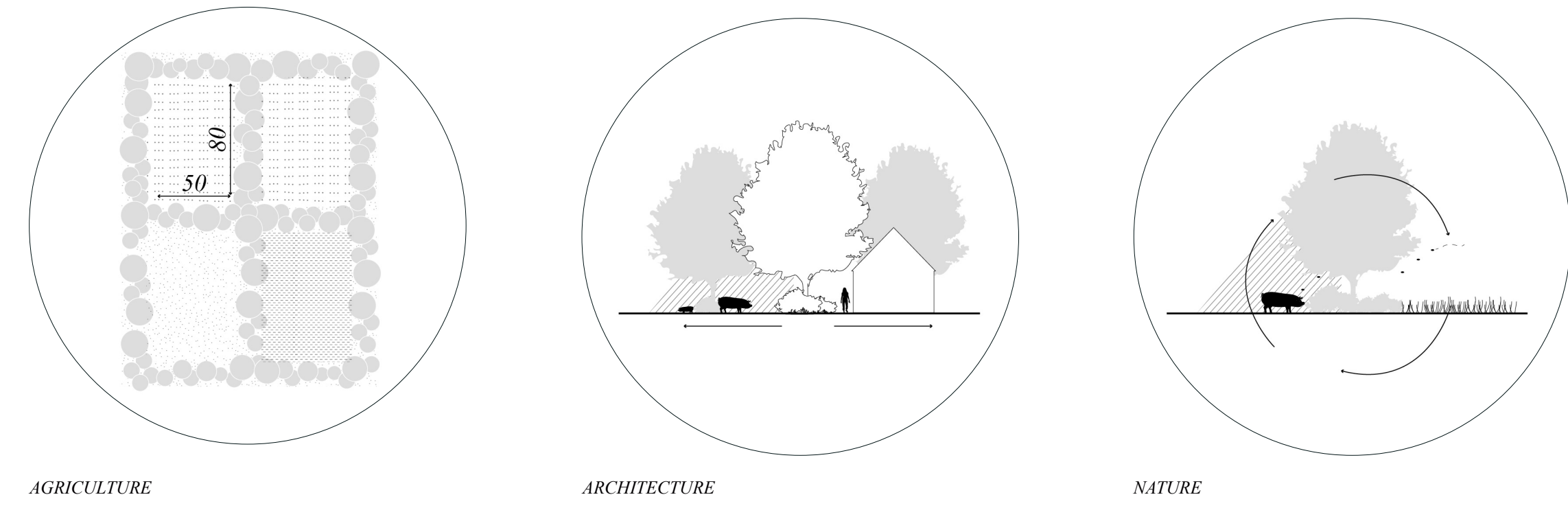
## DATA AGRICULTURE



## CATALOGUE (BUILDING TYPES) ARCHITECTURE



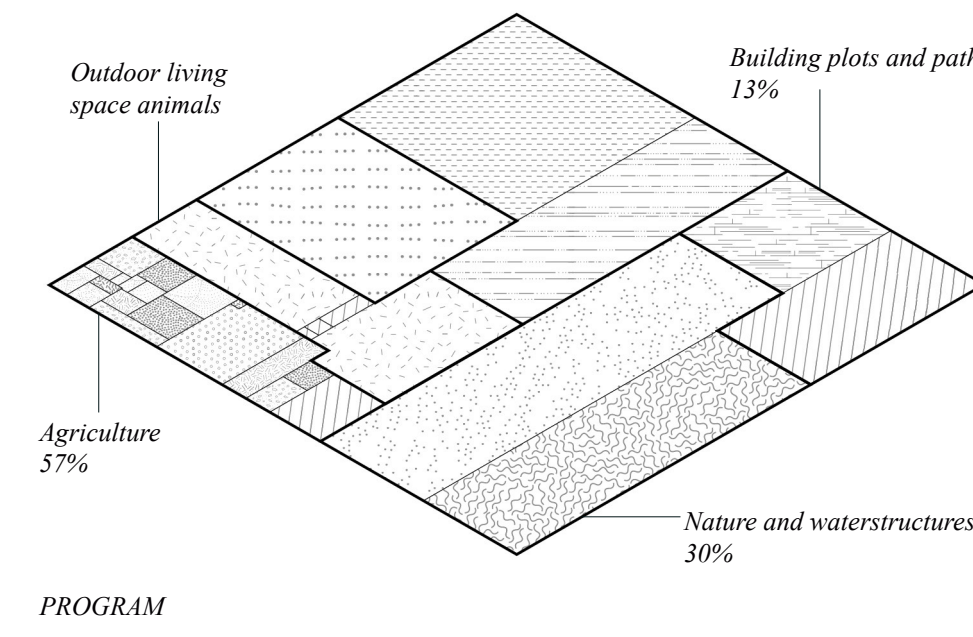
## CATALOGUE NATURE



AGRICULTURE

ARCHITECTURE

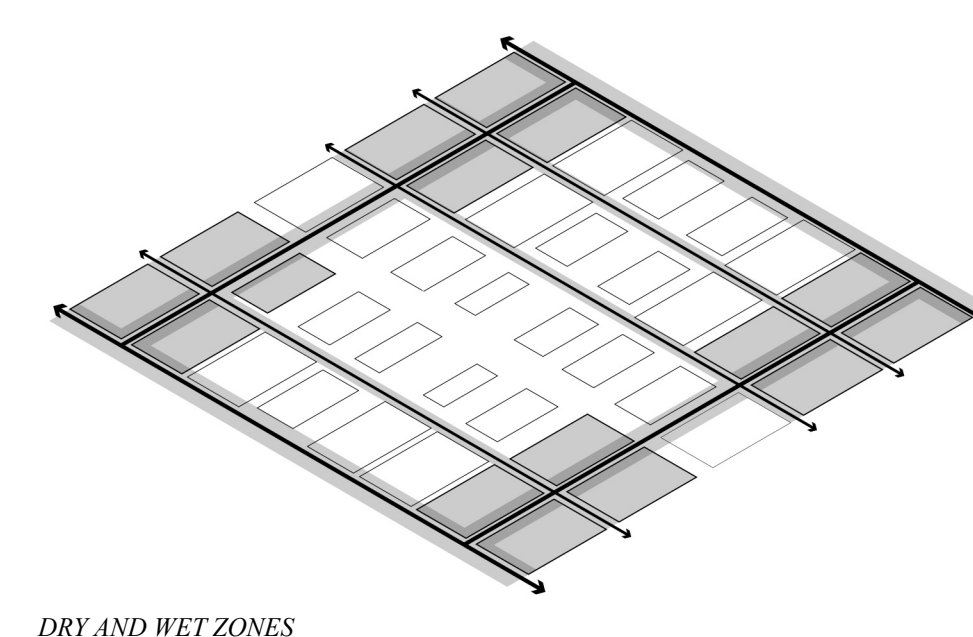
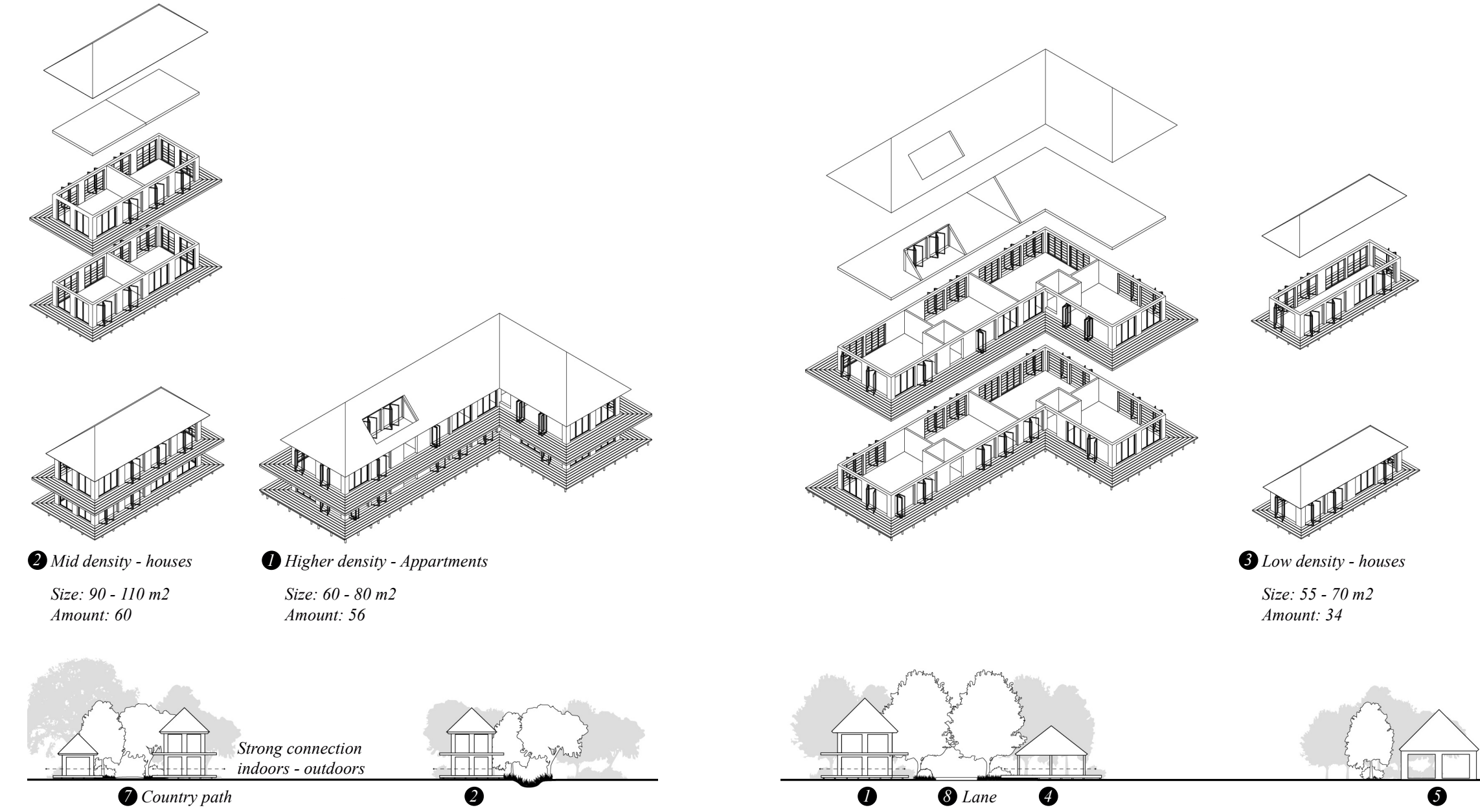
NATURE



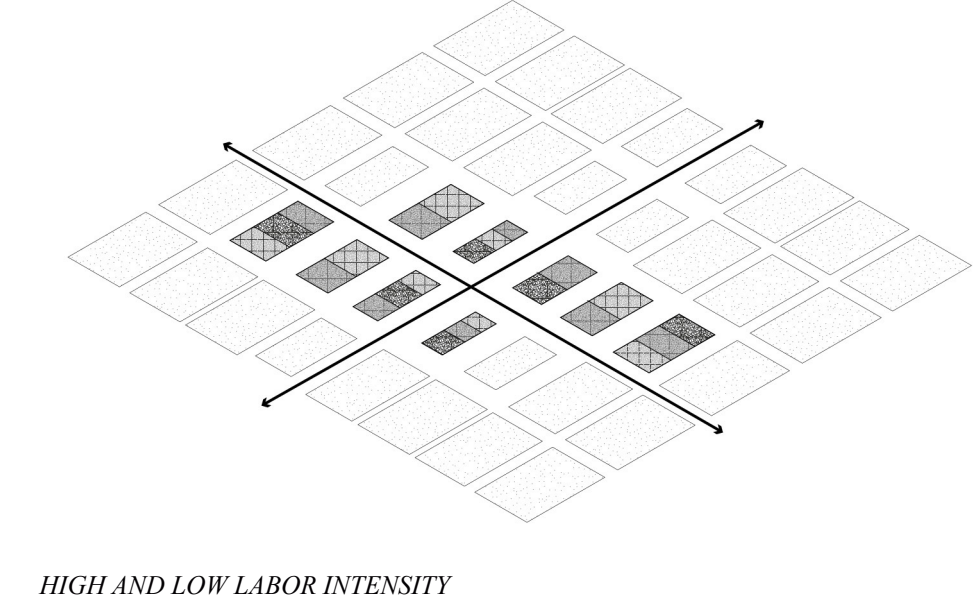
PROGRAM

<p><b>1</b> Carrot</p> <p>Yield: 7.5 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 2902 liter</p>	<p><b>2</b> Potato</p> <p>Yield: 8.3 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 3212 liter</p>	<p><b>3</b> Spinach</p> <p>Yield: 3.75 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1207 liter</p>	<p><b>4</b> Lettuce</p> <p>Yield: 4 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1288 liter</p>	<p><b>5</b> Cauliflower</p> <p>Yield: 1.8 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 579 liter</p>
<p><b>6</b> Kale</p> <p>Yield: 1.6 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 515 liter</p>	<p><b>7</b> Zucchini</p> <p>Yield: 20 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 6440 liter</p>	<p><b>8</b> Red cabbage</p> <p>Yield: 6 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1932 liter</p>	<p><b>9</b> Asperge</p> <p>Yield: 1 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 322 liter</p>	<p><b>10</b> Broccoli</p> <p>Yield: 1 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 322 liter</p>
<p><b>11</b> Peas</p> <p>Yield: 3 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 12,165 liter</p>	<p><b>12</b> Green beans</p> <p>Yield: 2.5 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 10,137 liter</p>	<p><b>13</b> Lentils</p> <p>Yield: 0.3 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1216 liter</p>	<p><b>14</b> Capsucins</p> <p>Yield: 0.4 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1622 liter</p>	<p><b>15</b> Strawberry</p> <p>Yield: 5 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 4810 liter</p>
<p><b>16</b> Pear</p> <p>Yield: 2 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1924 liter</p>	<p><b>17</b> Apple</p> <p>Yield: 2 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1924 liter</p>	<p><b>18</b> Paprika</p> <p>Yield: 3.25 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 3126 liter</p>	<p><b>19</b> Tomato</p> <p>Yield: 11.6 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 10,582 liter</p>	<p><b>20</b> Corn</p> <p>Yield: 4.5 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 7398 liter</p>
<p><b>21</b> Hay</p> <p>Yield: 0.8 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 840 liter</p>	<p><b>22</b> Winter wheat</p> <p>Yield: 0.84 kilo/m<sup>2</sup></p> <p>Waterfoot-print/m<sup>2</sup>: 1381 liter</p>	<p><b>23</b> Goats</p> <p>Yield: 2.7 liter/day</p> <p>Number: 10</p> <p>Indoor space: 200 m<sup>2</sup></p> <p>Outdoor space: 8000 m<sup>2</sup></p>	<p><b>24</b> Chicken</p> <p>Yield: 3 eggs/week</p> <p>Number: 107</p> <p>Indoor space: 70 m<sup>2</sup></p> <p>Outdoor space: 8000 m<sup>2</sup></p>	<p><b>25</b> Pigs</p> <p>Yield: 60 kilo meat, 15 kilo fat</p> <p>Number: 148</p> <p>Indoor space: 370 m<sup>2</sup></p> <p>Outdoor space: 12,000 m<sup>2</sup></p>

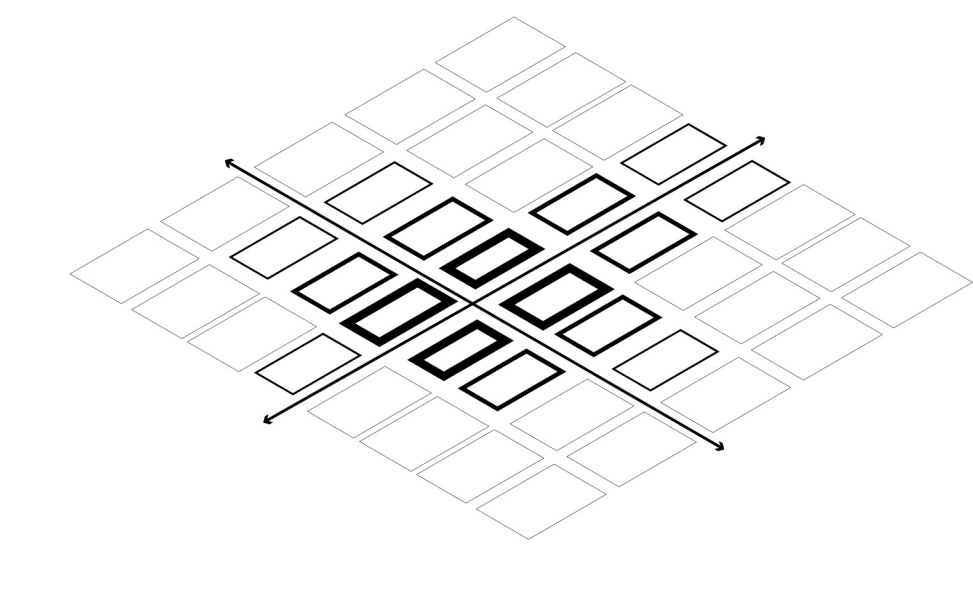
## CATALOGUE (CROP TYPES)



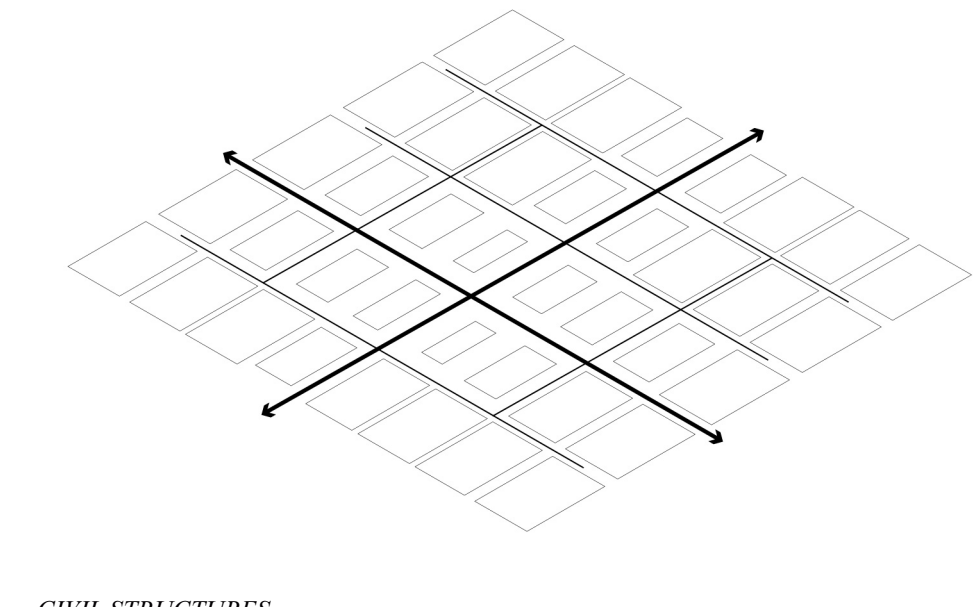
DRY AND WET ZONES



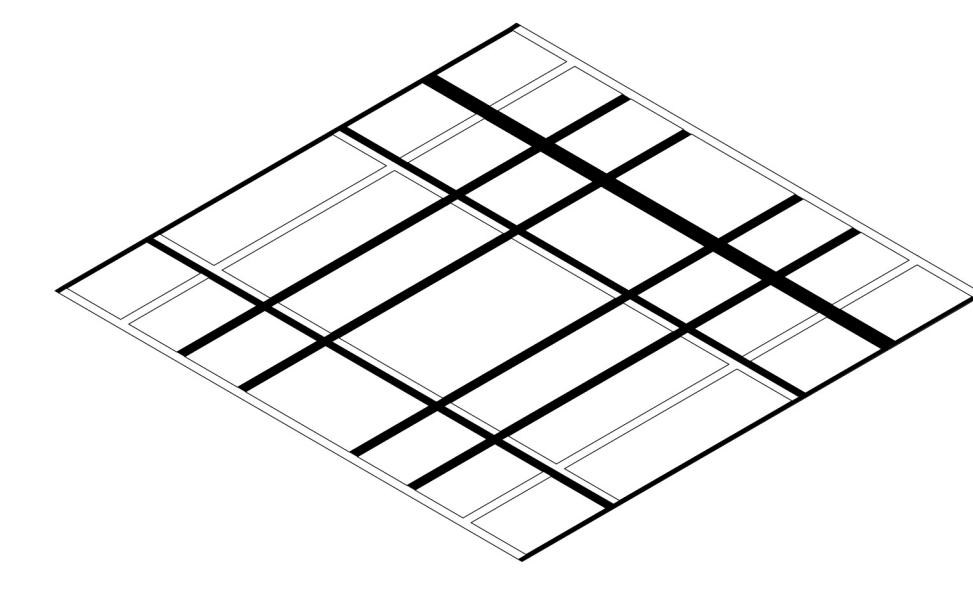
HIGH AND LOW LABOR INTENSITY



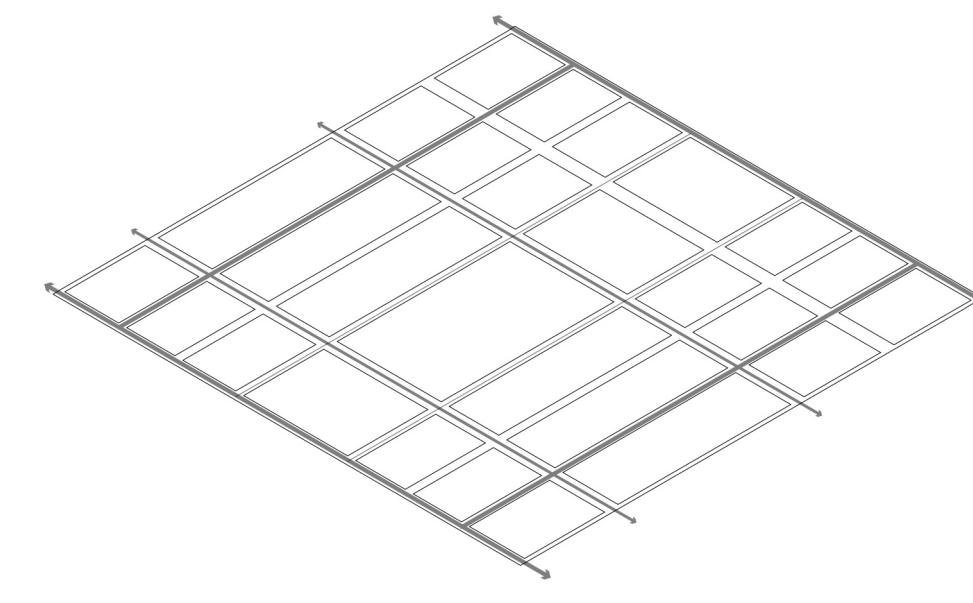
BUILDING DENSITY



CIVIL STRUCTURES



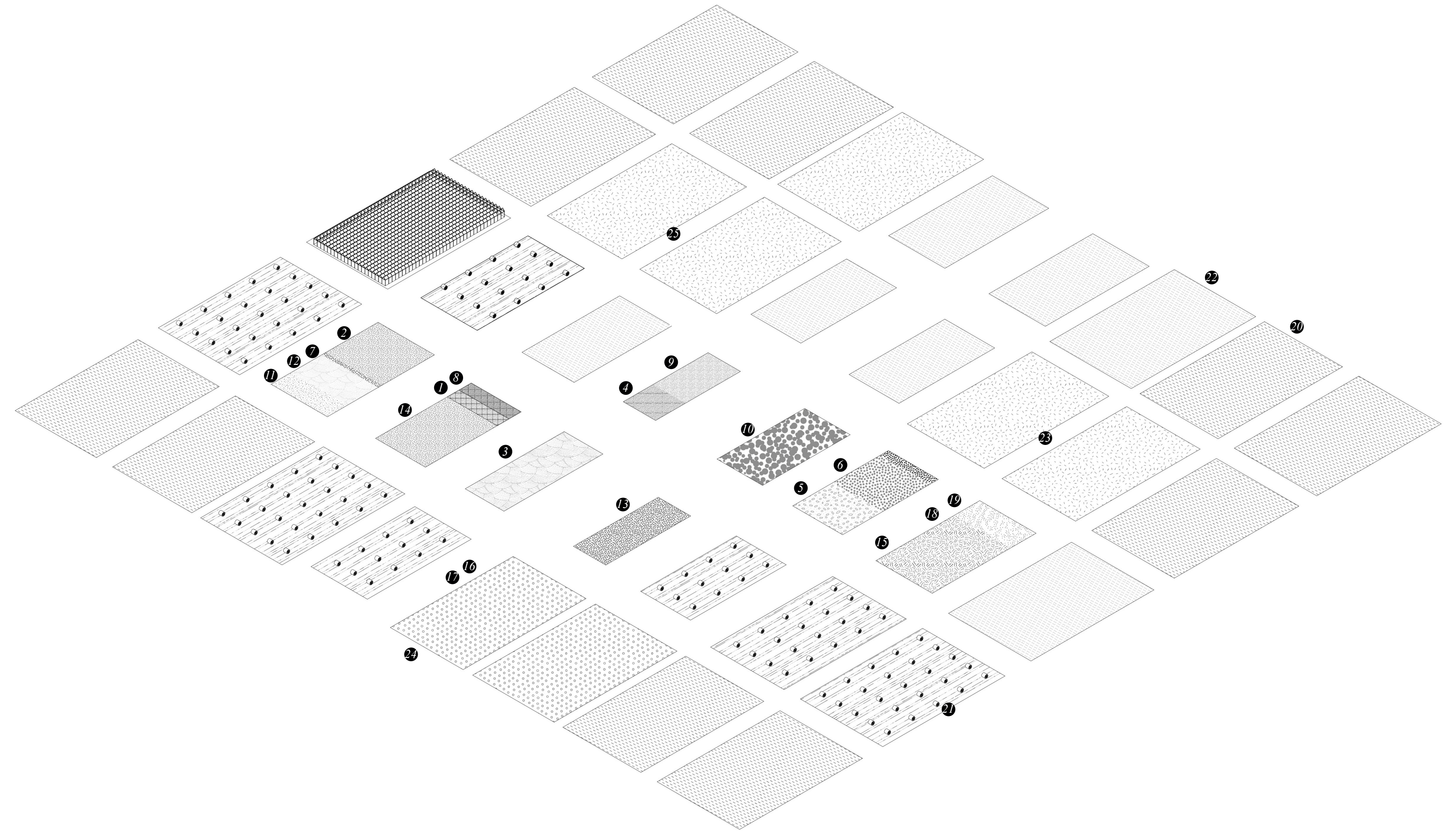
GREEN STRUCTURES



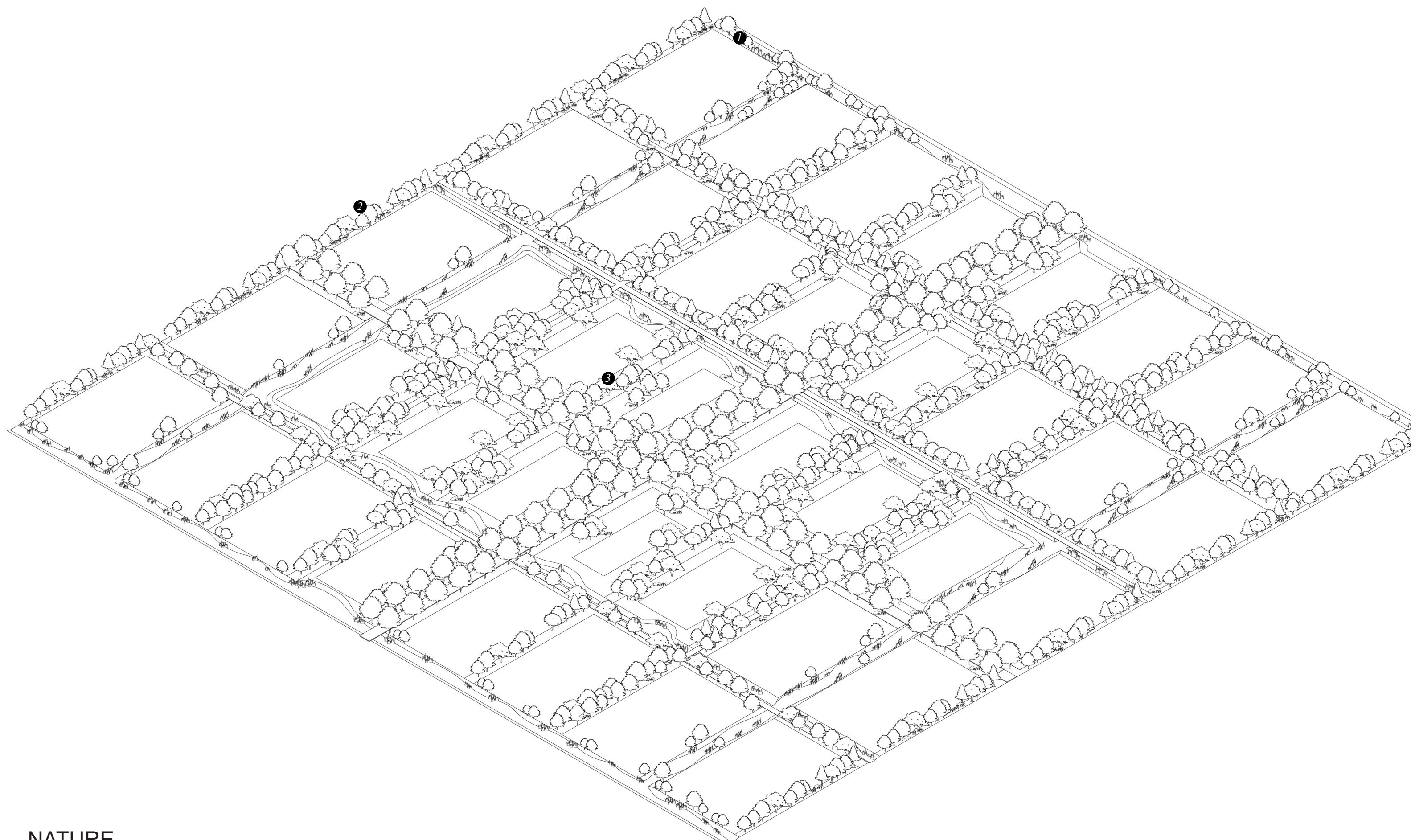
BLUE STRUCTURES



## ARCHITECTURE



## AGRICULTURE



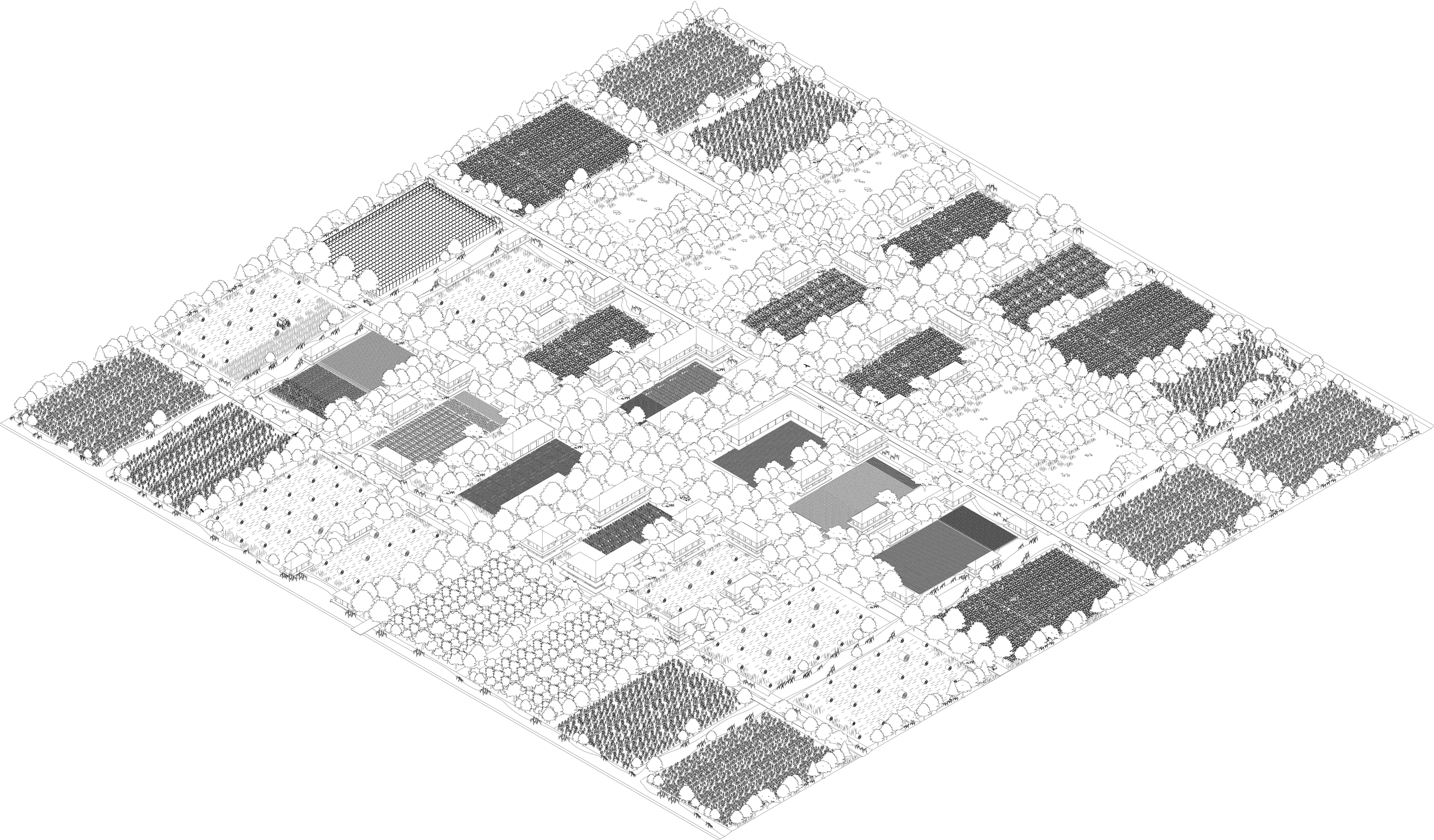
- 1 Higher density - houses
- 2 Mid density - houses
- 3 Low density - houses
- 4 Market
- 5 Animal sheds
- 6 Sheds
- 7 Country path
- 8 Lane

- 1 Carrot
- 2 Potato
- 3 Spinach
- 4 Lettuce
- 5 Cauliflower
- 6 Kale
- 7 Zucchini
- 8 Red cabbage
- 9 Asperge
- 10 Broccoli
- 11 Peas
- 12 Green beans
- 13 Lentils
- 14 Capsucins
- 15 Strawberry
- 16 Apple
- 17 Pear
- 18 Paprika
- 19 Tomato
- 20 Corn
- 21 Hay
- 22 Winter wheat
- 23 Outdoor space goats
- 24 Outdoor space chicken
- 25 Outdoor space pigs

- 1 Waterzone
- 2 Dry forest zone
- 3 Humid forest zone

# PATCHWORK FARM

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TOTAL PLAN