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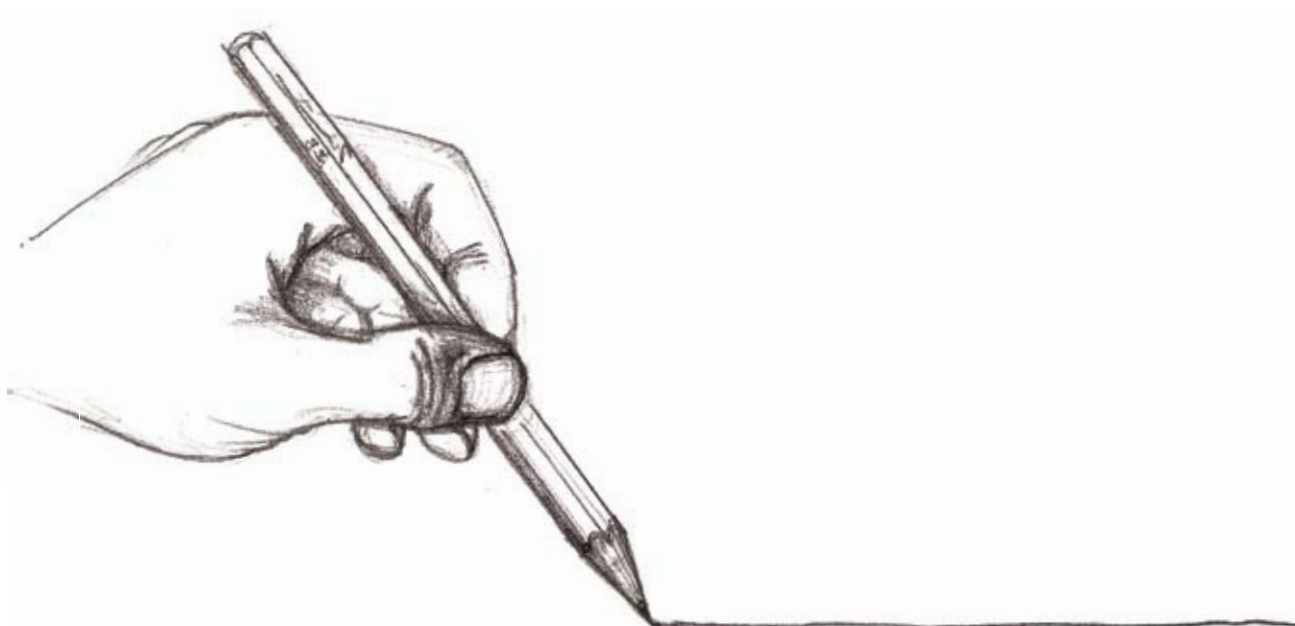
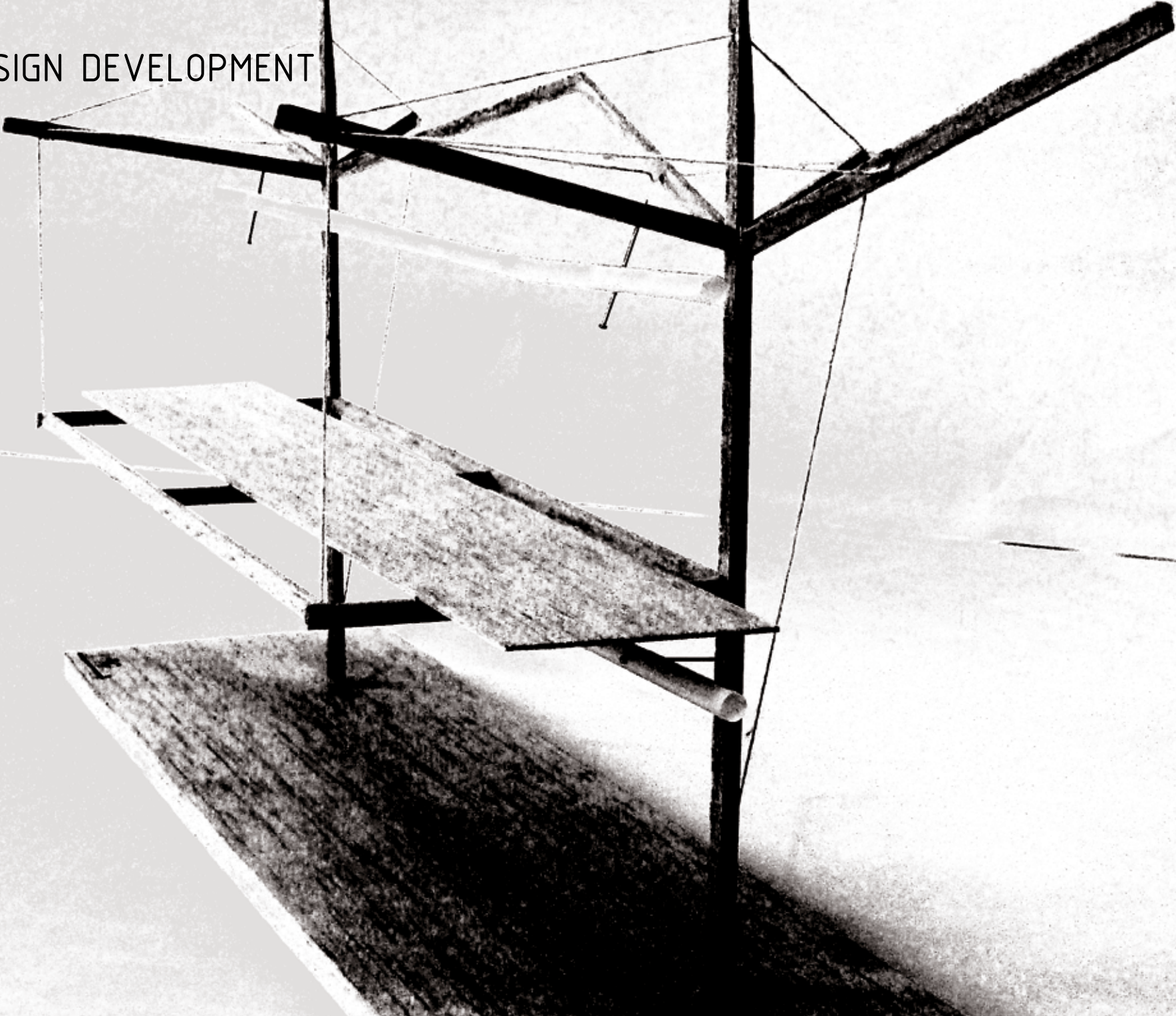


Fig. 118 The line

Fig. 119 Tensile model

DESIGN DEVELOPMENT







**JOURNEY TO THE (SERVANT) CORE  
PUBLIC SERVICES AND AMENITIES BUILDING**

The author originally formed part of the urban design framework UDoA, Urban Dictionary of Africa, in the North West quadrant of Pretoria city. However, it was argued that an informal settlement presented a more relevant problem.

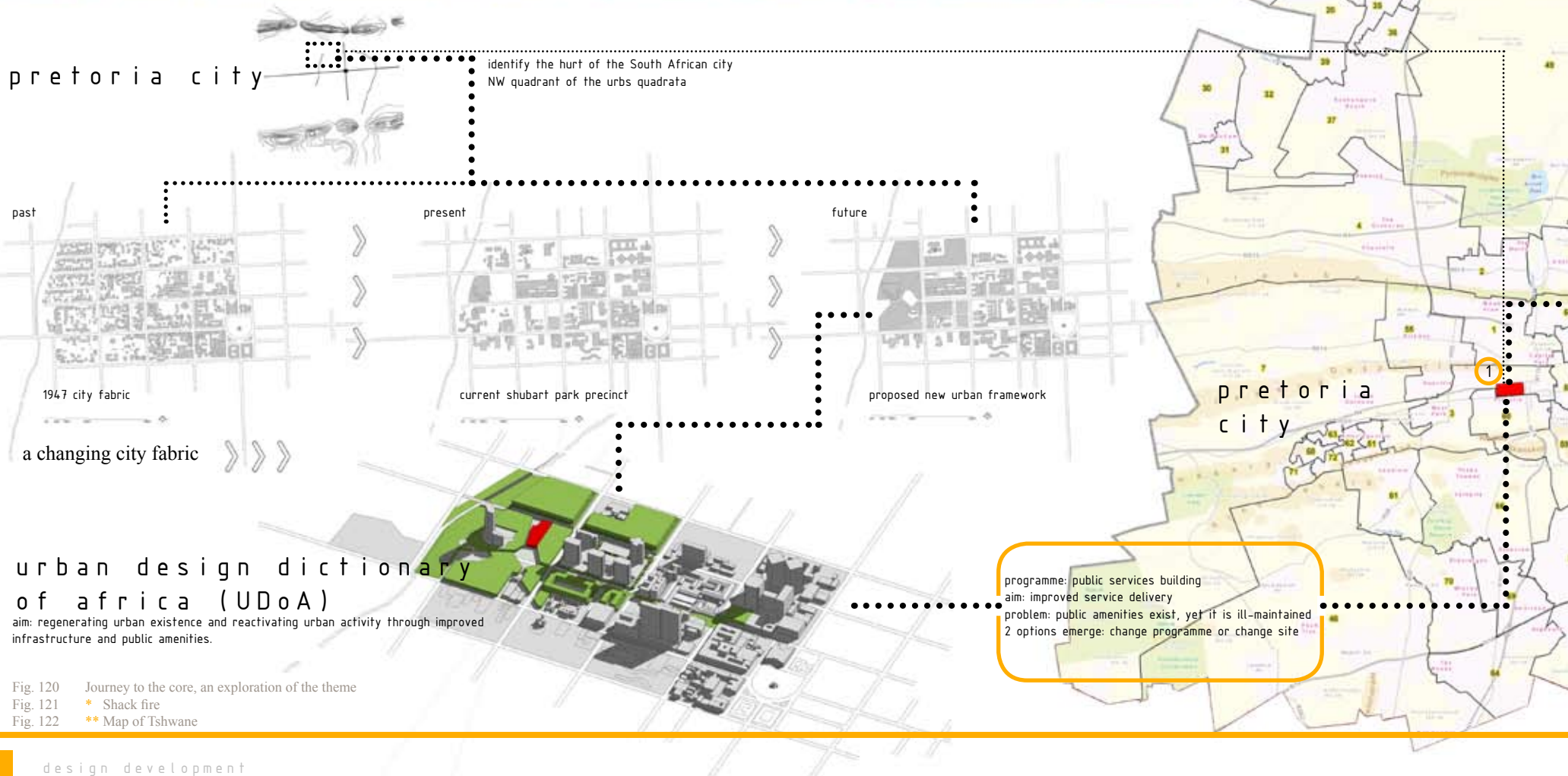


Fig. 120 Journey to the core, an exploration of the theme

Fig. 121 \* Shack fire

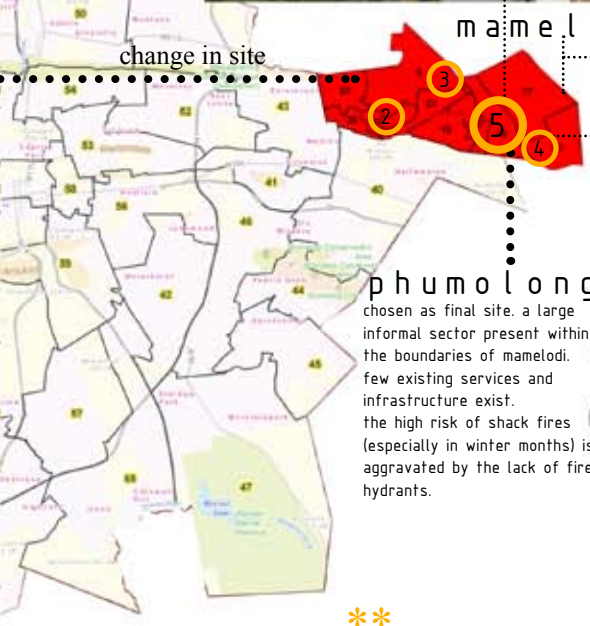
Fig. 122 \*\* Map of Tshwane





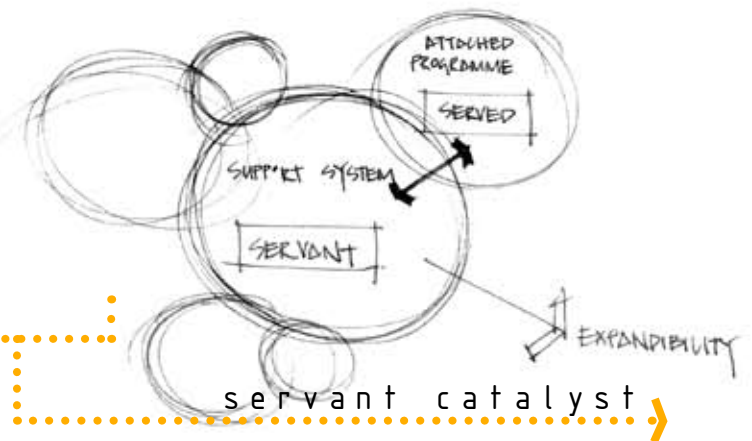
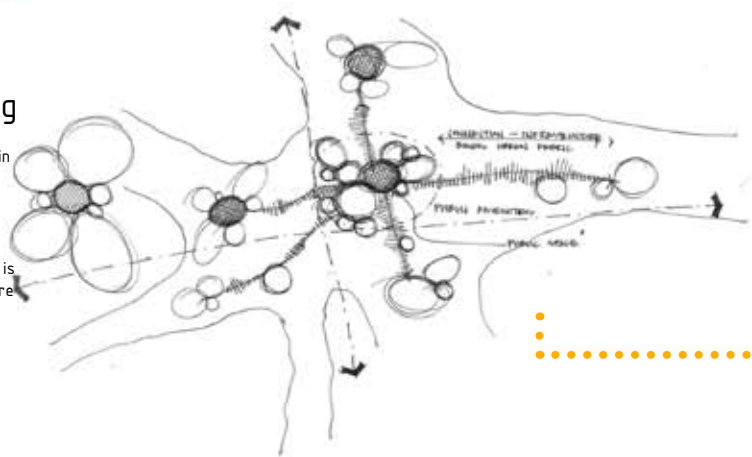
\*

possible programme, need for a fire station?



access to water...

a pressing need is access to fire hydrants within the informal settlements



\*\*

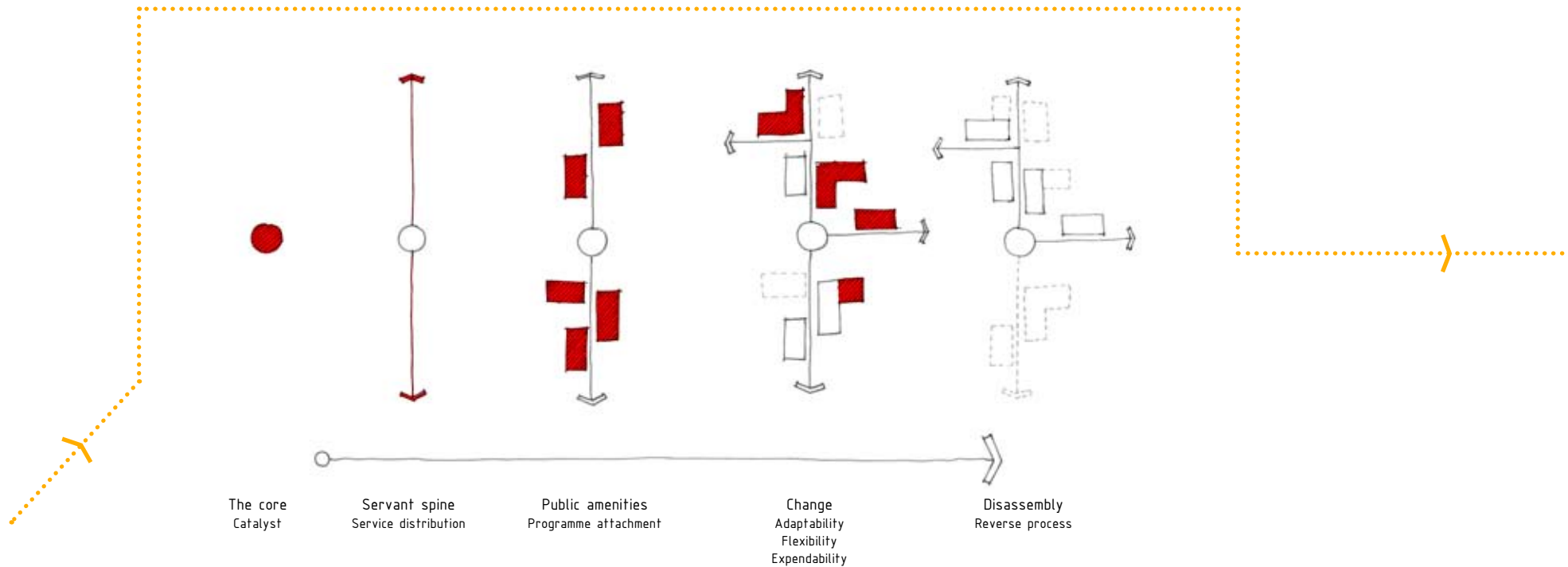


Fig. 123 Developmental phases of servant building

## DESIGN PROCESS

The design system should act as a catalyst for growth. The level of growth is determined by various factors; the environment, the community and the individual. The design system could be described as a generator, for social relationships, living conditions as well as the urban/rural development.

It is important that first phase operation takes place independently from the municipal grid. The system should

display the ability to accommodate new technologies when necessary.

The service core should function on its own or within a larger collection. The proposed service core is established as an immediate response to the urgent need for water in Phumlong. The water reservoir would supply potable water to residents and could be used as a water store to fill the tanks of fire fighting vehicles in instances of fire.

The design could be implemented in phases, as a continuous process. Experience and need should determine the direction of growth.

During the planning phase a host environment or site is identified. The first phase oversees the assembly of the core structure using off-site material. Local labour is used and skills may be transferred.

The initial service core is a direct response to community needs. It is to act as the servant, wherein the main services are contained and from which they are distributed through extendible spines to future programmes. These infrastructural spines both distribute matter and energy as well as receive and remove waste. Ultimately they may be seen as extendible, plug-in transportation mediums by which auxiliary programmes are sustained.

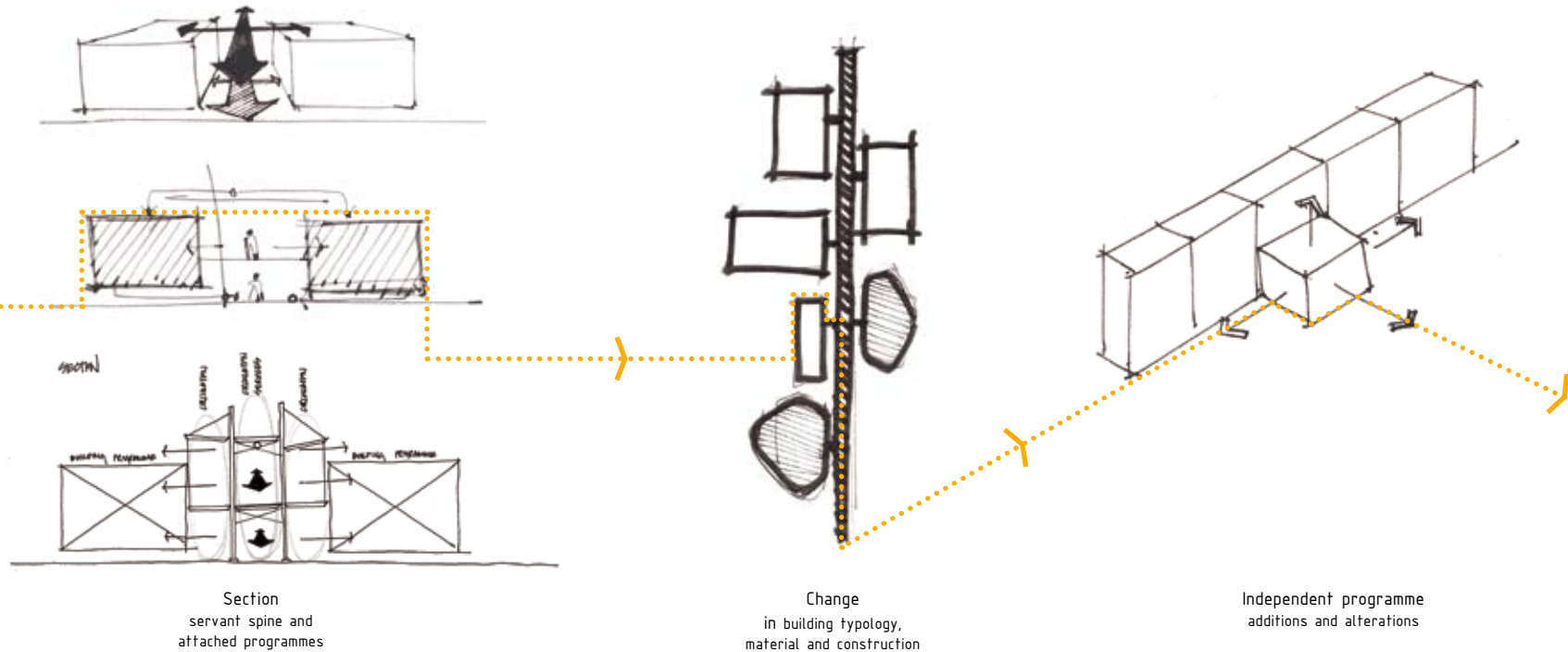


Fig. 124 Parti diagrams

During the second phase various programmes are attached to the system along the spine. The programme could be public services carrying a degree of civic importance. Examples include clinic, police station or fire station. These programmes could be coupled with a public or recreational space. The second phase witnesses the implementation of local technologies in conjunction with available materials. This system should employ strategies of urban planning to

determine hierarchy and generate public space.

During the third phase additional programmes may be attached to the spine. These programmes could be detached when their life span has been reached. Secondary service spines may be erected to allow for growth in an alternative direction and manipulation of the space. The servant spine bears the potential to carry infrastructure. These could act

as a connector of the urban fabric and could typically include street lights, ablution facilities, bus stop, etc. The third phase caters for increased flexibility and extendibility.

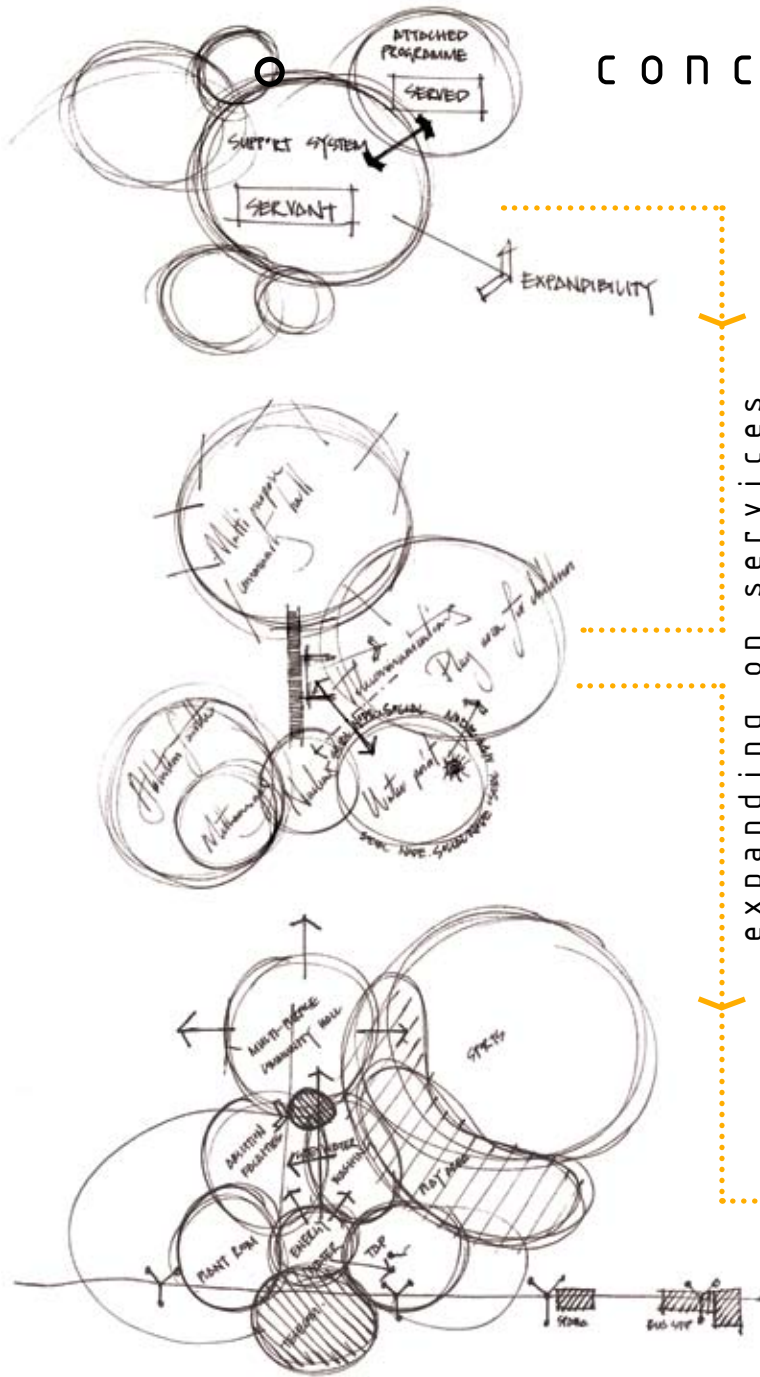
Throughout occupation the transformation of programmes may occur. This could result in the manipulation of form and layout. Secondary systems should provide for micro-enterprises (such as street vendors). At a later stage, isolated service

cores may be erected some distance away, supplementing the original system to expand on its capabilities (i.e. a secondary borehole).

Should the informal residents be relocated, the lightweight steel nut and bolt assembly may be disassembled and re-erected on an appropriate site. Alternatively, it may be absorbed into the expanding urban fabric.



concept . . .

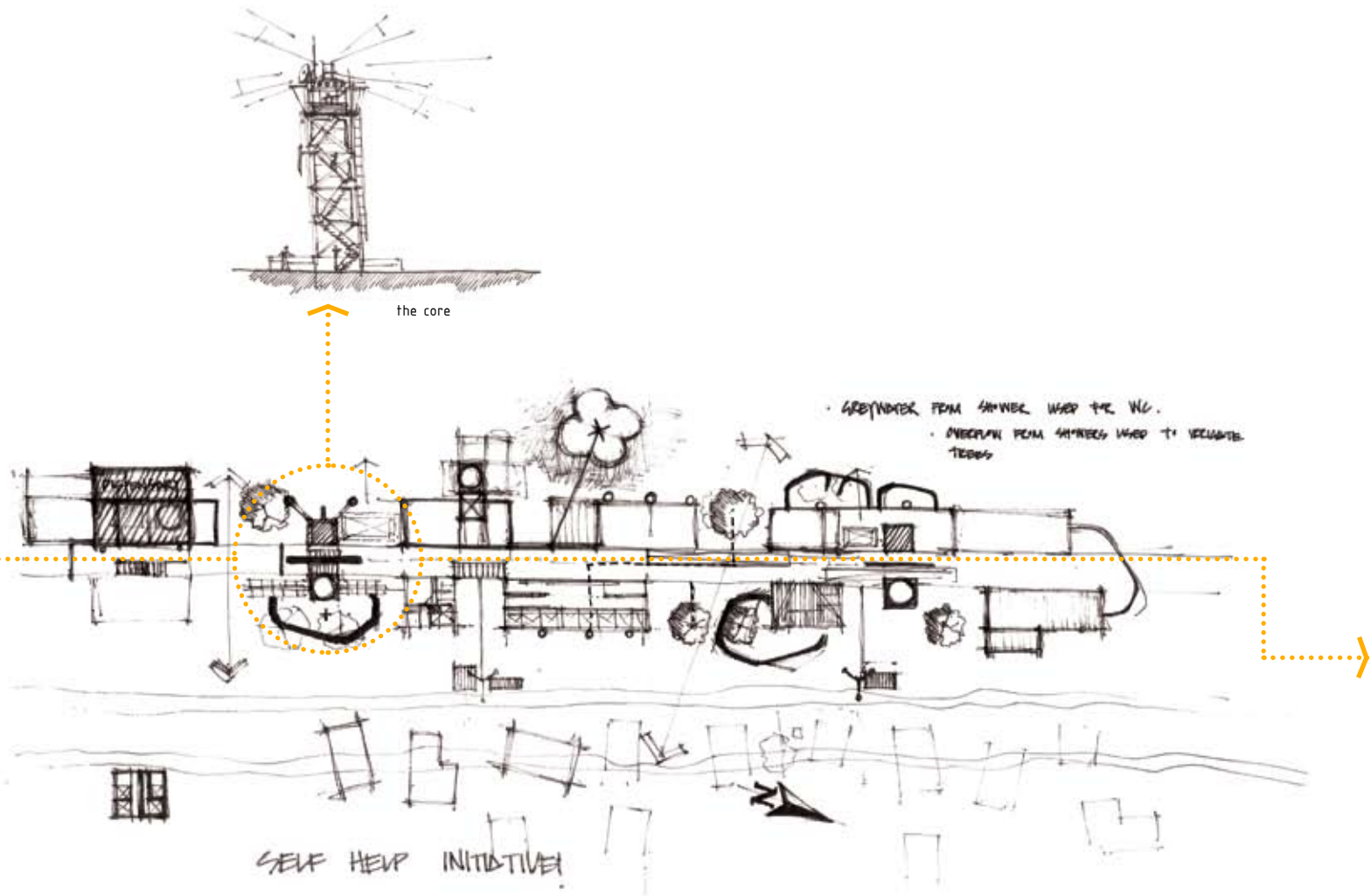


expanding on services



service delivery

the public realm



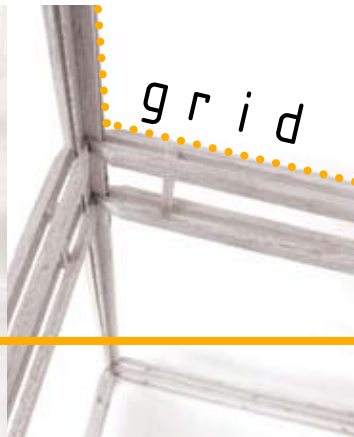
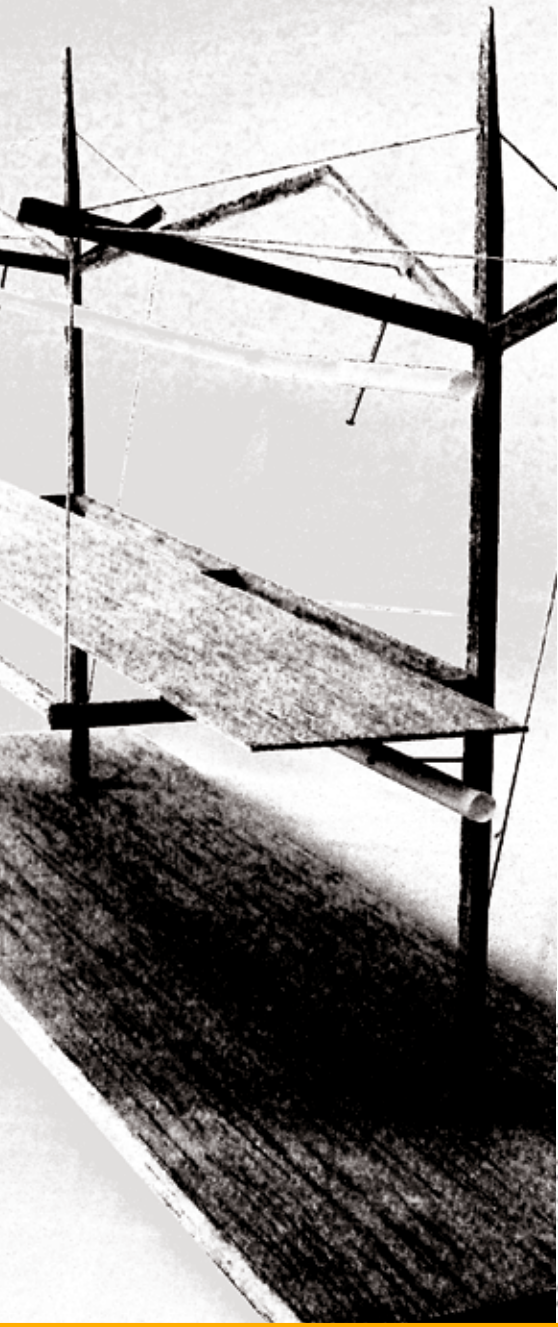
## synthesis...

of services and the public  
combining the parts into a whole

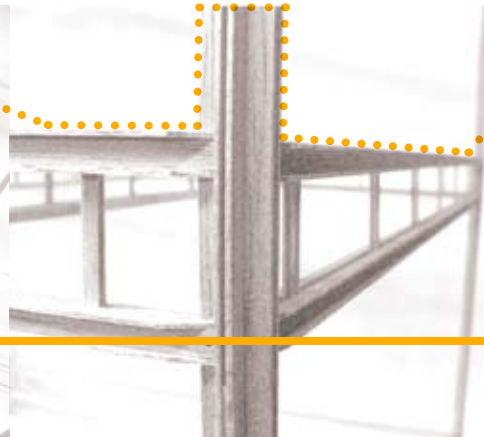
Fig. 125 Concept diagrams

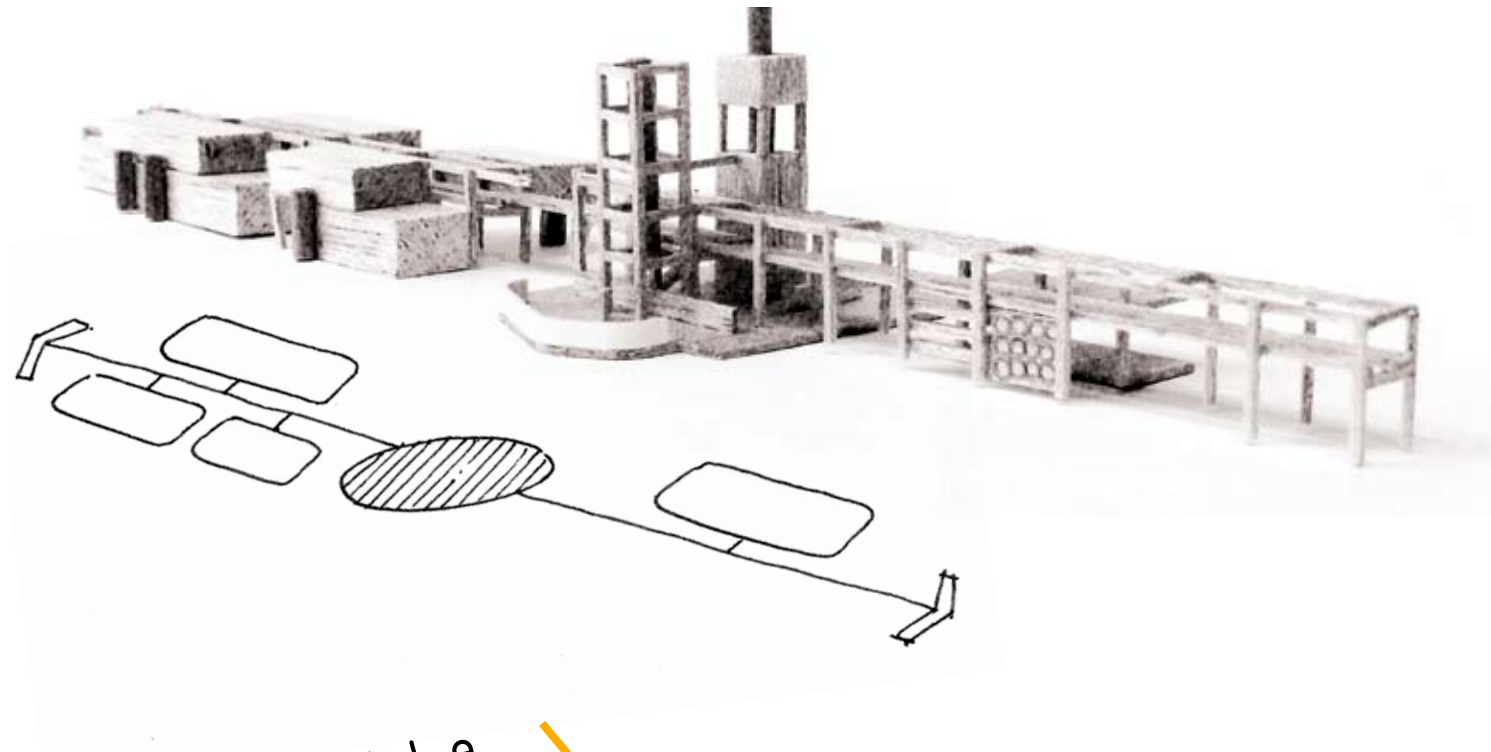


# structure



grid



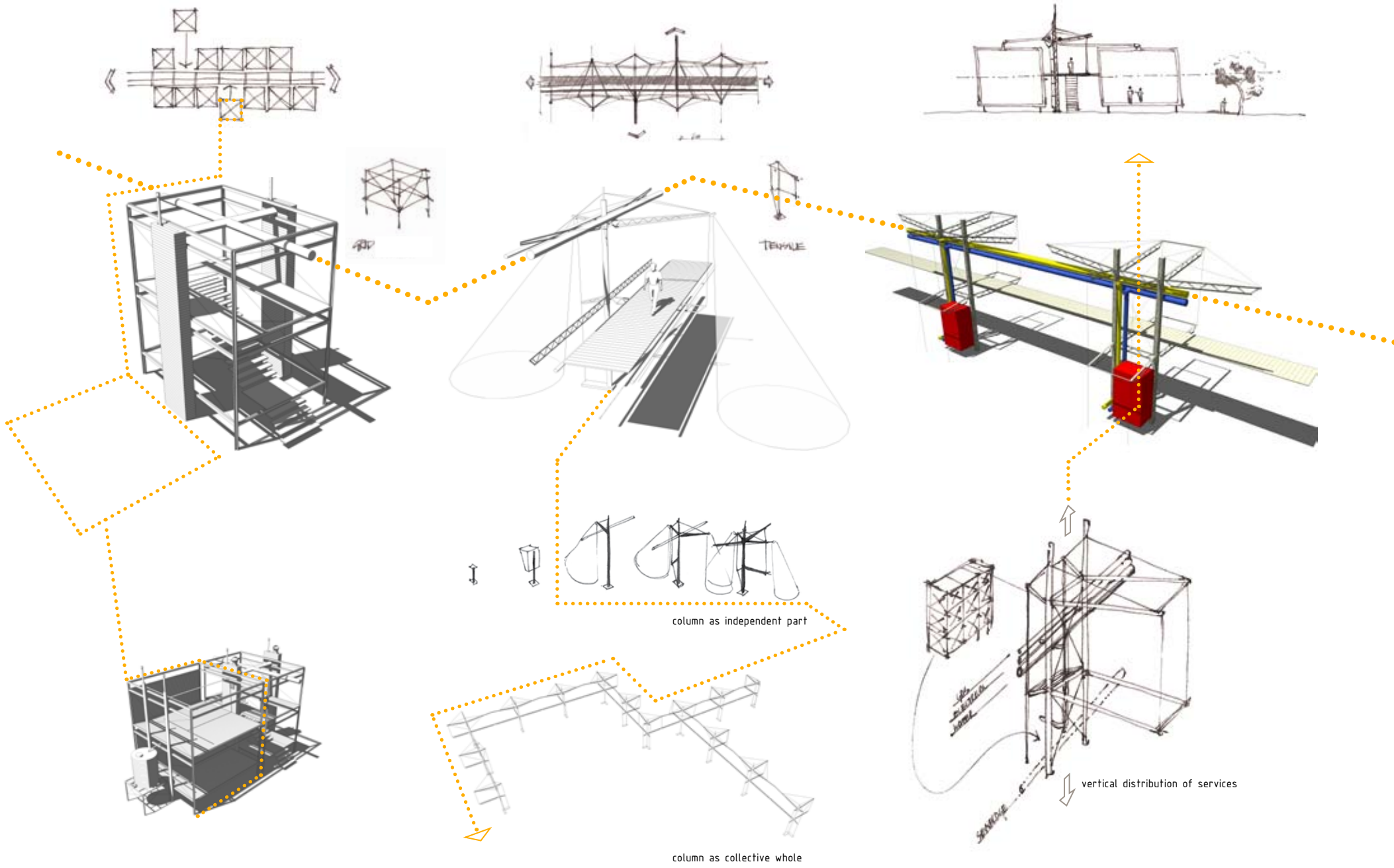


tensile



Fig. 126 Concept models





TEMPLE

column as independent part

vertical distribution of services

column as collective whole



# core and spine development

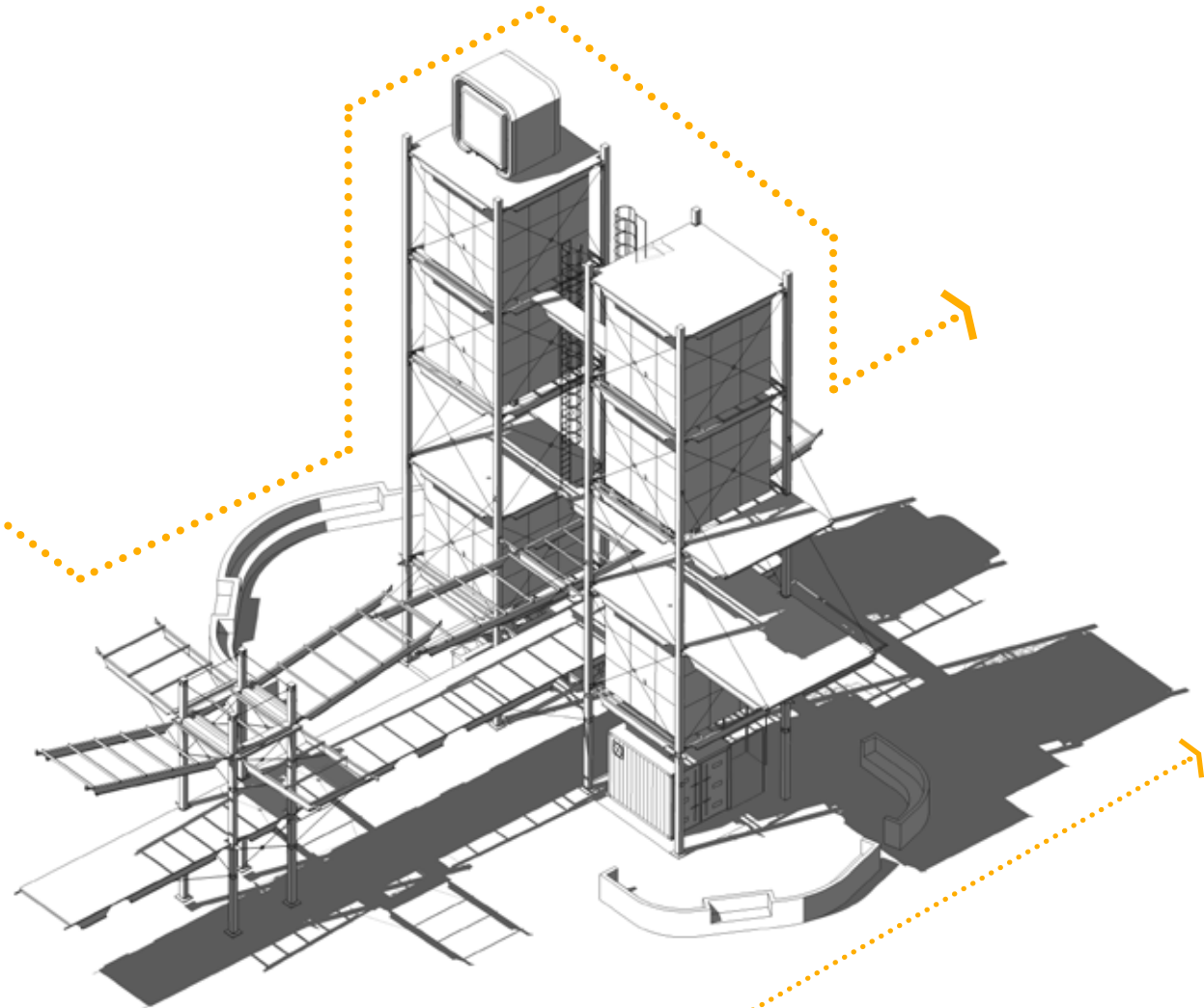
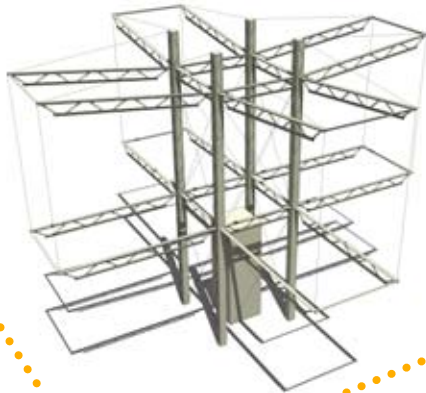
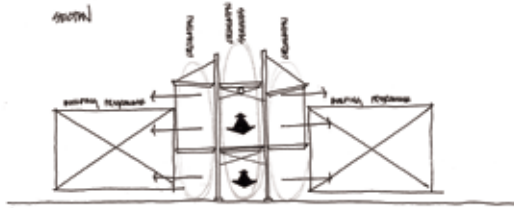
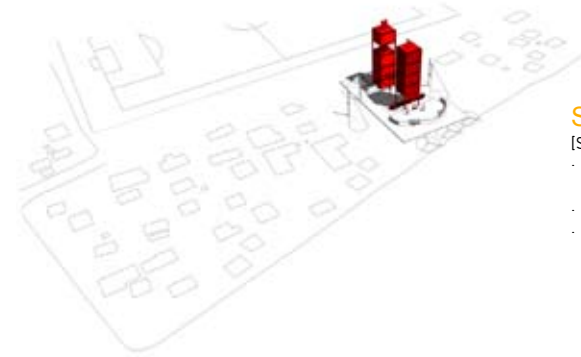


Fig. 127 Concept development

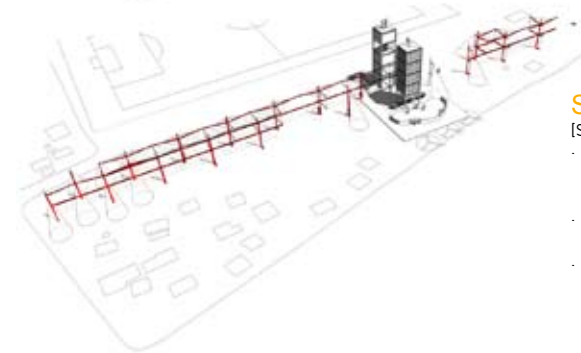
# servant core to servant spine



## SERVANT CORE

[Service delivery intervention responding to urgent need]

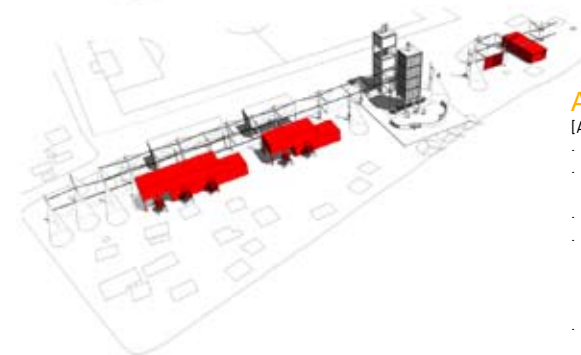
- Erect service core utilising on-site resources (borehole water)
- Provide potable water
- Lightweight steel structure and standardised water tank panels allow for easy transport via 'bakkie' and erection by local labour within short time span



## SERVANT SPINE

[Service distribution]

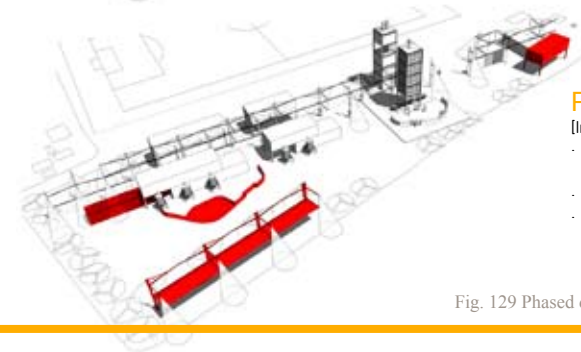
- Lightweight steel tensile structure fixed with nut & bolt assembly allows for erection by local labour and easy handling (no cranes or machines needed)
- these limbs may be seen as extendible, plug-in transportation mediums by which auxiliary programmes are sustained



## AUXILIARY PROGRAMMES

[Attaching civic programmes]

- Secondary services and amenities provided eg. ablution facilities, telecommunications, clinic, police station
- Civic structure attached to service spine
- Building additions to make use of local technology using lightweight steel structures clad with corrugated sheeting (reminiscent of the ubiquitous shack) as well as dry stacking HYDRAFORM blocks
- 'Mechano' like assembly allows for disassembly if needed



## PRIVATE PROGRAMMES

[Informal additions]

- Privately run micro-enterprises (informal traders) may attach to activity spine.
- Public space activated by community intervention.
- Gathering spaces and reclusive spaces shaped by growth of the building system



Fig. 128 Access to public amenities

Fig. 129 Phased development of building system based on earlier structure and layout

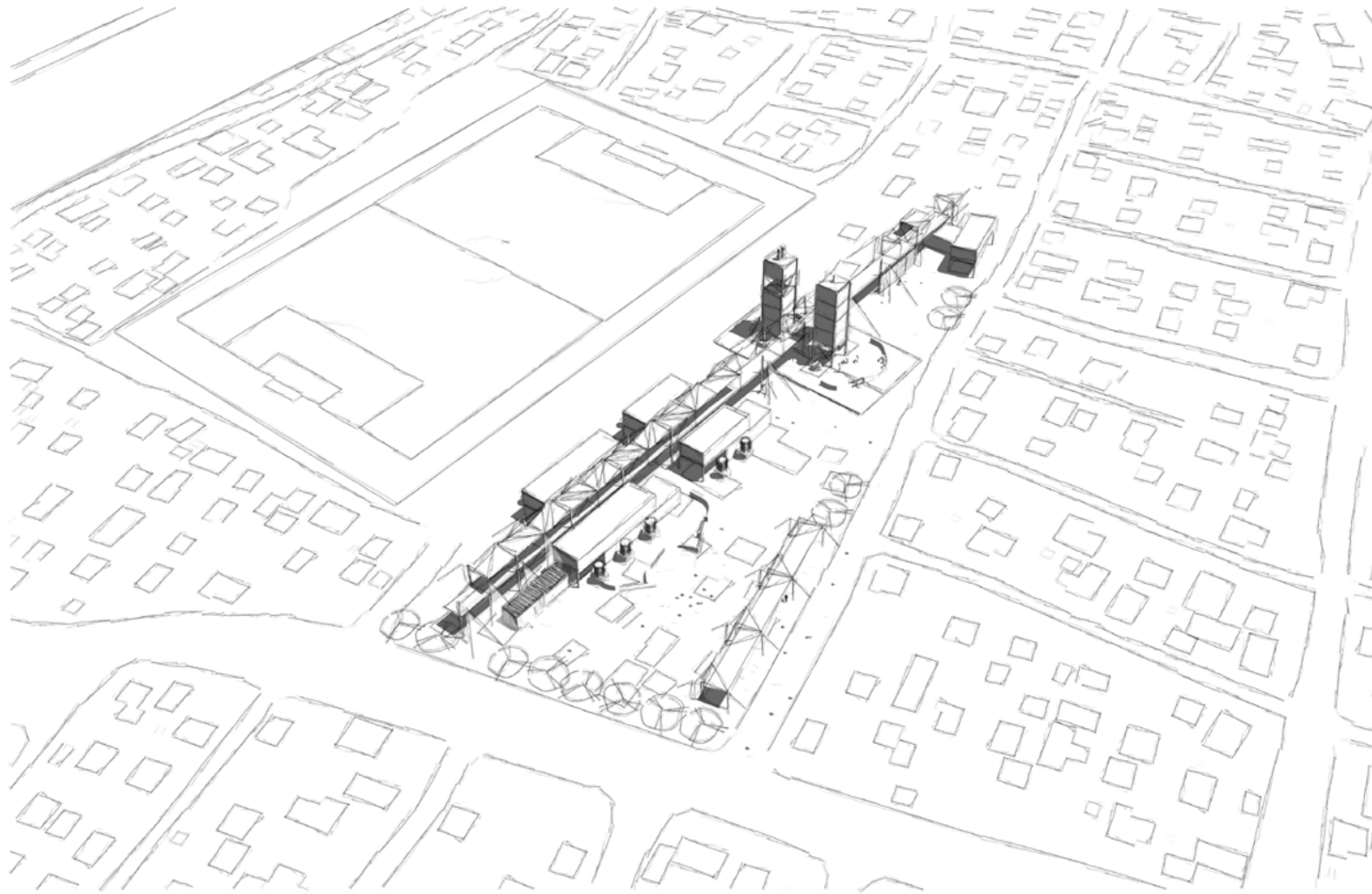


Fig. 130 Birds eye view of preliminary design intervention





Fig. 131 Perspective of preliminary design intervention

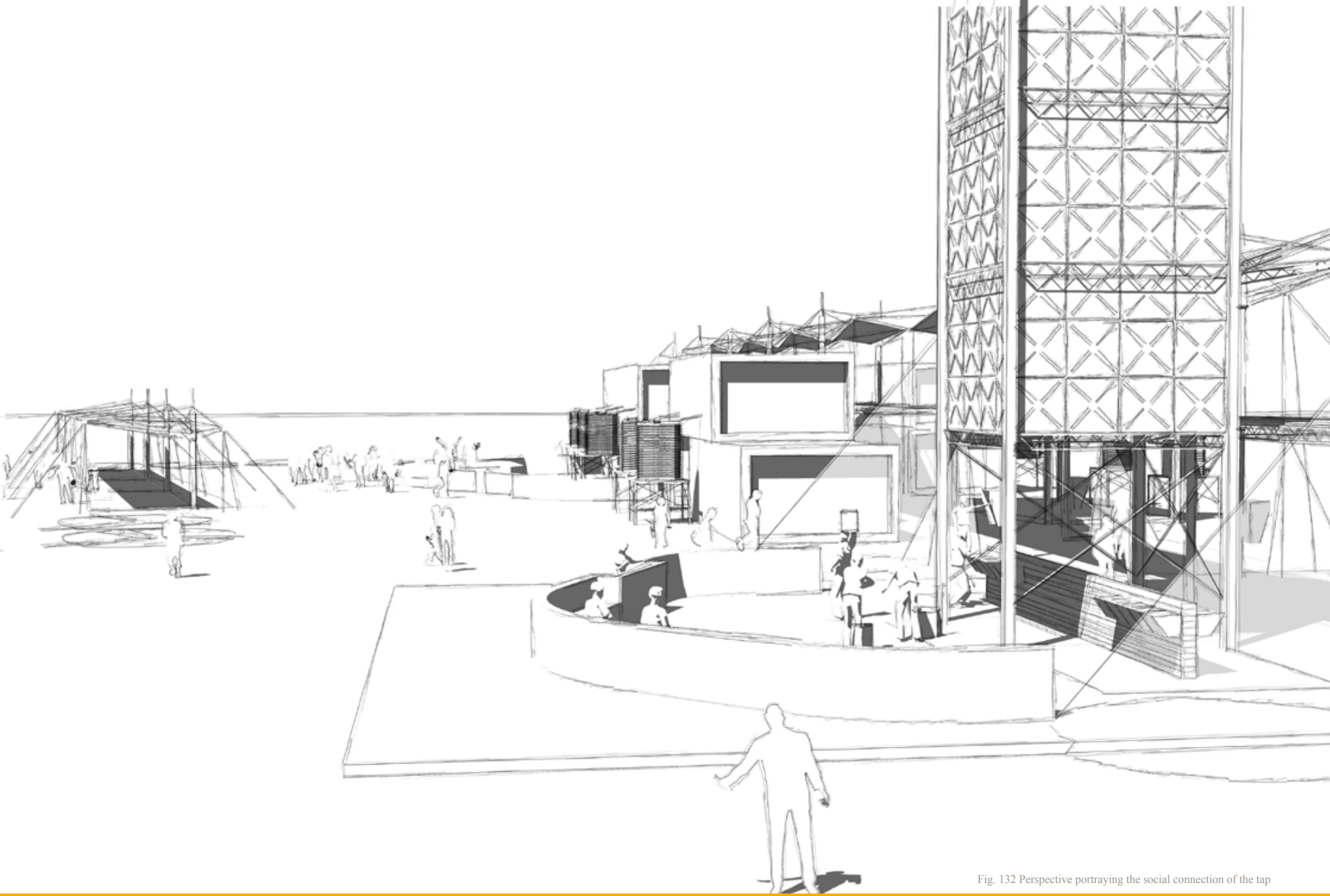


Fig. 132 Perspective portraying the social connection of the tap