site location + context
location

Geographically, South Africa is located close to some of the most impoverished nations in the world (World Hunger Map), making it possible to exchange agricultural solutions to those in need. South Africa also has the adequate infrastructure (World Bank, 2009), in terms of airports and highways, making it possible for foreign nationals to visit and observe the programs and progress of the facility.

South Africa will act as a good host for a research facility given the country’s stable economic growth in recent years (World Bank, 2009) and the country’s growth in research and development (Department of Science and Technology, RSA, 2009). The country has the potential resources to make a significant contribution and successfully act as host to such a facility.

The city of Pretoria, Tshwane is ideal for the location of the proposed facility. Research institutions such as the Council of Scientific and Industrial Research (CSIR) and the Agricultural Research Council (ARC) are located in Tshwane, and could support the facility in expanding its research and development programs. The greater Tshwane municipal area will also allow for the implementation and monitoring of research on various scales of agriculture.
scale: rural
population density: sparse
commercial agriculture

scale: peri-urban/suburban
population density: low to medium
community gardening
small-holder farms

primary focus of research

scale: urban
population density: medium to dense
urban community gardening
micro gardening
Fig. 18: Potential for agriculture on rooftops in Pretoria.
When a figure-ground map of Pretoria is studied, and building densities are compared to open land, it becomes evident that the North Western quadrant of Pretoria is in need of development. The area has plenty of vacant lots and servitudes that can be developed into gardens for agriculture. The Steenhoven-spruit also flows through this area and could potentially be used to supply the activities of the facility with water. Considering these factors, the area becomes a viable location to place a radical urban intervention and the proposed facility that will research food production in urban areas.
fig. 20. existing context

- Prince's Park
- Paul Kruger Church
- Paul Kruger House
- Bonte Sake
- Historical Tobacco Sheds
- Antique Store + Light Industrial Buildings
- Historical Houses
- Steenkloof Spruit
- Kruger Park Apartments
- Voortrekker Street
- Sabart Park Apartments

Ideal site location

Heres Acre
STUDY AREA
When the figure ground is studied, it is clear that the dissipating urban fabric towards the West is insensitive to nearby Church Square, still generally characterized as the city center. The Reserve Bank and the infamous Kruger Park flats are both equal distances away from Church Square, although they seem to be in different cities in reality. The study area is characterized by low-rise, low-density and low-income urban fabric, normally associated with light industrial urban zones. Apart from these, five tall and neglected residential towers stand isolated from the city fabric. They are remnants of past failed attempts to successfully densify the North Western quadrant of the city.

urban context_
According to Jordaan (1989), the city blocks of Pretoria were laid out in a rigid Cartesian grid from the center point of Church Square, outwards on a North-South, and an East-West axis. The axes were ordered to correspond to the sun’s cosmic path and the location of the openings in the mountains.

The North-South axis or cardu (Paul Kruger Street) terminated in the Daspoort mountain range to the North and Schurweberge mountains to the South. The East-West axis or decumanus terminated at the crossing of the Apies River at the Eastern side and the Steenhoven-Spruit at the Western side.

Water from the Apies River and Steenhoven-Spruit were reticulated into open ducts (leivore), and subsequently served the grid with water for private agriculture. Regulations at the time stated that owners of erven had to wall-in and cultivate their property. According to Jordaan (1989), this was a tradition of combining the useful with the beautiful.

When considering the above, the proposed intervention should be sensitive to the historical significance of Steenhoven-Spruit as an urban element and as a feeder to the city.
The intervention must celebrate the historical significance of Steenhoven-spruit as a traditional provider to the city and its people’s everyday needs, a natural boundary or edge for the city.
An open veld next to the channel functions as a public green space, although it has no formal public facilities. The veld and spruit play host to a number of activities such as playing soccer, gathering under large trees throughout the day or around small food stalls and fires in the early morning. A substantial number of individuals also wash and bathe in the river. Permanent footpaths along the channel testify that the spruit also acts as a connecting pedestrian route to and from Marabastad.

A number of controversial issues surround the Kruger - and Schubart - Park apartment buildings. According to the Anti Privatisation Forum (2008), Schubart Park has been mismanaged and neglected by the Tshwane Municipality and the Tshwane Housing Company. The buildings have been neglected to such an extent that it has created unfavorable and dangerous living conditions for the occupants.

The Kruger Park complex received international media coverage when the building was forcefully evacuated on the 22nd of July 2008. According to News 24 (2009), the evacuation was assisted by a private company, known as ‘The Red Ants’, notorious for their violent evacuation tactics. Residents resisted the evacuation, as they were given no alternative means of accommodation. The building was partially set alight, five people died and some residents were evacuated from the top of the building by rescue helicopters.

Kruger Park is currently being renovated, although it is uncertain if the building is completely vacant or how the municipality will manage the re-occupation thereof.

Schubart Park residents, estimated at well above 10 000, refuse to evacuate the
premises for renovation, since they argue that the Municipality is not supplying them with adequate alternative accommodations (News24, 2009). The living conditions of this residential complex is similar, if not worse, than that of Kruger Park. Residents claim that there is no sanitation or electricity in parts of the complex. Resident representatives and the Mayor have tried, but failed to reach a compromise. The initial evacuation was for early 2009, but has been postponed. The residents are prepared to fight for their homes. (Eye Witness News, 2009)
site views_

fig. 25_ view of kruger park from steenhoven-spruit
fig. 26_ schubart park plinth
fig. 27_ shabeen behind kruger park
fig. 28_ view of open veld next to the steenhoven-spruit

fig. 29_ view of kruger park from antique store

fig. 30_ view of kruger park across open veld next to steenhoven-spruit