infraTECTURE
transforming infrastructure into architecture,
a services building in Pretoria CBD
by I. Behrens
Sky scape, a vertical extrusion of the city.
Infratecture
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Dankie Ma, Pa en Jan julle het deurlopend my arms omhoog gehou. Aan my Vader al die prys en eer.

Amen

Programme

Supplementary infrastructural building (amalgamation of functions; parkade, loading yard, cyclist facilities, commercial, energy supply, water supply, waste disposal & public-social spaces)

Site

Pretoria CBD North-east Block, Between Andries-, van der Walt-, Church- and Vermeulen str.

Client

Tshwane Metro Municipality in Public Private partnership

Theoretical Premises

Uniting urban infrastructure and sustainability to irrigate urban cores

Main Research question

Can a building be designed as part of infrastructure to supply resources like water, electricity and waste removal not only for itself but for the surrounding existing urban fabric as well?

Architectural issue

Re-addressing the nature of services in Architecture, imagining infrastructure as architectural space
Driving past farms and small towns I am almost always charmed by the occasional wind-pump or remnants thereof. A wind-pump is a symbol of so many tales and trials. In many settlements the absence of a wind-pump would coincide with the absence of life.

The wind-pump is a constant reminder of man’s dependence upon nature. This tall, feeble machine spins obediently to the moods of the wind, reaching deep into the earth to lure its cool clear water towards the rays of the sun. To the people in these settlements, the reality of their dependence stands tall in their backyards. Thus they are aware of the blades in the sky, turning or waiting, they are thankful for wind, rain and the sun, they know that these elements sustain their lives.

In the urban environment our water and electricity ‘appear’ from somewhere we are not familiar with. The moods and tides of nature is cured by the flick of a button or the draw of a curtain. We have no wind-pump to remind us when to slow down or well up. We have no idea that the wind has stopped blowing.
How does one appropriately design a self-sufficient building in the existing urban fabric without damaging historical urban centres? The role of architecture is to adapt, to not only serve and support people but, also to support its context and surrounding architectures. Thus a new typology needs to be created, by designing the architecture of ‘giving’. By looking at how resources travel between and through buildings, one could start to re-address the nature of services within architecture, starting with the outer workings of infrastructure. Through experimenting with the potential of creating space & place as an architectural expression via the re-imaginative design of infrastructure, the existing urban fabric can be served in a sustaining manner. The design is of a services building housing a parkade for conventional and electrical cars and bicycles which generates its own energy, harvests and stores water for itself and surrounds, process waste and sewage and cycles on site resources.