



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



figure 10:1
An Oompa-Loompas from the 2005
Warner Bros. movie *Charlie and the
Chocolate Factory*



figure 10:2
Pigs a bathroom

Background to the Problem

Cuba's economy collapsed at the end of the twentieth century as the Soviet Union started to unravel. Subsequently, extreme fuel, food and material shortages endangered everyday life. In the capital city, Havana, were the scarcities hit the hardest, Cubans called the situation 'the Special Period'. (Cardinal-Pett 2004:94)

It was in this context that urban farming and food education appeared. When food failed to arrive in the city, farms appeared in vacant lots and urban parks. Compost was piled over rubble in urban neighborhoods and planted with seeds. Pigs were kept on leashes or inhabited bathtubs. Parks were transformed into urban farmlands. The city went 'green' out of need.

Today, the scarcity of food of the Special Period may be over, but it has transformed Cubans mindsets and Havana's urban fabric. Schools and factories are linked to programs educating and providing food for students, teachers and workers.

Havana's Institute of Physical Planning is a government organization that was set up to educate and lend space to organizations that grow food in the city. The Cuban Revolution made a point of educating urban dwellers in rural values and knowledge. Consequently, most Cubans know where their food comes from and how to harvest and prepare it for themselves.

Naturally, imitating this idea directly in South Africa's capital city is problematic, in terms of creating and establishing a local market, as well as of identity and mindset. However, South Africa, with its growing trend of urbanisation, certainly does not exist in isolation. The Pretoria CBD currently has an unemployment rate of 12% and a 'not economically active' rate of 40% for the individuals aged from 15 -65 (Municipal Demarcation Board S.A.).

The idea of the project is to investigate the concept of an educational place of food production and consumption, with space for a sense of entrepreneurship.

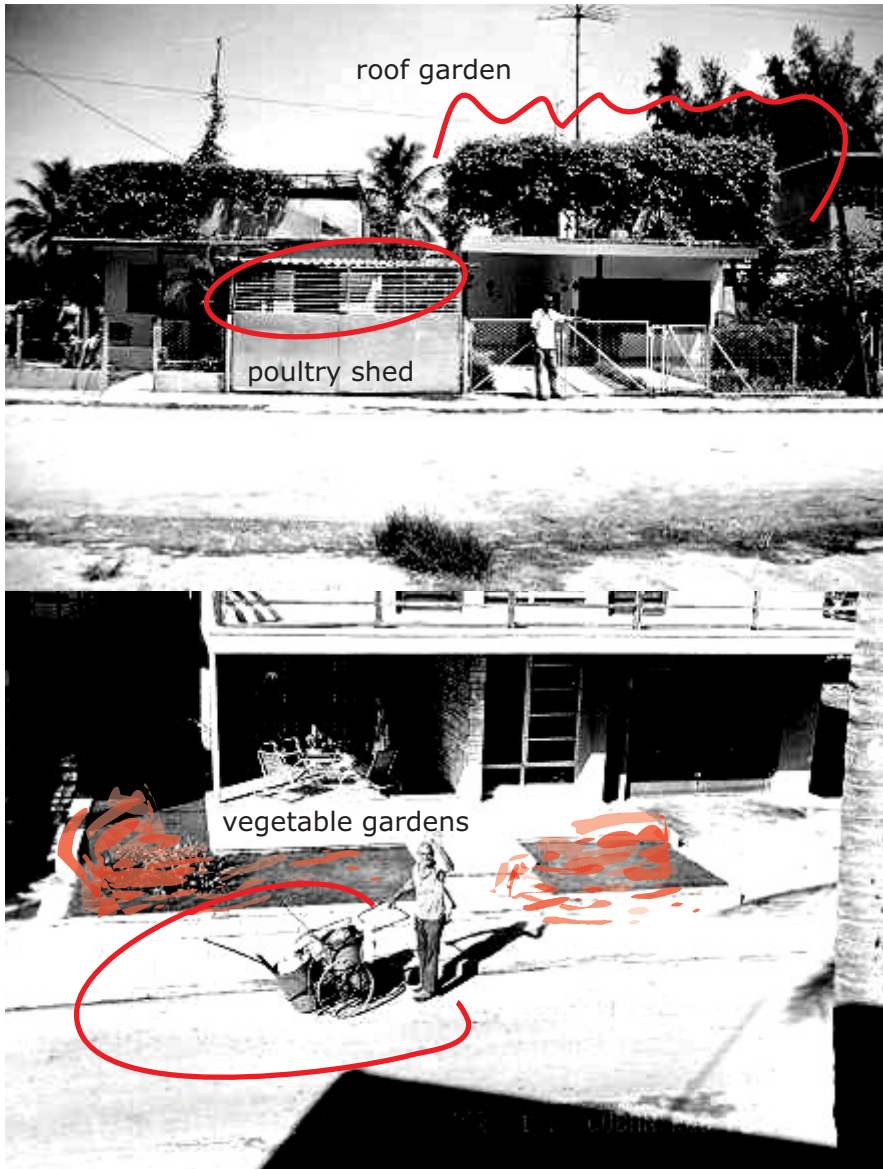


figure 10:3 (above)
Santa Fe, Havana -
rooftop garden

figure 10.4
Typical suburban
house in Havana
before permaculture

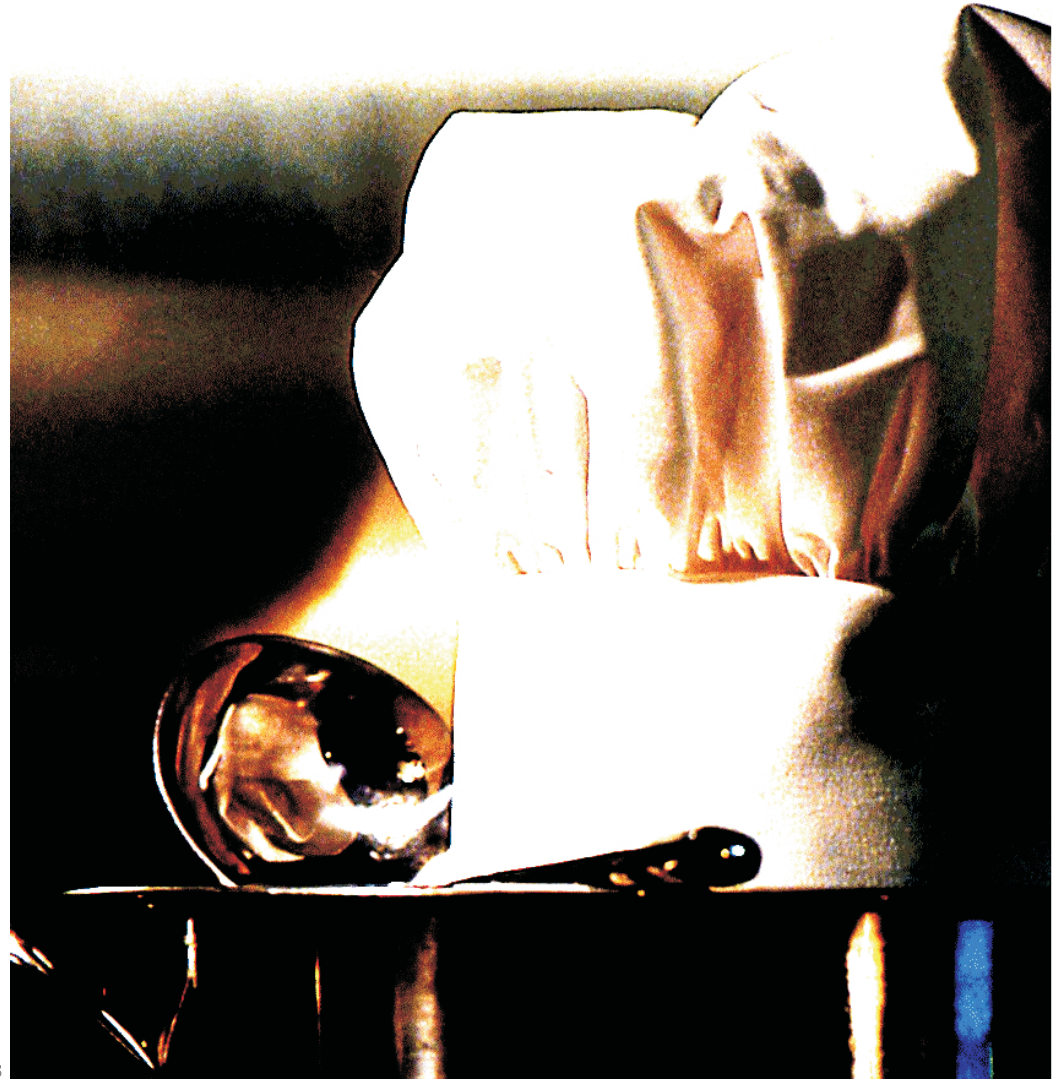


figure 10:5
A chef's chief accessories

Vision

The project vision is to create an iconic educational building, serving as a prototype way in which food can be experienced and grown in the urban areas of South Africa. The building will be an expression of the rituals of eating food and of eating architecture.

Problem Statements

Real World Problem: primary

In the face of urbanization and Westernisation, families across the globe are abandoning ancient farming methods, diets and dining habits. Food production today has transformed most of world, but more examples are needed to educate city-dwellers on how to grow and prepare their own food in the urban context.

We can get ideas from ancient and country cultivation preparation methods; combined with our technology these can be applied in our increasingly complex urban context, educating our society for our ever-accelerating and naive consumption of the Earth's resources.

Schools, business groups, government institutions, and both informal and formal trades can undertake programmes in understanding and applying culinary knowledge in the urban context.



figure 10:06
Urban farming in Tokyo

Real World Problem: secondary #1

As part of the educational programme for Biotechnology and Food Technology (cookery schools), students have to complete a certain number of practical hours in order to fulfill the requirements of their course (Du Rand 2007: interview). Currently, promotion of their food projects is extremely scarce, if not nonexistent in the Tshwane metropolis. Although cookery schools exist, these facilities are located mostly on the edge of the CBD, or within the various tertiary campuses. The facilities are outdated and accessible on unpredictable schedules to small groups of visitors. A real need exists in the contemporary environment for cookery schools to equip their students with entrepreneurial skills while promoting their cooking to paying customers.

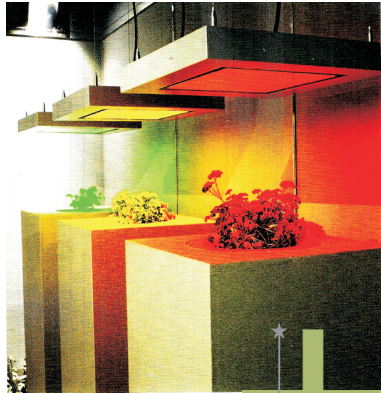


figure 10:07
Herbs growing in a basement in Tokyo



figure 10:08
Collage of informal trades and accessories

Real World Problem: secondary #2

Unlike the environmental department of Johannesburg, which has embarked on a drive to ensure that food sold in the city is safe and disease-free, the Pretoria CBD has, to date, not encouraged hawkers to observe hygienic food preparation. Should a hawker in the Pretoria CBD require any information on this, he or she has to order a 20-page booklet entitled 'Food Safety for Informal Traders' from the environmental health department, or participate in sessions of at least two hours – offered in Johannesburg (Dhiliwayo 2002)



This is the nerve centre of the whole factory, the heart of the whole business! And so beautiful! I insist upon my rooms being beautiful! I can't abide ugliness in factories! In we go, then! But do be careful, my dear children! Don't lose your heads! Don't get over excited! Keep very calm! (Dahl 2001:87).

figure 10:09
Mr Wonka from the 2005 Warner Bros. movie *Charlie and the Chocolate Factory*

The Client

The Tshwane University of Technology (TUT) has been established as the principle client for the project.

According to its 2005 strategic plan, an increase in academic research and innovation needs to be established and reflected in all its seven faculties.

In order to maximize income from its research and to commercialize its outputs, TUT has established an Innovation and Technology Transfer Office. This office is aimed at patenting and licencing business development and innovation.

The Health and Social Development Department of Tshwane, has been identified as the secondary client. It is proposed that, like Johannesburg, the city of Tshwane too will adopt a programme for educating hawkers on food and safety-related subjects.

TUT is divided into seven faculties spread out in different locations throughout Tshwane.

The seat of each faculty is indicated in brackets below:

- Faculty of Economics and Finance (Ga-Rankuwa Campus)
- Faculty of Engineering and the Built Environment (Pretoria Campus)
- Faculty of Humanities (Soshanguve Campus)
- Faculty of Information and Communication Technology
(Soshanguve Campus)
- Faculty of Management Sciences (Pretoria Campus)
- Faculty of Science, incorporating Natural Sciences, Health Sciences and
Agriculture (Arcadia Campus, Pretoria CBD)
- Faculty of the Arts (Arts Campus, Pretoria CBD)

The idea proposed in this project is to add a new central building in the Pretoria CBD to act as an iconic image for TUT's principals and vision.

Requirements

The requirements of the project for the Department of Biotechnology and Food Technology under the faculty of Natural Sciences and Agriculture for TUT are envisioned as including an integrated approach to structure and the innovation of cultivating, preparing and consuming of food. The Tshwane University of Technology (TUT: 2007) requires that students should be equipped with an entrepreneurial focus in order to become job creators and entrepreneurs. TUT thus requires the establishment of prosperity through the stimulation of innovation, creative thinking and the physical environment.



General needs interpreted by author for the
Department of Biotechnology and Food Technology:

- Access to an available clientele for food promotion
- A pleasant and educational environment for visitors, staff and students
- Easy access to public transport
- Adaptability
- An innovative and recognizable building reflecting the university's principles
- Lecture facilities that can be adapted for different usages
- Offices for staff, with private lounges and kitchenettes
- Utilization of the view and natural light on offer
- Security

Users

The Student

The TUT student will undertake various practical programmes, from harvesting to preparing and serving food in order to gain his or her degree. They will gain not only theoretical knowledge, but also practical skills with an entrepreneurial approach.

The Staff

This group will consist of both graduate TUT lecturers and local people with no formal education who have undergone various stages of the food programme offered in the building to educate visitors.



The Informal Trader

This group will be divided into two subgroups.

- The permanent informal trader undergoes various programmes to develop basic entrepreneurial skills and learn hygienic food preparation. The knowledge gained is then implemented back in his or her previous working context.
- The temporary trader's main aim will be to develop his or her entrepreneurial skills through various programmes in order to become a formal business trader of food.

The Visitor

The visitor will frequent the restaurants, kiosks, bars, nursery and public spaces of the building. Visitors are important in the funding of the life cycle of the building. Provision needs to be made for both individuals and groups of visitors using the building.



figure 10:11
A chocolate river from the 2005
Warner Bros. movie *Charlie and
the Chocolate Factory*



figure 10:12
Inside the factory from the 2005
Warner Bros. movie *Charlie and
the Chocolate Factory*

Cookery School: General requirements

A minimum of two lecture rooms for fifty students each must be provided for. It is crucial that these lecture facilities should be adaptable and multifunctional.

Staff facilities should be provided, with offices for lecturers and lockable units for students and permanent staff.

Cookery lecture rooms should be provided for practicals. It is crucial that the design complements the instructor's cooking, and that he or she be visible to the audience.

Circulation

Circulation inside the building is an important issue. In multifunctional buildings, different users have different agendas. It is important to separate staff from the public on certain routes. The users must be able to navigate the building with ease, and wheelchair users should be catered in all areas.

Sustainability

Social, economic and environmental sustainability must be achieved in both the short and long term. The main aim must be that of an informative precedent for how an urban landscape can be transplanted onto the urban fabric, creating jobs, saving energy and re-using and sorting waste on site. The building should also aim to respond in a sustainable way to the local climate of its context.

The food process should consist

1) The cooking circle

- Goods inwards: food supplies, service yard.
- Storage
- Processing
 - preparation
 - cooking
 - serving: food transferred to circle 2
 - equipment cleaned and prepared for re-use
- Goods outwards: disposal of waste

2) The servery circle

- Goods inwards: supplies purchased
- Storage
- Processing
 - Servery: food added to dishes
 - Moved to table; food moves to circle 3
 - Returned from table - dishwashing
 - Storage for re-use
- Goods outwards: breakages and disposables

3) The customer circle

- Customers inwards: parking reception cloakroom
- Storage: bar, waiting area
- Processing
 - Food transferred from circle 2
 - Drinks provided
 - Billing and payment
 - Customers outwards, coats returned.



figure 10:13
The food process cycle