Fig. 1.1 Photograph of a part of the west facade of the Musaion with the Humanities tower in the background. [Author,2008].

1.theory

1.1 Abstract

The University of Pretoria, as an ever changing institute of higher learning, is celebrating its centenary in 2008. This occasion provides an ideal platform for rethinking its past and possible future. Past developments on campus have achieved constructive form; however, the proposed project is a search for and a reconstruction of that which has been lost. In this sense, it represents a projective timeline. Its approach is anchored in the past in order to project into the future.

Contextual research concludes that the University of Pretoria's main campus is set within fixed boundaries which prevent further expansion in any direction. The possibility exists to expand and integrate the main campus into the Hatfield commercial area towards the north. In addition, more satellite campuses could be developed elsewhere. However, this poses great challenges involving various problematic issues. The current situation indicates that the main campus of the university aims to stay within its existing boundaries and to keep functioning as the heart of the institution, instead of attempting integration with the surrounding city fabric. This would maintain comfortable walking distances between facilities, but it will also enforce the idea of a 'gated community'. Statistics indicate that student numbers at the University of Pretoria have almost doubled over the past 10 years. The rate at which the number of first year students is increasing at the University of Pretoria is placing additional pressure on the existing infrastructure. Higher education institutions are constantly faced with the challenge of creating better quality teaching and research accommodation on their campuses. The thesis explores a possible solution with regards to the future expansion of infrastructure and facilities, without losing the essence of campus life and sense of place currently experienced on campus (Lynch, 1981:131). Instead of destroying green spaces and exploiting more resources for expansion, perhaps the greater challenge is to adapt and improve existing buildings to generate benefits similar to those that new constructions would provide.

This dissertation deals with a terminally ill building and the surrounding public spaces that display similar symptoms. It also questions the impact of earlier design methodologies on the layout of the UP campus and its buildings. Traditional qualities of urban place and therefore space are lacking between the Humanities Building and the Department of Library Services. These buildings function as isolated objects, with undefined open areas around and between them. The thesis aims to re-connect the lost space at the foot of the podium of the Humanities Building to the surrounding urban landscape. This re-connection will interpret the site as a gateway to the campus, as well as a threshold towards the Student Centre. The thesis further investigates the Humanities tower as a somewhat outdated symbol of the university and looks into how this building can be adapted to represent the current zeitgeist. The investigation questions how the legibility of current elements and forms could be preserved whilst retaining the iconic qualities of the existing object. The proposed design aims towards a contemporary expression, by transforming one of the most iconic elements of the University of Pretoria campus into a visionary identity.

Beeld Kampus

Jou wêreld, Jou koerant

Ou Lettere kry eerste plek, GW verloor ver

OLD ARTS
(OU LETTERE) 1911

ADMINISTRATION
(DIE SKIP) 1968

HUMANITIES BUILDING
(GW) 1977

2008

1977

TUKKIE-WERF

JAARGANG 3
24 NOMMER 8   DESEMBER 1977   UITGEGEE DEUR: SKAKELAFDELING,
UNIVERSITEIT VAN PRETORIA
HILLCREST PRETORIA 0002

IDEAAL VERWESENLIK

HYSERS

1.1.1 The real world problem - Building in existing fabric

In the publication Building in Existing Fabric Christian Schittich (2003:9) argues that working with existing buildings has long ceased to be only a question of pre-serving historical monuments and the city image; it has become an economic and ecological imperative. Schittich fur-ther states that in a time when resource and pollution issues are intensifying and population numbers are on the in-crease, working with the existing built environment has become the order of the day. This reduces the destruction of more green space and the exploitation of more resources (Schittich, 2003:11). Conversions and upgrades will continue to gain in importance in the near future, accounting for a steadily increasing per-centage of the total building volume.
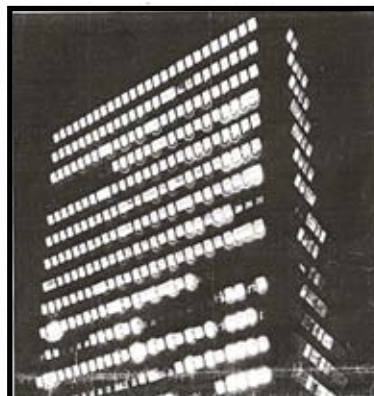
1.1.2 Objective/Goal

The goal of the proposed thesis is to merge two entities into a complex design. The product arranges dissimilar elements into a symbiotic relationship in an effort to create a meaningful whole. This would be done through the adaptive reuse of the existing fabric and implementation of a contemporary tectonic. With the application of appropriate skin/surface technologies this intervention will act as the gateway to the campus and aim to strengthen the identity of the main entrance of the University of Pretoria.

Fig. 1.2 (Top) A headline from the campus edition of a South- African national newspaper that states; 'Old Arts Building gets first place ,Humanities loses'. In a pole done by Kampus Beeld during April 2008 student were asked to choose their favorite and worst building on main campus. The heading clearly informs of who the win-ner and loser was. The first two images of iconic cam-pus buildings are currently being used by the University in their marketing media to celebrate the university's centenary existence. The Humanites building however fail to feature. [Kampus Beeld, UP & Author,2008].

Fig. 1.3 (Bottom) In contrast to the above headline this newspaper heading and photographs from a 1977 local campus newspaper of the opening and celebration of the Humanities building on 28 Octo-ber 1977. Humanities building architect Brain San-drock on the left hand side of the photo. The head-line states; 'Ideal Achieved'   [Tukkiewerf ,1977]
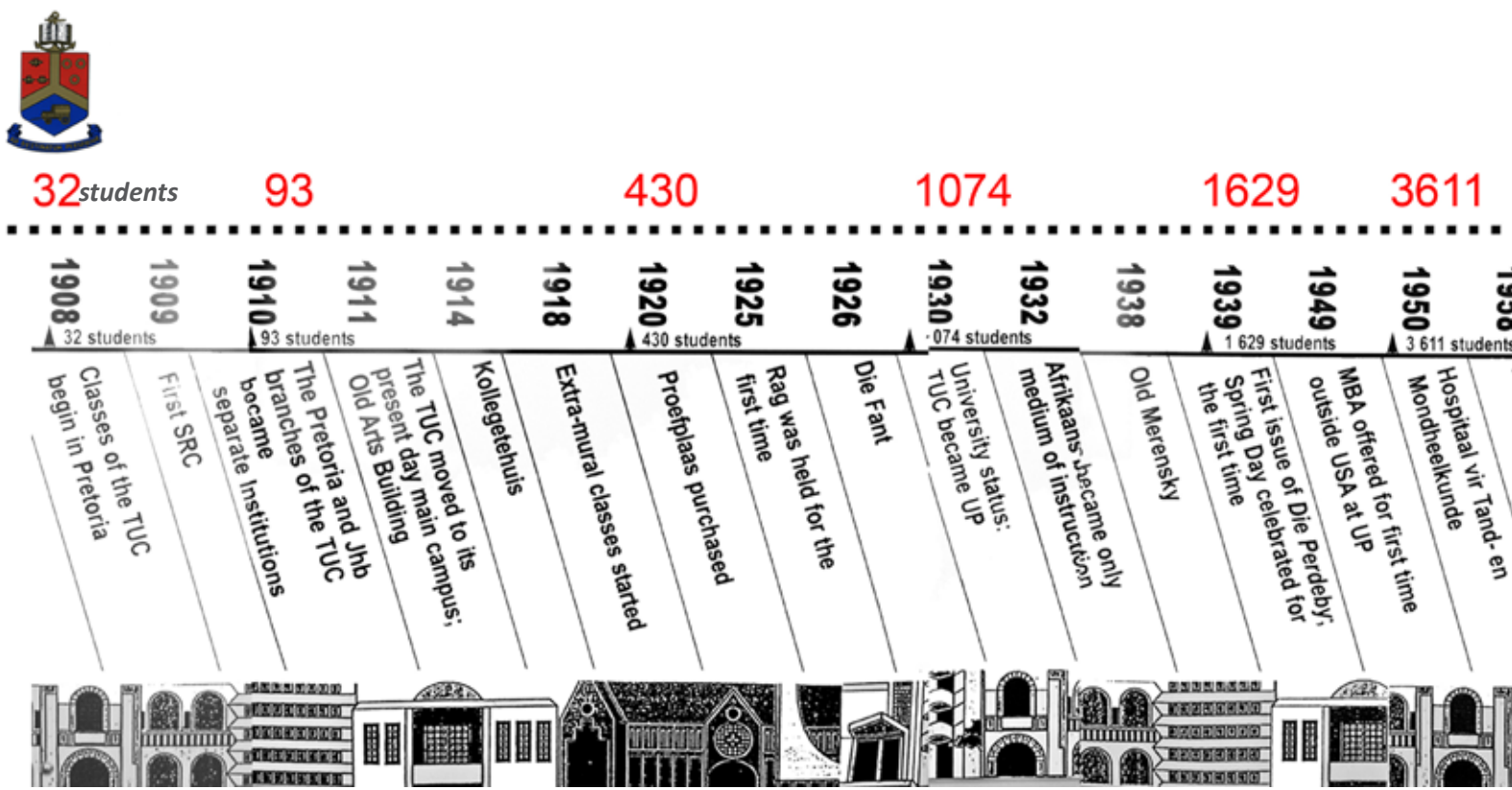
1.1.3 Research questions

1. How can the proposed intervention be implemented to create a new building while retaining the integrity of the existing one?
2. How can the existing fabric be transformed and manipulated to create a new identity or 'face' for the university?
3. Can architecture heal a sick building?
4. How can the visual perception of the building skin/surface be designed to create identity and adapt to change?
5. How can the site as entrance or 'gateway' to the university be improved to fit the current time and vision?
6. How can the genus loci of a place be maintained through expansion, densification and constraints, put in place by physical boundaries?

1.1.4 Assumptions and delimiter

- Assume that the densification and expansion of the university will happen within its current fixed boundaries.
- Assume that the main entrance of the university will remain in its current position at the crossing of Lynnwood Road and Roper Street.
- Assume that current facilities can temporarily be housed elsewhere while building works take place.
- Assume that underpinning/propping/temporary structural support can be put in place on the existing structures (Humanities and Department of Library Services) to accommodate the building works.
- Assume that funding would be available to take on a project of this magnitude.

Fig. 1.4 A Time line of the development and growth of the University of Pretoria over the last 100 years, indicating all major events and increase in student numbers. [University of Pretoria ,2008]
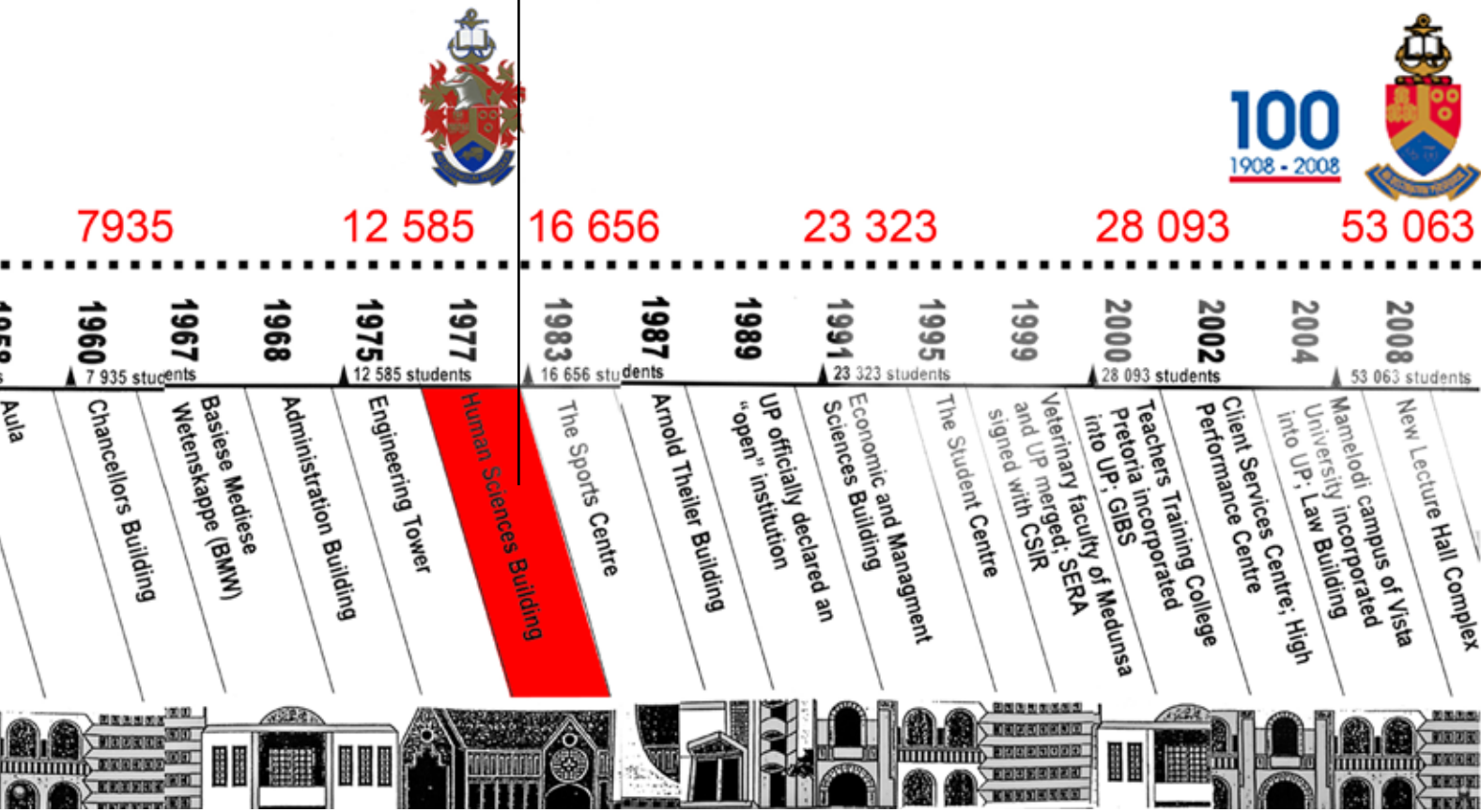

| 32 students | 93 | | 430 | 1074 | 1629 | 3611 |

1908	1909	1910	1911	1914	1918	1920	1925	1926	1930	1932	1938	1939	1949	1950	1958
32 students		93 students				430 students			1 074 students			1 629 students		3 611 students	

- Classes of the TUC begin in Pretoria
- First SRC
- The Pretoria and Jhb branches of the TUC became separate Institutions
- The TUC moved to its present day main campus; Old Arts Building
- Kollegetehuis
- Extra-mural classes started
- Proefplaas purchased
- Rag was held for the first time
- Die Fant
- University status: TUC became UP
- Afrikaans became only medium of instruction
- Old Merensky
- First issue of Die Perdeby, Spring Day celebrated for the first time
- MBA offered for first time outside USA at UP
- Hospitaal vir Tand- en Mondheelkunde

1.1.5 Design Concept

The design concept proposes to achieve the following:
- •Repair circulation routes.
- •Reinstate views.
- •Introduce passive surveillance.
- •Repair and extend activities.
- •Enhance spatial qualities.
- •Enhance the image of the extended entrance to the university.
- •Unlock the limitations set by the object and introduce mediate planes between strong horizontal and vertical edges.
- •Repair the urban landscape.

KING KONG

HUMANITIES

GODZILLA

Fig. 1.5 A photo collage comparing the Humanities Building with iconic Hollywood monsters. [Author,2008].

100
1908 - 2008

| 7935 | 12 585 | 16 656 | 23 323 | 28 093 | 53 063 |

1958	1960	1967	1968	1975	1977	1983	1987	1989	1991	1995	1999	2000	2002	2004	2008
	7 935 students			12 585 students		16 656 students			23 323 students			28 093 students			53 063 students

Aula

Chancellors Building

Basiese Mediese Wetenskappe (BMW)

Administration Building

Engineering Tower

Human Sciences Building

The Sports Centre

Arnold Theiler Building

UP officially declared an "open" institution

Economic and Managment Sciences Building

The Student Centre

Veterinary faculty of Medunsa and UP merged; SERA signed with CSIR

Teachers Training College Pretoria incorporated into UP; GIBS

Client Services Centre; High Performance Centre

Mamelodi campus of Vista University incorporated into UP; Law Building

New Lecture Hall Complex

1.2 The Idea of University

University: "institution for advanced teaching, conferring degrees and engaging in academic research" - Oxford Student's Dictionary of current English

Campus: " level place, field, plain." - Latin Dictionary.

1.2.1 Introduction

In recent times, significant changes concerning cultural, technological and social matters have transformed most traditional institutions. Universities will undergo major changes as they adapt their activities to meet present and future needs. Although higher education existed around 420BC, with Athens as the centre of Greek science, philosophy and culture, the educational institution is a legacy of the Middle Ages. The term "university" derives from the Latin universitas, meaning corporation or guild. During the Middle Ages university scholars were considered to be a guild of specialists.

1.2.2 Single Building

Hashimshony & Haina (2006) explain that universities evolved from cathedral schools and continued the tradition of the preservation of knowledge that had previously been the responsibility of monasteries. Universities had to develop to meet the new needs of urban society for professional training and were not housed in permanent buildings. They operated from existing buildings, usually no larger than the size of a city block. Where necessary, universities were divided into several unconnected buildings located in different parts of the city (Hashimshony & Haina, 2006). As student numbers increased and more fields of study were added, it became necessary to build buildings to house university activities in one location. The creation of permanent structures marked the establishment of the university as an independent institution (Cobban, 1992). The first important prototype for university design was the single college structure of which Merton College at Oxford is a good example (Figure 1A). Merton College has the distinct architectural structure of a square unit with an internal court. This layout and design reflected the social and educational character of the time. Over time, as the number of students increased, additional colleges were founded, forming clusters (Figure 1B) (Hashimshony & Haina, 2006). Stellenbosch University is a good example of a South-African university with an architectural structure similar to that of the single building.

1.2.3 Campus

According to Hashimshony & Haina (2006), American universities represent the concept of an "academic village" — a term coined by Thomas Jefferson, the designer of the University of Virginia in Charlottesville in 1817 (Figure 1C), to describe universities as communities unto themselves, where shared learning infuses daily life. The Latin term "campus" (field) describes the distinctive physical character of American universities. It was first used to describe the college grounds, but gradually came to denote the entire property, including buildings, and later became the synonym for all university compounds. This typology was subsequently adopted by many designers for campuses throughout the world. The University of Pretoria (Figure 1F) today reflects this typology.

1.2.4 Megastructures

With later campus designs the physical dimensions of the grounds became so large that the distances between buildings prohibited good communication among the separate entities. The university required radically different designs to support the increasing complexity of its organization. Universities were designed as a single large concentrated building, called a "megastructure". A number of university designs were based on this spatial model, e.g. the University of Essex in 1963 (Figure 1E) and the Rand Afrikaans University in South-Africa in 1974 (Figure 1I). The concept of the megastructure never fulfilled their designers' expectations. The megastructure also proved to be a failure in respect of flexibility. (Hashimshony & Haina, 2006).
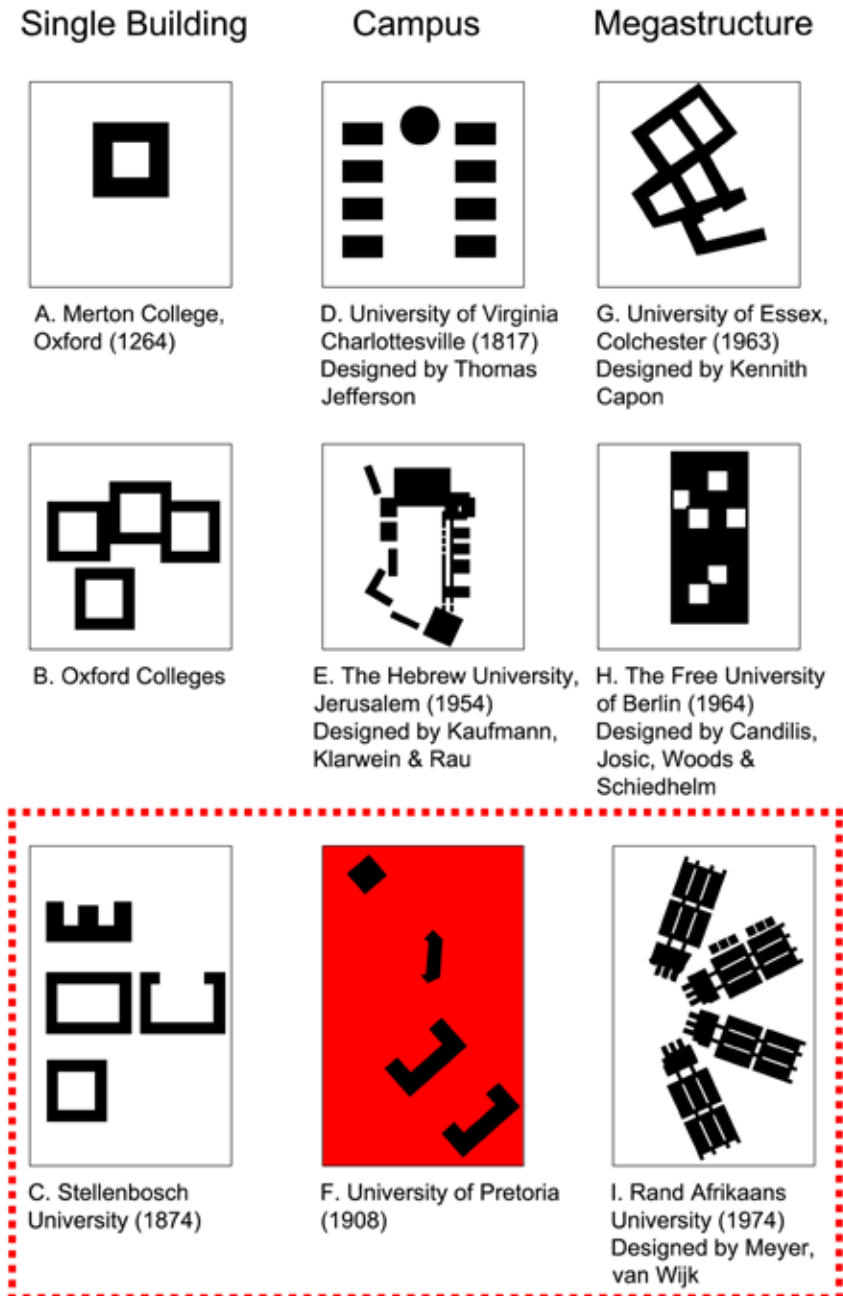
Fig. 1.6 A figure ground study of the evolution of the facilities that houses the 'university'. The study demonstrates where some of the South-African university's fit into a specific typology. Location and time of establishment are some of the conditions that resulted in the different typologies.

1.2.5 Conclusion

The fact that the city of Pretoria was founded in 1855 makes it a relatively new city compared to the Western Cape university town of Stellenbosch, which was founded back in 1679. Over time Stellenbosch University evolved into a 'single building' university with its facilities scattered across town in a number of buildings, whereas the University of Pretoria expanded and eventually developed into an isolated and independent community. Land density and age are some of the factors that played a significant part in the development of the University of Pretoria into its current 'campus' layout. In 1908, when the University of Pretoria opened its doors to the first student, vast areas of land were undeveloped or used for cultivation. The university was fortunate to haveacquired a reasonable area of land by 1921, which by the 1960s allowed the campus to further expand and develop towards the east. Today, Pretoria's peripheries stretch many kilometers towards the east as a result of urban sprawl. The current campus is set within an enclosed environment and acts in isolation towards its surroundings, due to various socio-economic factors. Current densities prevent further expansion, yet growing student numbers increase pressure on the existing infrastructure to expand. This leaves the option to either expand vertically, develop the few green spaces left on campus, or expand and renovate the existing terminally ill building fabric.