[Fig. 24] ARC ARCHITECTS competition winning proposal for the parking garage and traffic congestion solution. For the purposes of this study it is assumed that it will be constructed. The parking garage is located to the east of the entrance. The vehicular traffic is dealt with on the lowest level. Pedestrians and bicycles are ramped over that level. That ramp is covered by a roof and colonnade system.

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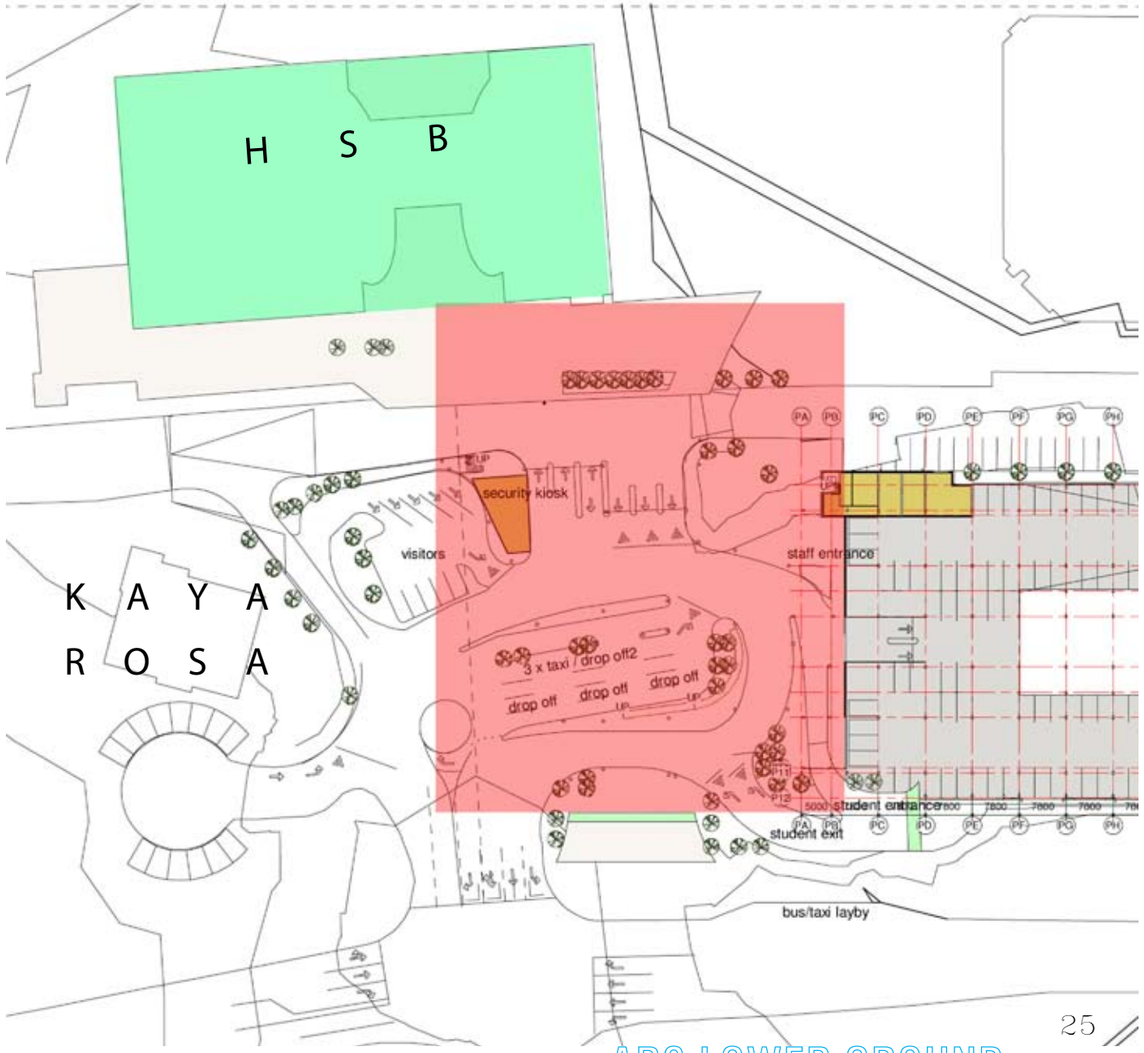
DESIGN CONTEXT

[Fig. 25] the lower ground floor plan by ARC ARCHITECTS. This is the plan which suggest the sinking of the current road level with 1,5m. Resolution of the traffic will happen in this lowered system.

The red block indicates the design context of this thesis on the upper ground floor [fig. 28]. The green block indicates the Human Science Building. Kaya Rosa is indicated with a tag.

DESIGN CONTEXT

The ARC proposal provides design context for the Monster.



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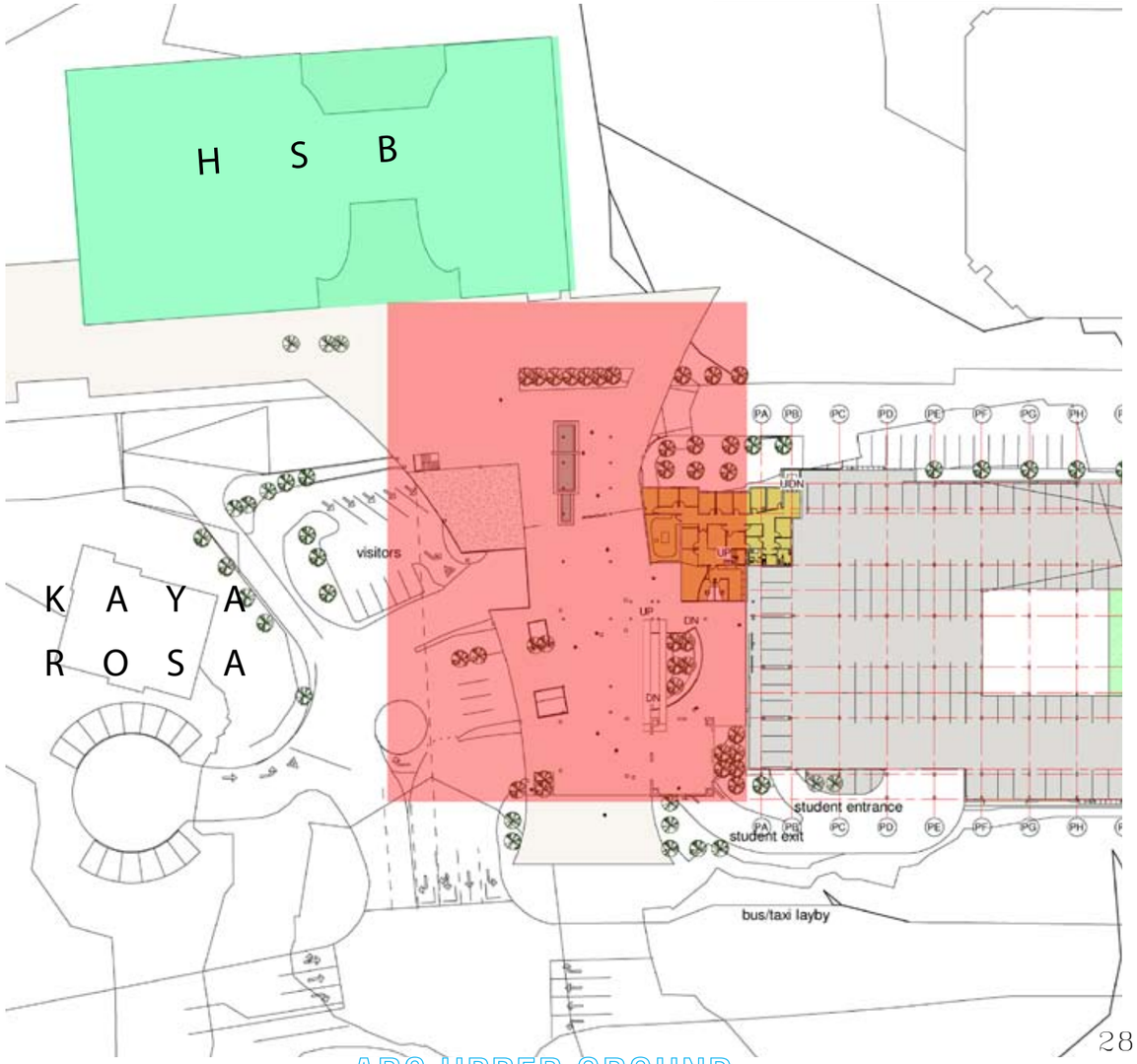


28

ARC LOWER GROUND

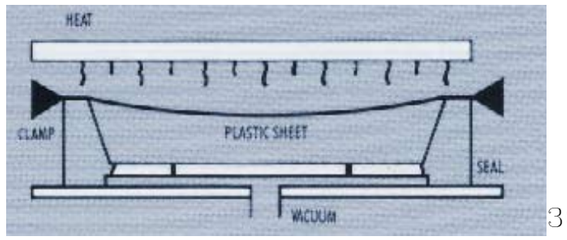
ARC UPPER GROUND

MOVEMENT EXPLORATION - TECHNOLOGY

29

precedent

Hyperbody precedent study, suggesting current technology for movement of buildings, changing its shape and content in real time.



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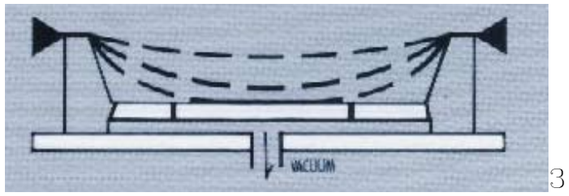

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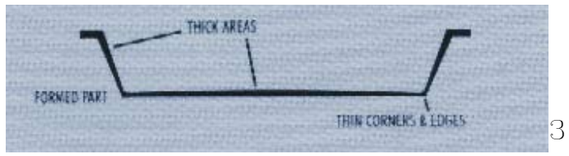

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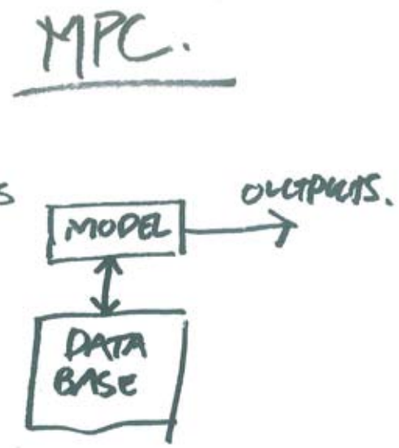
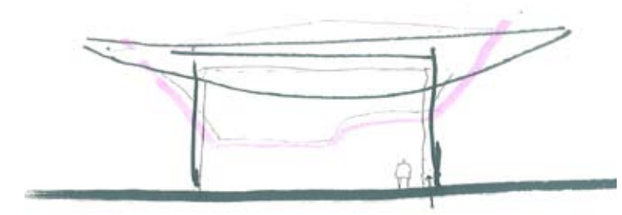
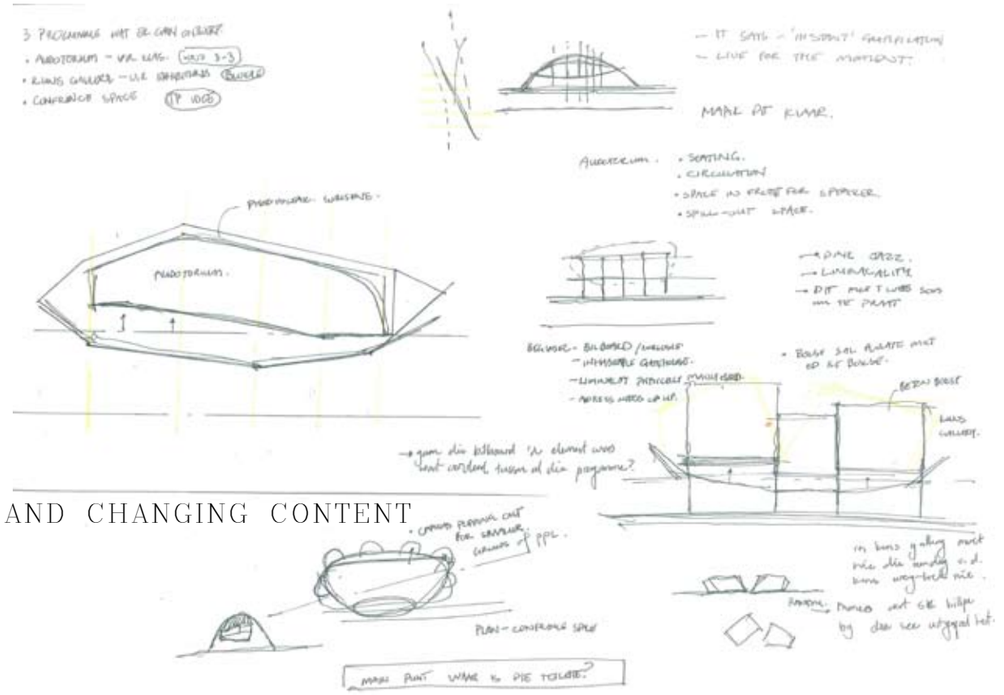
PLASTIC VACUUM EXTRUSION



ENGINEERING SYSTEM



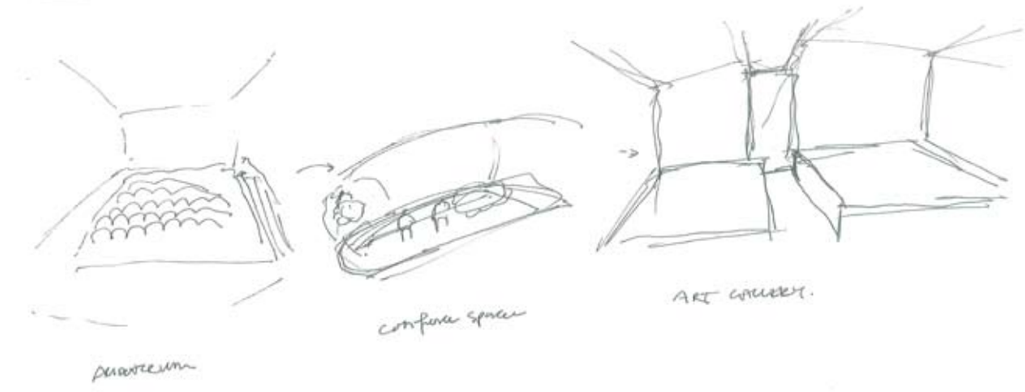
SHAPE SHIFTING GATE HOUSE

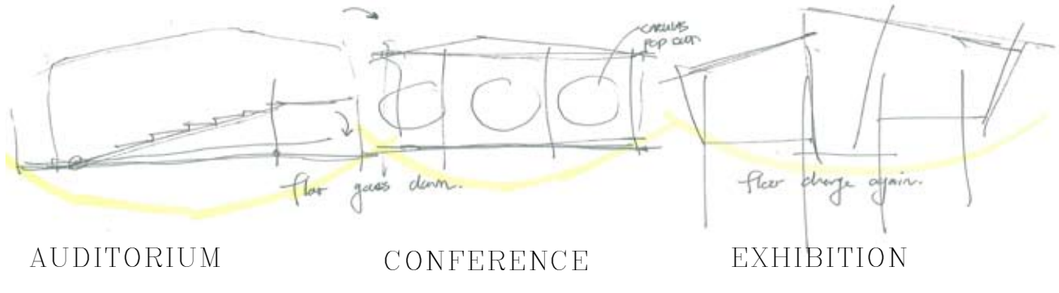


AUDITORIUM AND CHANGING CONTENT

MOVEMENT EXPLORATION - TECHNOLOGY

POSSIBLE PROGRAMS – DIGITAL MOULDS





AUDITORIUM CONFERENCE EXHIBITION

design

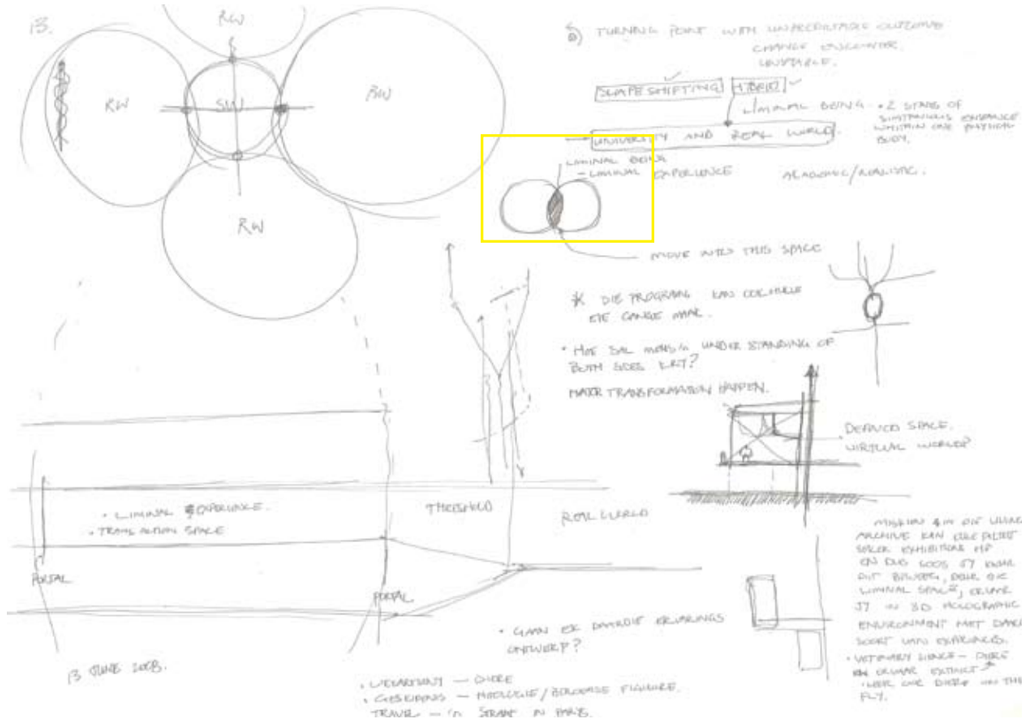
My interest in the moving building technology was renewed, because the inherent flaw of the typology has not been grasped yet. By researching studies on hyperbodies, the technology was found which will make a changing building a reality. This concept is driven by the notion that as student grow and change so should the building.

The Monster is stuck between two phases: moving and changing like the people and workings of campus, being literally unresolved. The answer to a building which will be the physical manifestation of liminality, neither here nor there, is a hybrid.

Model predictive control

The way the shape and content change would work is by a controlled process. Electronic engineers have developed Model Predictive Control Systems. The diagram shows how it works. As the information comes into the model, it predicts what the university needs and pulls these digital moulds from a database.

The idea for the digital moulds comes from vacuum plastic extrusion, which is done with moulds. These digital moulds would be the different functional programs and would be inhabitable, giving the building an element of evolution. Evolution here alludes to the building physically changing its shape and content to fulfill the programmatic needs of the university as determined by the model predictive control system.
This building physically embodies and symbolically suggests how students grow and become more like their study field.



Stage 2 b

The typology was changed from gate house and billboard to a portal. Changing the typology was done to enhance the spatial experience. An aspect of liminality: it is neither here nor there. Thus the idea was explored to remove the users from the rules of both realms, or removal from the built environment.

When these people are removed from the built environment, perspective about both worlds can be communicated. This space must be totally sensorially immersive and be underpinned by transmogrification. Definition of transmogrify (thefreedictionary: transmogrify): “verb, to change into different shape or form, especially fantastic or bizarre”. You would enter into the portal in one realm and suddenly find yourself in-between two worlds, but in a truly different world. A world where there will be holographic entities to interact with, for example a street scene in Paris, France, hosted by the Languages and History Departments.

Space, person and environment would all relate to one another. Technology which would contribute to this concept was investigated. The technologies which were investigated include: holographic imagery, utility fog and programmable matter [appendix 3]. These technologies were investigated to satisfy the following definition of liminality.

‘MAJOR TRANSFORMATIONS occur at crossroads and other liminal places, at least partly because liminality - being so unstable - can PAVE THE WAY for access to esoteric KNOWLEDGE or UNDERSTANDING OF BOTH SIDES. Liminality is sacred, alluring and dangerous.’
(wikipedia: Liminality)

Therefore this portal driven building would address all these aspects. It literally paves the way to knowledge by being at the main entrance of a University, and gives an understanding of both sides. Both sides being the real and the student worlds. You are removed from both sides and shown the connections thereby gaining the understanding.