

03

PRECEDENT
STUDIES



fig.3.1. PERGOLA SPACE (nm&associates, 2007)



fig.3.2. PERGOLA SPACE VIEWED FROM OUTSIDE (nm&associates, 2007)



fig.3.3. PLAN (nm&associates, 2007)

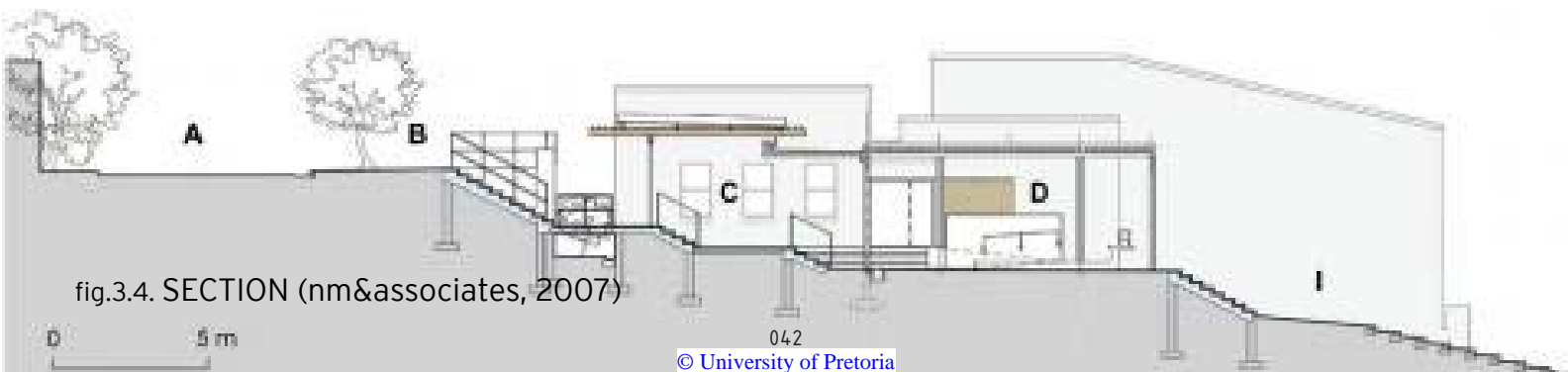


fig.3.4. SECTION (nm&associates, 2007)

EXTENSION TO LECTURE FACILITIES AT ELSENBURG AGRICULTURAL COLLEGE.

by NM&Associates, planners and designers.
2005-2007

The context in remodelling, according to Rodolfo Machado, is defined by the existing building where the architect or designer imagines to intervene. In his essay for Progressive Architecture journal, "Old buildings as palimpsest. Towards a theory of remodelling", (Machado, 1976:49) explains the context that the existing building allows for the architect:

In remodelling, the past is represented by the old object itself. But this object is also the most immediate context of the work of remodelling; the past pervades the building and the building itself becomes the primary level of the context of intervention.

This project is the result of the "government's recognition of the importance of investing in agricultural training and education." (NM&Associates, 2007) The buildings were designed and formed with a few key considerations that informed the process of the design. The conceptual ideas were the following:

- THE CAMPUS AVENUE: this avenue plays a key role in establishing a vibrant pedestrian atmosphere and could inform the future development of the campus.
- THE ELSENBURG FARM LANDSCAPE: the landscape which defines the primary context of the building holds the key to the structure and spatial opportunities. This informs the organisation and how the buildings are situated in the landscape. The buildings are simply a series of white walls set into the slope of the site that frames the views of the vineyards.
- THE LECTURE BUILDING AS A SERIES OF LINKED SPACES: in response to the topography and the existing lecture facility, the building is an extension of these structures and parallel to the Campus Avenue. This avenue links all the new spaces with the existing structures and is designed in such a way that it provides for other activities, and not just movement spaces.
- THE TEACHING SPACES AND THE SPILL-OUT SPACES: the lecture spaces were designed to be clearly identified as such, with open green courtyards that allow these spaces to spill out into the Campus Avenue.

The extension of the lecture facilities has provided ample space for teaching on a formal and informal basis. The simple approach to the design process is what made the extension of the lecturing facilities such a great success.



fig.3.5. PHOTOGRAPH OF THE GARKAU FARM AS IT STANDS TODAY. (Funambulius, 2011)

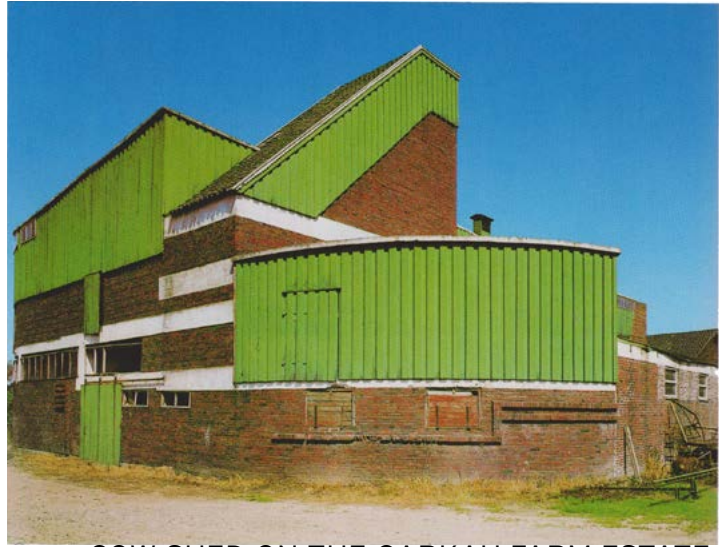


fig.3.6. COW SHED ON THE GARKAU FARM ESTATE. (Gossel and Leuthäuser, 2005:178)

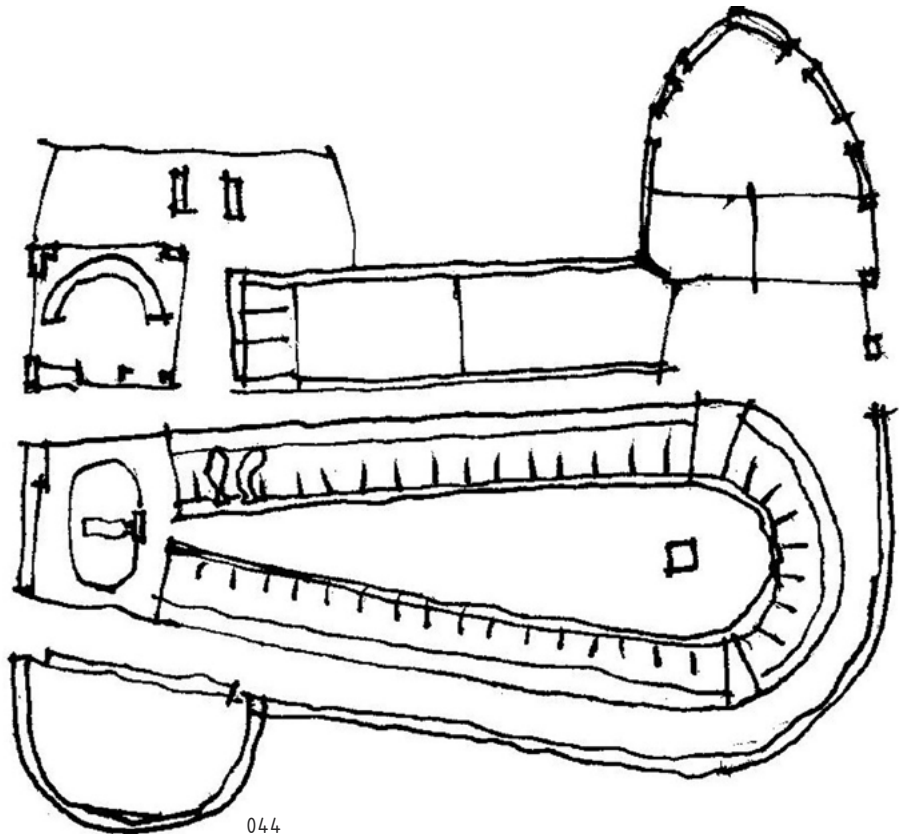


fig.3.7. PLAN SKETCH after (Gossel & Leuthäuser, 2005:178)

COW SHED ON THE GARKAU FARM ESTATE NEAR LUBECK, GERMANY.

by Hugo Häring.
1922-1928.

The design of the Garkau Cow shed is probably one of the best examples of Hugo Häring's functional architecture buildings. He was one of the few architects in the 1920s and 1930s who promoted 'organic architecture' (Aschenbrenner, 1999).

The idea was to create an architecture that did not follow a preconceived style, but rather developed according to the needs of use, context, and construction, which would allow the building to gain its own appearance and identity (Botha, 2013:65).

Häring believed that architecture should spontaneously emerge from its surroundings, almost naturally. Unlike the Art Nouveau movement, Häring designed the building for the function and the environment it was situated in: the form follows function ideal, rather than the function following the form.

In this case the building was designed to serve the function of feeding the cows and how they would require to use the space.

The heart of the "organ-like" stall is the pear-shaped byre for one bull and forty one cows (Gossel & Leuthäuser, 2005:178).

The building is made up of concrete, steel, brick and wood. These materials work in seamless harmony in the manner that Häring used them in the construction of the cow shed. In a brief description by Gossel & Leuthäuser (2005:178), one gets to understand the construction poetics:

The supports for the steel construction lie inside the building. Parts of the horizontal frame appear as bright strips in the brickwork. Originally left neutral, the vertical weather boards on the hay lofts and silo were painted a bright green colour in the late 1930s.

The Garkau Farm Estate is a testimony to a time when design considered the requirements of animals before the human requirements, designed from the functional requirements of the interior spaces which determine the form of the exterior of the building.



fig.3.8. SITE MAP (gadi.agric.za, 2015)



fig.3.9. AERIAL PHOTOGRAPH (gadi.agric.za, 2015)



fig.3.10. AUCTION AND HANDLING PENS (Mentz CJ, 2016)

GROOTFONTEIN AGRICULTURAL DEVELOPMENT INSTITUTE, MIDDELBURG, EASTERN CAPE, SOUTH AFRICA. established in 1911-

When the Union of South Africa was established in 1910, the Grootfontein farm together with some military buildings and other equipment was purchased from the British Government by the last Minister of Agriculture of the Cape colony, Mr FS Malan. On 7 February 1911 it was converted into an agricultural school and experiment station. (gadi.agric.za, 2015)

Today the agricultural school strives to be a world leader in training and research in small-stock and agricultural production in arid and semi-arid regions. They focus on agricultural education and training highly-skilled lecturers, executing innovative research in partnership with industry and producers, and aim to develop effective extension programmes that expand the capacity of farmers to innovate and engage in sustainable production practices for household food security and wealth creation in rural communities (gadi.agric.za, 2015).

The facilities at the Grootfontein Agricultural Development Institute provide for all the education and training to take place in specific buildings. The programme consists of various classes, and most of these classes are in separate buildings:

- **ENGINEERING BUILDING:** short courses are held here in building craft (masonry and carpentry), mechanics (petrol and diesel engines, as well as farming equipment), and metallurgy (gas and arc welding).
- **FARM SECTION:** this department is responsible for the general maintenance of the 12 000 hectare grounds.
- **AUCTION AND HANDLING PENS:** auctions are held here annually for small-stock animals. The building also functions as a lecture space when it is not used as an auction space.
- **SHEARING SHED:** this is one of the most important classes at Grootfontein. The students learn about classing wool, as well as shearing the sheep themselves. clinical examinations on animals and sample collection take place in this building.
- **“BLIKKESDORP”:** named so after the sheet metal construction of the complex. This is where feeding experiments take place on the institute grounds.



fig.3.11. Wool sorting (Mentz CJ, 2016)



fig.3.12. Farm management (Mentz CJ, 2016)



fig.3.13. Abattoir (Mentz CJ, 2016)

- **ABATTOIR:** this building is a fully accredited abattoir that can handle sheep, goats, cattle and pigs. The courses presented in this building are in grading carcasses and the assimilation thereof. The production of various meat products take place in this abattoir, which is also responsible for the meat of the hostel on campus.
- **WOOL RESEARCH:** this building serves as lecture rooms, as well as education in wool characteristics.
- **PASTURE RESEARCH:** the function of the research is to create an environment where all farmers can learn about the sustainable economic farming industry and to teach them about the latest technological developments in the industry. This building also houses a herbarium, with the regional vegetation being cultivated.
- **SOIL CONSERVATION:** this building houses the Agricultural Economics Department and Agricultural Management. They present short courses in Agricultural Management for farmers and give economic advice and perform feasibility studies for farmers.
- The lecture hall, 'Bergsig Hostel', and Recreational Hall are the other buildings that make up the facilities on the grounds.

This Agricultural Development Institute serves as an informative precedent for the programmatic intentions on the Irene Dairy Farm. The institute will become a place where all farmers of the region can go for sound advice on technology and economic advancements in the field of agriculture. The success of the Grootfontein Agricultural Development Institute is of relevance to the research and courses that take place in the Institute, all of which is informed by their sponsors that make up the industry.

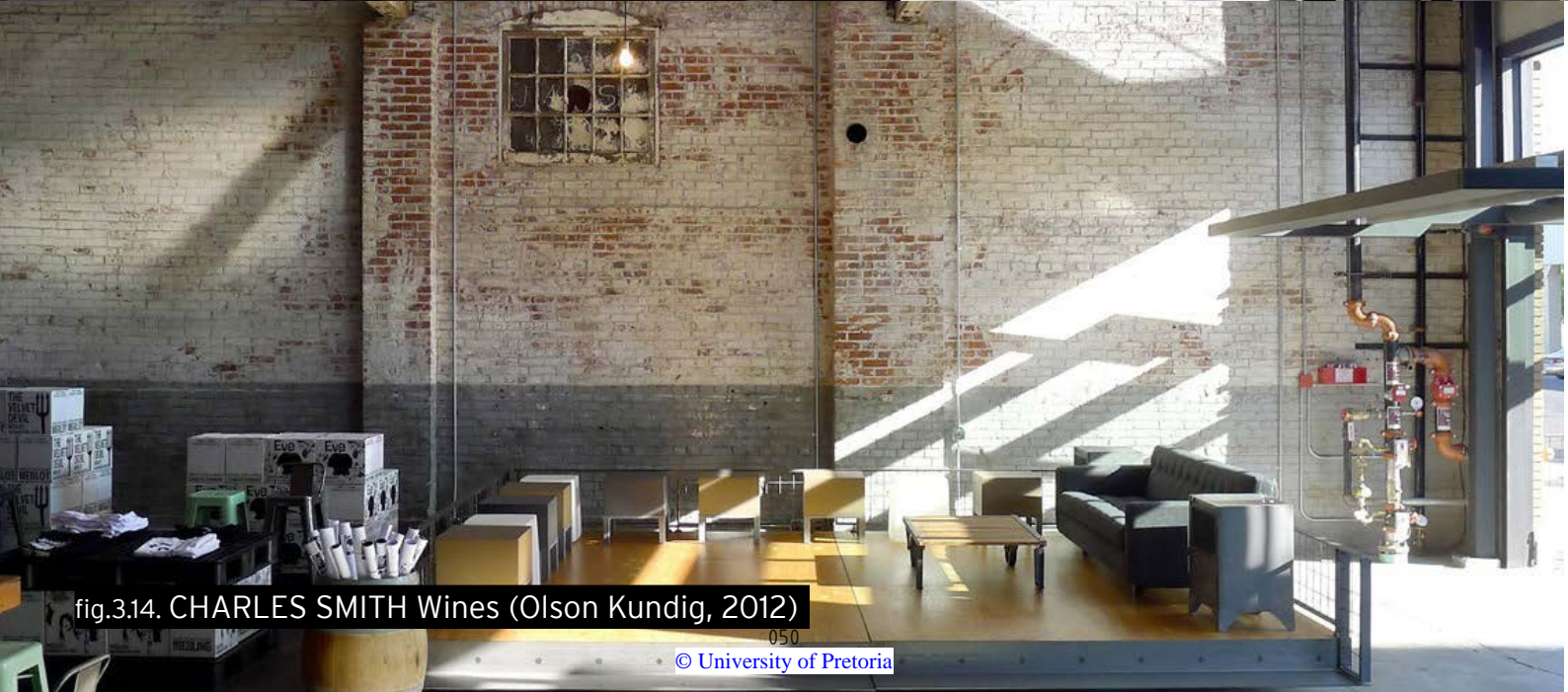


fig.3.14. CHARLES SMITH Wines (Olson Kundig, 2012)

CHARLES SMITH WINES, WALLA WALLA, WASHINGTON.

by Olson Kundig, Tom Kundig.
2012.

Charles Smith Wines is located in downtown Walla Walla in the former Johnson Auto Electric building, constructed in 1917. Winemaker Charles Smith with his “rock ‘n’ roll” style, approached the Olson Kundig team and requested that they design an office space and tasting room. Inspired by his “in-your-face” attitude, the team had to design a raw space, keeping the original aesthetic of the building in mind, to create a flexible interior that can transform and be used as office space or a tasting room, as well as retail space and an entertainment venue.

The facade and the shell of the original building had undergone minor structural changes but was left raw to stay true to the original aesthetic of the building. Staying true to the automotive history of the building, the team replaced the doors with two custom, highly flexible doors which can be mechanically operated to open the interior space to the street’s outdoor seating and act as an awning when opened.

The interior and furniture was designed to be completely flexible and inserted into the space as movable objects. The furniture can be moved and adjusted to serve various functions, depending on the requirements of the events. The design of the space was informed by the drive-through concept to allow vehicles such as delivery vehicles and taco trucks to move through the space, as need be.

The success of this intervention is in the simple approach to the design process and the minimal changes that were done to the original building. Staying true to the history of the site and the building, the design was informed by the rich history and therefore suits the building in a sympathetic manner.

The simple mechanical operations of the interior and the doors eliminates the need for any energy inputs and requires the users to interact with the design elements to suit their requirements. The general aesthetic of the Olson Kundig firm is rather simple and has a great appeal due to the rustic and raw feel. The application of construction materials in a different way to the norm gives a great example for the future of tectonics in architecture.

POLE PASS RETREAT, SAN JUAN ISLANDS, WASHINGTON.

by Olson Kundig, Tom Kundig.
2015.

The site for this waterfront family retreat is a dense forest shoreline located in the San Juan archipelago which separates Washington State from Canada. The temperate Pacific northwest climate makes this house perfect for family gatherings in the summer. Nestled in the forest while framing views over the meadows and harbour that make up the surrounding area of the site.

The horizontal proportions of the building allows it to blend with the surroundings. The timber cladding is treated with a traditional Japanese method called 'shou-sugi-ban'. This treatment protects the timber and discourage insects from damaging the timber. The colour effect from this treatment gives the timber a dark, almost silver colour and changes over time.

The architects made the space as flexible as possible to allow various potential functions throughout the course of the year. The building's pavilion window walls are all openable to accommodate for the warmer summer months and allow large groups of people to "dissolve" (Olson Kundig, 2015) the threshold between the building interior and the site. These walls are opened using a 'walk-along-hand wheel' (Olson Kundig, 2015), a mechanical apparatus designed by the architects. This mechanical hand-cranked wheel allow the large glass facades to move effortlessly. The interior and exterior spaces become one- various components in the interior extends to the deck such as the kitchen counter.

The organization of the spaces were done in such a way that the bottom floor accommodates the public functions such as the kitchen and the deck, which has the same area as the building footprint. The top floor is for the private functions in the building, and houses all the bedrooms as well as the green roof which is seen as a small "meadow" (Olson Kundig, 2015), that serves a private escape in the building. The exterior envelope of steel and timber cladding is juxtaposed with a soft interior palette of pine with wood rafters exposed throughout the space.