

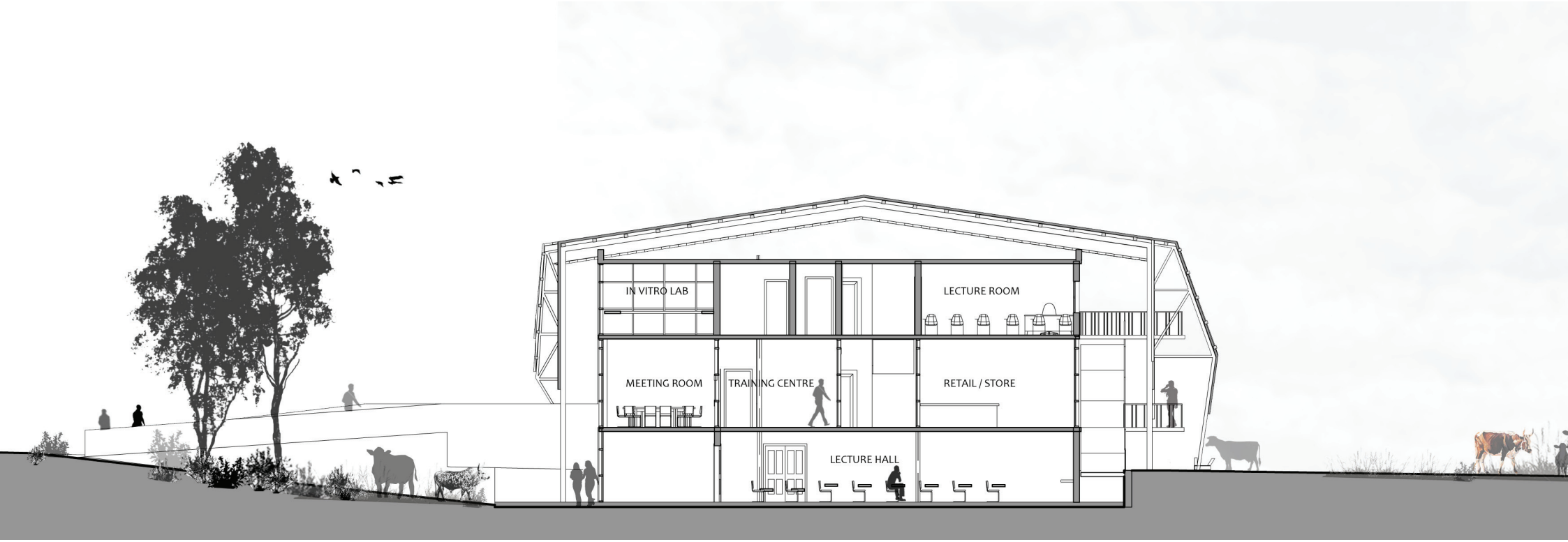
https://dspace.org/

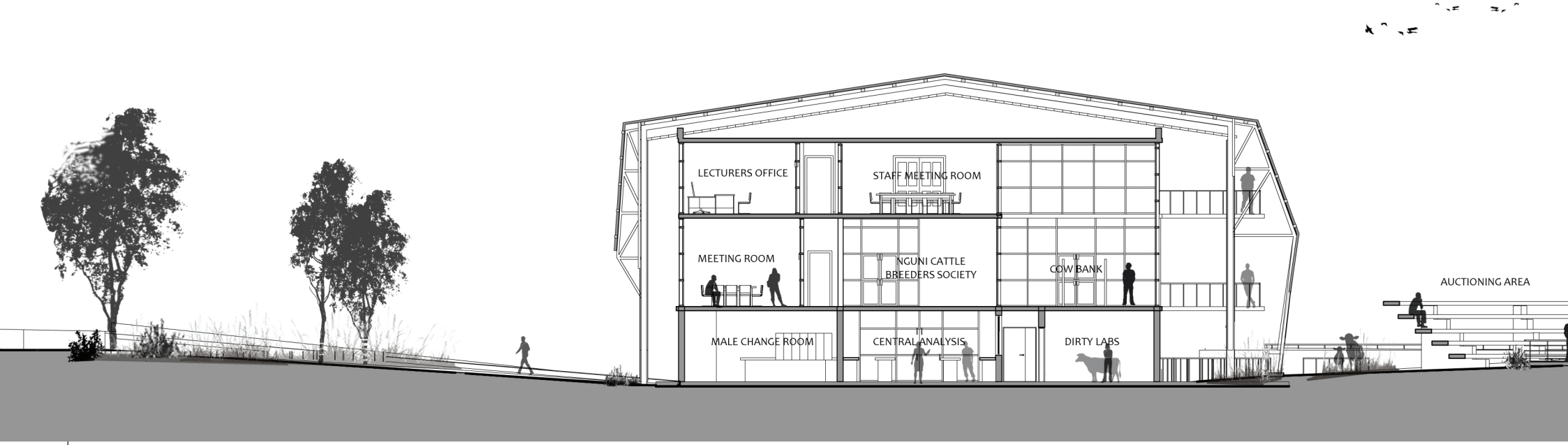
The Byre: Nguni Cattle Research and Training Institute

Serrao, Toni

2013-08-02
http://hdl.handle.net/10539/12977

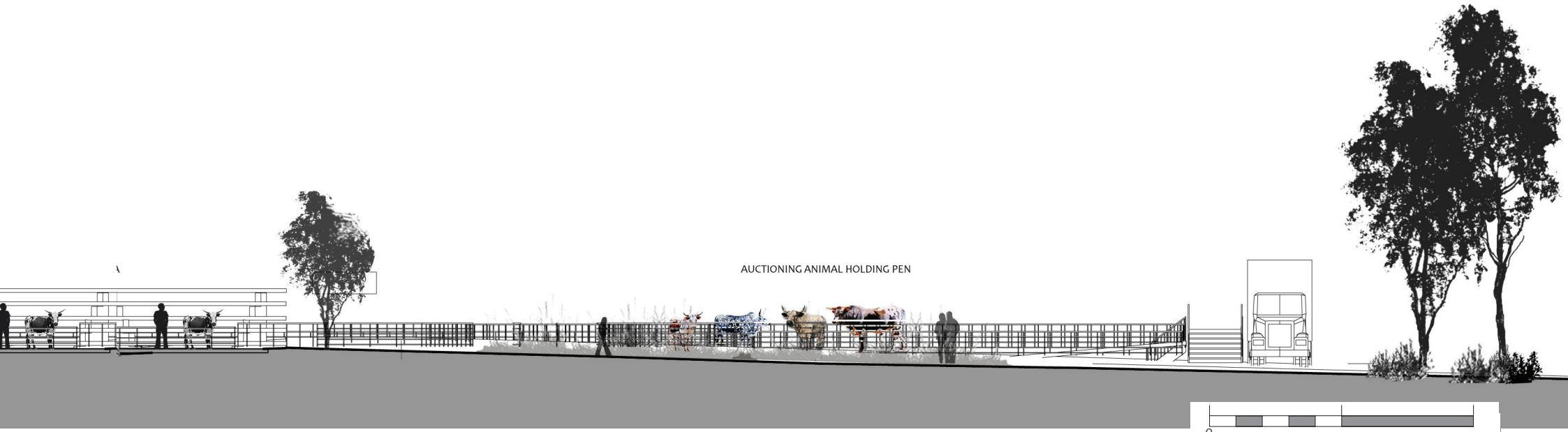
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IN VITRO LAB
LECTURE ROOM
MEETING ROOM
TRAINING CENTRE
RETAIL / STORE
LECTURE HALL

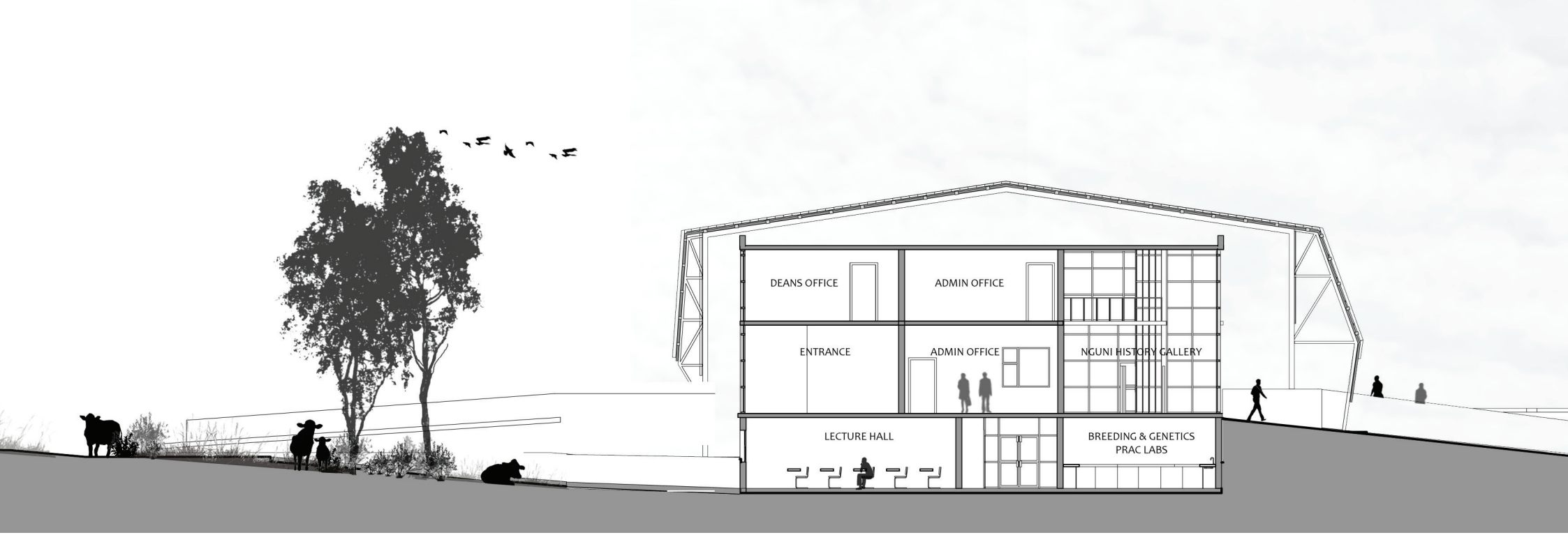

LECTURERS OFFICE
STAFF MEETING ROOM
MEETING ROOM
NGUNI CATTLE
BREEDERS SOCIETY
COW BANK
AUCTIONING AREA
MALE CHANGE ROOM
CENTRAL ANALYSIS
DIRTY LABS

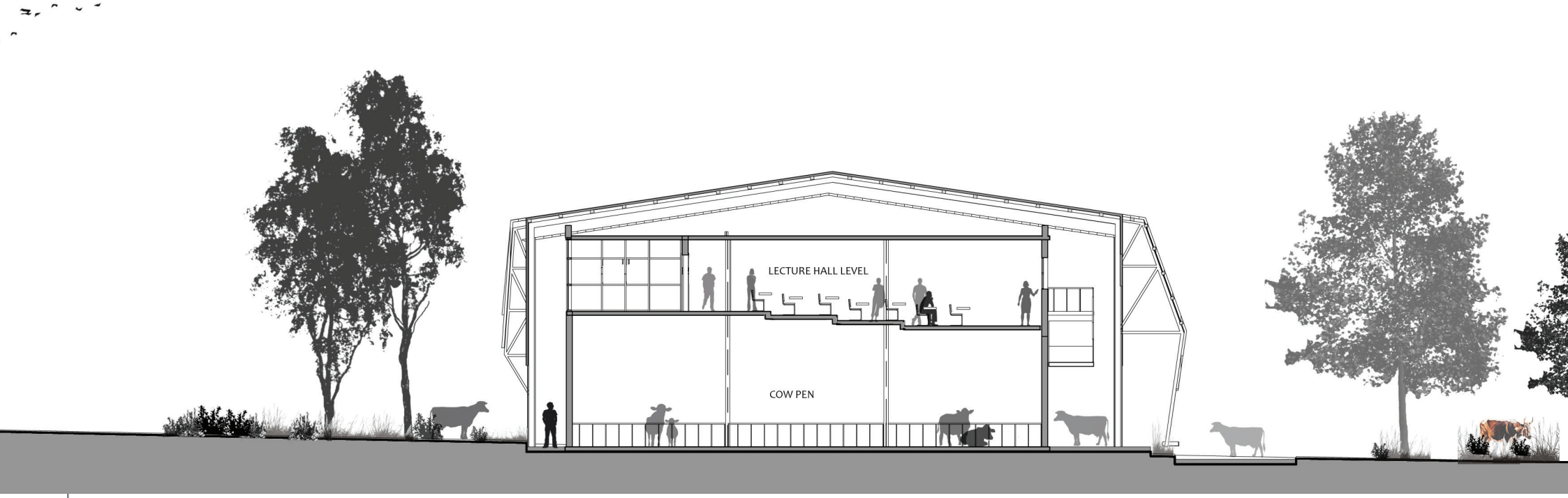
Section





0 5 m 10 m
Scale 1 :200

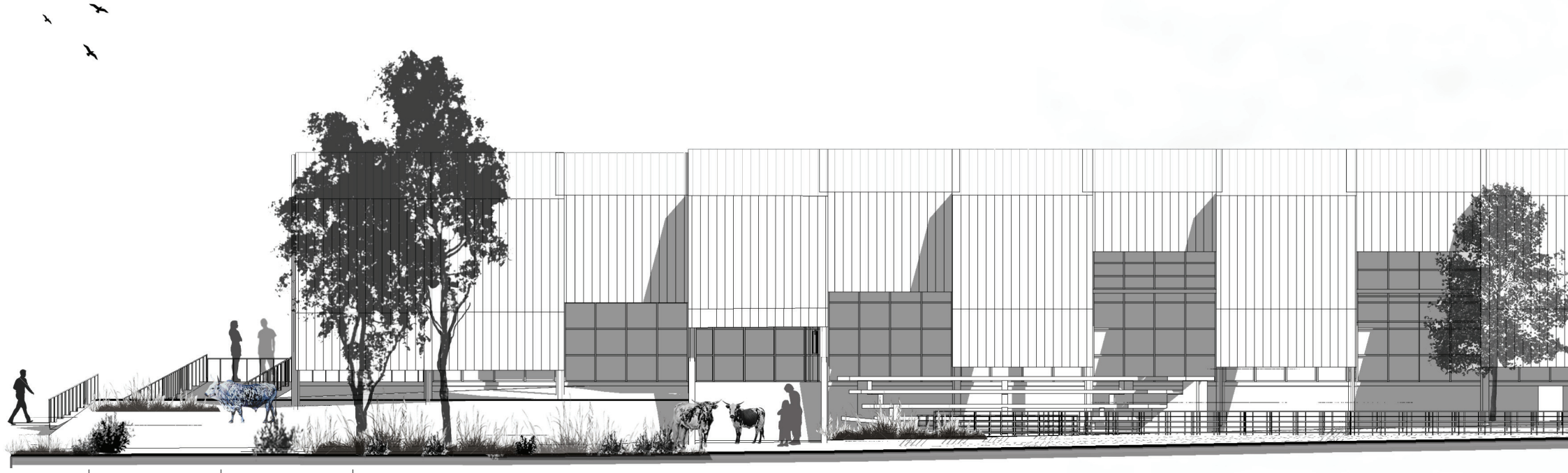

DEANS OFFICE
ADMIN OFFICE
ENTRANCE
ADMIN OFFICE
NGUNI HISTORY GALLERY
LECTURE HALL
BREEDING & GENETICS
PRAC LABS


LECTURE HALL LEVEL
COW PEN

Section



0 5 m 10 m
Scale 1 :200

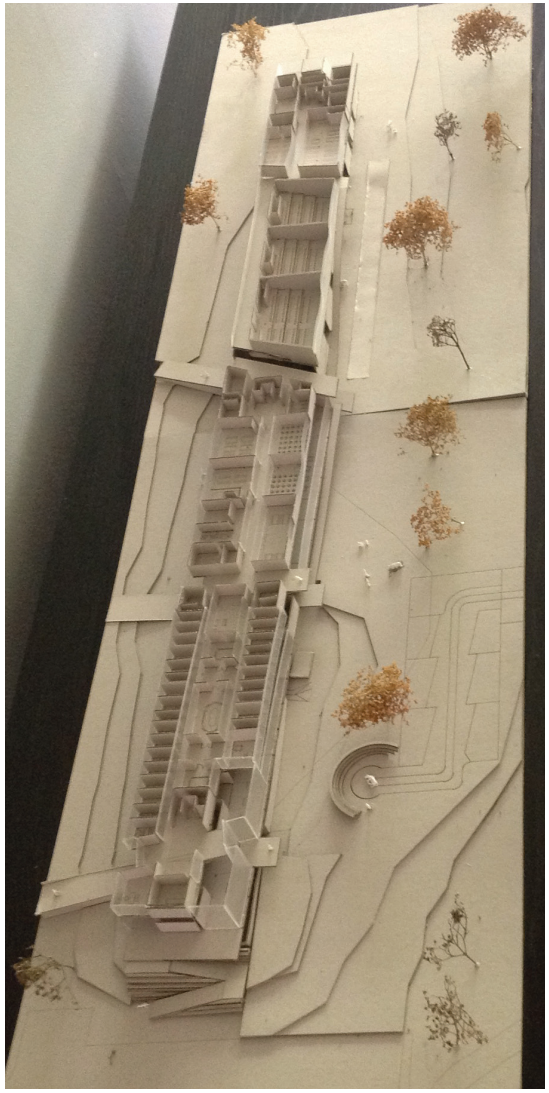


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4.0
Addendum

Technical aspects

An Abattoir is a place not regularly, if ever, visited by the general public. It is a space unknown to many other then the employers of the abattoir. It is a place separated, set aside and not understood or explored.

This analysis is an attempt to understand the process, the architectural spaces and associated requirements of the abattoir in order to find architectural clues and guidelines for design.

Abattoir regulations:
According to the Meat Safety Act of South Africa, 2000 (Act No. 40 of 2000), there are three types of abattoirs:

1. Rural red meat abattoirs:
The throughput (animals slaughtered) may not exceed two units per day.

2. Low throughput red meat abattoir:
A maximum throughput of 20 units per day, if only one species is slaughtered per day, the maximum throughput is:

i) cattle, horses or sausage pigs larger than 90kg - 20 units
ii) sheep or goats - 40 units
iii) pigs - 30 units

3. High throughput red meat abattoir:
The maximum throughput is determined by the provincial executive officer, either on the grounds of the capacity of lairages, hourly throughput potential relative to available equipment and facilities including hanging space, chiller capacity as well as rough offal handling and chilling capacity.

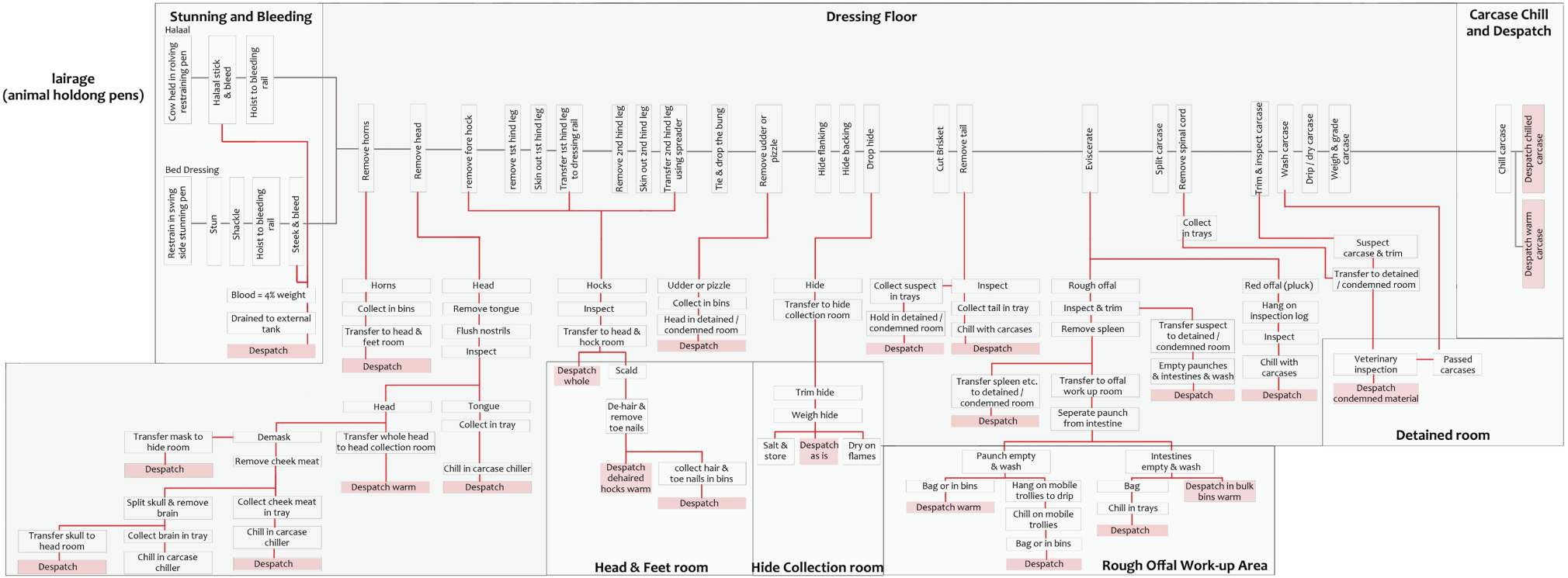
There are 285 red meat abattoirs in South Africa which slaughter about 12 million animals and use 5.8 million m^3 of water annually.

"unit" is a quantity standard used for determining throughput for red meat. A unit equates to:

- one cow, ox or bull, or two calves;
- one horse;
- six sheep or goats;
- four small pigs (porkers) or two bacon pigs or one sausage pig.

Below: A flow diagram of the abattoir process. Data source by Divac cc.

Cattle Slaughtering: Flow diagram of abattoir process



5.0
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Figure 67: [The cow and Bull, Plate 3 anatomy sketch] 1950. [drawing] Available at: http://www.hubzi.com/Request/PalDetails/arts-crafts/vintage-cow-and-bull-side-skeletal-view-illustration-book-page?lid=68473345&pid=5&sid=30&cid=2002 [Accessed 29 April 2012].

Figure 68: [The cow and Bull, Plate 4 anatomy sketch] 1950. [drawing] Available at: http://www.hubzi.com/Request/PalDetails/arts-crafts/vintage-cow-and-bull-side-skeletal-view-illustration-book-page?lid=68473345&pid=5&sid=30&cid=2002 [Accessed 29 April 2012].

Figure 69: [Portrait of Herd] n.d. [image online] Available at: http://www.africanhidesandleather.com/web/index.php?page=shop.browse&category_id=36&option=com_virtuemart&Itemid=1 [Accessed 12 May 2012].

Figure 70: [Image of herd with one cow's head facing viewer] n.d. [image online] Available at: http://www.ehow.com/how_8461441_create-cattle-brands.html [Accessed 6 September 2012].

Figure 71: Ellmist. 2002. Cattle Herd. [photograph] Available at: http://en.wikipedia.org/wiki/File:Cattle_herd.jpg [Accessed 6 September 2012].

Figure 72: GHG, n.d. The Carrbon Footprint of Food. [Graphic] Available at www.thedailygreen.com/weird-weather/weather-categories/global-warming-pictures/carbon-footprint-of-food-0717 [Accessed 14 May 201]

Figure 73: Thomond, C. 2010. Cattle awaiting slaughter at Penny and Sons in Leeds. [photograph] Available at: http://www.guardian.co.uk/lifeandstyle/gallery/2010/jul/08/slaughter [Accessed 13 September 2012].

Figure 74: Amber Sky Creations. 2011. Botswana: image 1. [photograph] Available at: http://www.amberskycreations.co.za/wordpress/ [Accessed 17 August 2012].

It was a stifling hot day as I stopped next to the road in rural KwaZulu-Natal to admire some Nguni cattle grazing next to the road. As my eyes feasted on the beautiful shapes and colours, I noticed a wizened old man leaning on a stick, also gazing at the cattle. It was a timeless moment when I asked him where these cattle come from. With a far-off look in his eyes he nodded and slowly said: "These cattle have always been here."

Chris Van Der Merwe

Figure 74: Photograph (Amber Sky Creations). 2011)

