

REPORT ON EXCAVATION TRAINING AT THE LANGEBAAN FOSSIL PARK, 12.04.1999 – 16.04.1999

Prepared for

**Earth Sciences Division
South African Museum**

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Prepared by

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1. INTRODUCTION

The Archaeology Contracts Office was requested to provide a period of training to museum staff to enable them to continue excavations on the remaining portion of “lag” deposit in the E Quarry at Langebaanweg. Five days were set aside for this and training was provided to Dr. Roger Smith and Ms. Pippa Haarhoff. The training was also attended by three Zoology honours students from UCT as part of their course.

Training covered the following:

- establishing a grid (using fixed points established during the 1998 excavations)
- basic excavation techniques (incl. use of vacuum cleaner)
- stratigraphy
- maintaining spatial and stratigraphic control over excavated material
- sieving (dry and water)
- drying water sieved material

2. METHOD

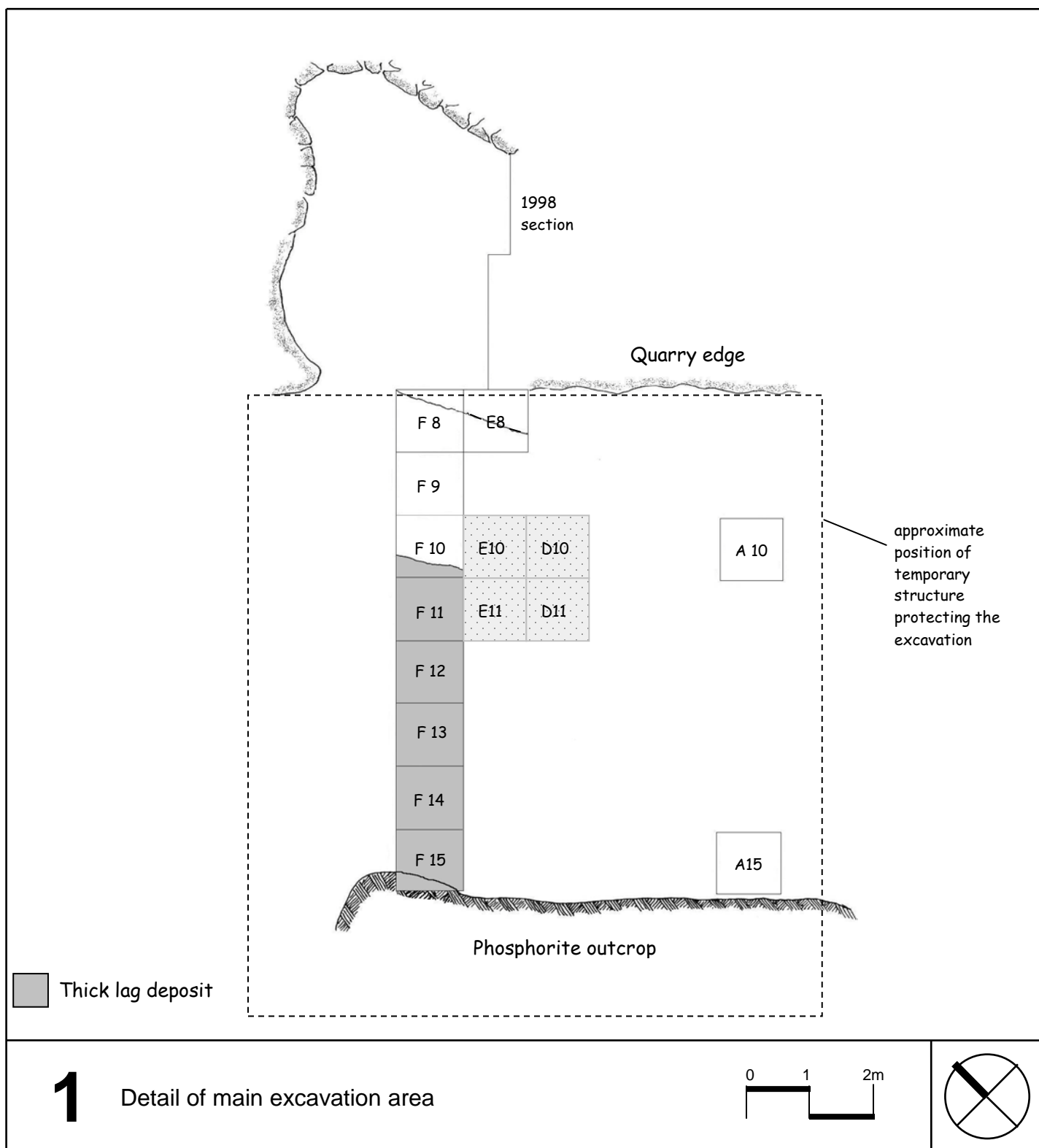
Four new squares were excavated during the training period. These are shown in Figure 1. Initially it was only intended to open two squares, but a section collapse along the old trench adjacent to the *in situ* Sivathere mandible in F10, had to be made good necessitating the excavation of E10. An additional square was opened to give an area of excavation of 4m². The deposit was excavated according to visible stratigraphy. As before the technique of wetting the cemented deposit with water prior to excavation was employed. Wet deposit was placed in large plastic bags and moved at the end of each day to the laboratory for wet sieving and drying.

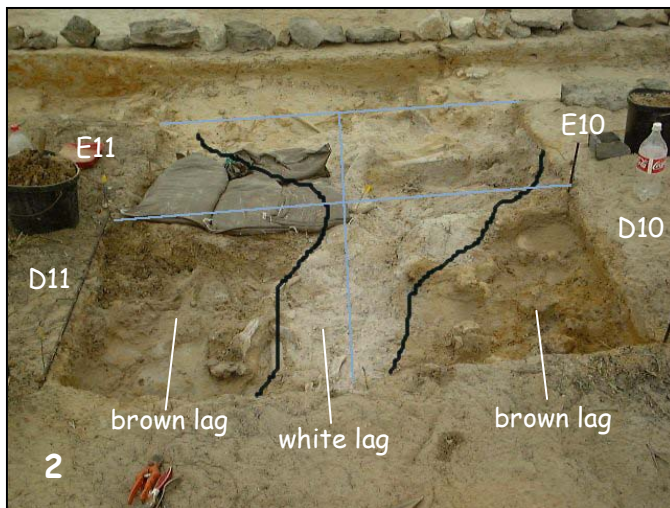
3. DISCUSSION

Before commencing the excavation the section of the old trench was examined and it was determined that the area with the least overburden and maximum likelihood of producing bone in the short time available would be the squares F11 and E11. As explained above the area was soon increased. A thin layer of loose surface material was removed first. This includes many small bone fragments and occasional larger pieces. Stratigraphic excavation commenced when compacted *in situ*



deposit was encountered. It immediately became clear that two types of deposit could be discerned across the opened squares suggesting that some sort of feature was present. The deposit consisted of brown cemented “lag” deposit, and a less cemented white soil, most likely deriving from the underlying QSM (Quartzose Sand Member).





Continued excavation indicated that the white QSM material was mostly confined to E10 with smaller amounts being present in D10, D11 and E11. There appeared to be little difference in the content of the white lag compared to the brown. Although the white material showed no overt signs of having been deposited by water, this seems to be the most likely scenario for its deposition and would account for the similarity between the brown and white lags in terms of the quantities of comminuted bone, and the fact that the white material surrounds the upper

surfaces of some bones which have bases firmly cemented into the brown lag. It would be difficult to believe that this could be a burrow that has been filled. As squares E10 and E11 were still being excavated at the end of the time allocated for the training, it must still be seen how this will look when complete.

It became clear during the excavation of these 4 squares, that a system would have to be put in place to allow excavation to be continued without damaging or displacing bones left in place for display purposes. This problem will become worse as more squares are opened, and with the need for ongoing cleaning, bone will inevitably be damaged.

4. RECOMMENDATIONS

The potential for damage to sections and the exposed bones is increasing as more area is opened. Furthermore, the erection of a temporary structure over the excavation has narrowed the access point and the walk space around the edge of the excavation area.

As tours to view the bones are ongoing, risk to the bone from unwitting visitors is also possible. It has been suggested that a system of scaffold be erected to form an elevated walkway around the edge of the excavation. In addition to removing a lot of potentially damaging pedestrian traffic from the surface of the excavation area, it will allow a system of platforms to be installed over the excavation from which excavations can be conducted.

Care should be exercised during erection of the scaffolding to ensure that the supports are placed away from section edges. In addition supports should be placed on wooden planks to prevent them sinking into the deposit.

APPENDIX 1

INVENTORY OF MATERIAL EXCAVATED

1. Dry sieved (1.5mm mesh)

Date	Square	Layer	Bags (small)
12.04. 99	D11	surface	1
12.04. 99	E11	surface	1
12.04. 99	E10	surface	1
13.04. 99	E10	white lag	4
13.04. 99	D11	mixed lag	2
13.04. 99	E11	white lag	4
13.04. 99	E11	mixed lag	2
13.04. 99	D10	surface	1
14.04. 99	D10	white lag	1
14.04. 99	E11	white lag	1
14.04. 99	D10	brown lag	3
14.04. 99	D11	white lag	2

2. Unsieved (bulk material for wet sieving)

Date	Square	Layer	Bags (bulk)
13.04.99	E10	brown lag	1
14.04.99	D11	brown lag	1
15.04.99	D11	white lag	1
15.04.99	E11	brown lag	1
15.04.99	D10	brown lag	1
15.04.99	D10	brown lag	1

additional bags from the 16.04.99 must be added to this list.