

## RESEARCH NOTES

**New evidence for the origin of the Zerrissene Mountain  
(Namibia) excavations and diggings.**

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In 1978, the Carrs and I published a report on the archaeology of the Zerrissene Mountain area. This consisted mainly of hut remains and other types of stone structures but also included a limited range of material objects and fauna, a painted shelter, a dog burial and a number of puzzling pits which we referred to as excavations and diggings (Carr *et al.* 1978).

These so-called excavations and diggings had an apparent spatial association with the settlements and occurred on low ridges and on the slopes of low hills. In general, they were approximately 1-2 m across and 0.5 m deep although they ranged in size considerably. Hence our reference to diggings which were defined as minor surface disturbances and excavations which were major features from which several tons of rock had been removed. The largest pit had some 3-4 m<sup>3</sup> of rock excavated which in terms of weight means that nearly 10 tons of stone was removed.

In our original report, we were quite baffled by these pits and although we had suggested that they might have been old prospecting pits we discounted this based on geochemical assays for copper and gold which produced very low values.

Kinahan (1991) subsequently interpreted these pits as sites where harvester ant seed caches had been dug up. The robbing of harvester ant nests for their seed had been well documented for this area (Du Pisani 1978; Jacobson 1981a, 1984; Steyn & Du Pisani 1985) but although not referenced by Kinahan this explanation for the origin of the pits is unrealistic. Harvester ants nest in sandier substrates than found on rocky ridges or slopes. It is fanciful to believe that 10 tons of rock were removed for perhaps a kilogram or two of seed; the labour needed would surely make it uneconomical. These settlements were in the area not because

seed caches were available but because there was water and grazing available for small flocks of sheep or goats.

Pastures in this arid environment are most definitely not annual but highly dependent on patchy rainfall (Sharon 1972, 1981; Lancaster *et al.* 1984) which might only occur once or twice over a decade with the necessary minimum precipitation, 21 mm, to ensure that a standing crop is produced (Seely 1978a, & b). This patchiness also makes it difficult to predict whether it will rain and where it will rain (Gamble 1980; Jacobson 1981b). However, as it can take anything from two weeks or more for growth and seed to set, depending upon the grass species and the amount of rain, it does provide time for suitable grazing areas to be located. Occasionally, very heavy downpours occur resulting in exceptional grazing and water sources which can last months hence the isolated areas of dense settlement such as the Zerrissene. For example, Gobabeb which has an average of 27.2 mm annual precipitation (Lancaster *et al.* 1984), received 98 mm between January and March of 1978 alone (Seely 1978a).

In the mid 1980's, during a visit to the area, several nests were found including a large one near a spring (Fig. 1) but none on the ridges or hill slopes. These observations also contradict Kinahan's assertion that there are no longer any ant nests or seed caches in the area.

Recently, however, I came across a quote referenced to an unpublished report by the Solar Development Company which had carried out geological prospecting for minerals in approximately 1930-32 (Schroder 1932) or even earlier: "Gold is associated with pyrite and galena in small quartz lenses on the south-eastern side of the isolated mountain south of Brakputz on the Ugab River. This is the unnamed mountain 20 miles west of the Brandberg and five miles south of the Ugab." (Willems *et al.* 1944:165). This is



Fig. Collecting grass seeds from a cache in the Zerrissene Mountains, winter 1985.

clearly and without any doubt the Zerrissene Mountain, a fact corroborated by Swart (1992) who investigated the geology of the area and who mentions the same quote.

It is therefore more likely that the pitting relates to this period and was part of the company's sampling program. The later trench documented by us cutting across an older pit therefore dates to the later prospecting program carried out by the Brandberg West Tin Mine. The apparent association of the pits with the settlements could either be fortuitous or, more likely, that the prospectors associated the stone remains with precolonial indigenous mining.

Many of southern Africa's first colonial mining ventures were founded on the sites of indigenous mine workings (eg, Summers 1969) and up until the 1930's memories of this would have been still fresh amongst the older generation of miners and prospectors. This is particularly so for gold mines and Solar was looking for gold amongst other minerals. Optimistic reports that gold was present, although in this case our geochemical results showed it to be negligible, were often made as reefs had value not just for any actual gold they might contain but as "baits for investment capital" (Summers 1969:5), in other words, as an enticement to raise money for further exploration work. The presence of substantial numbers of hut remains in an otherwise remote and apparently inhospitable area could

have suggested to the Solar geologists that there was potential in the area hence the exploratory pitting.

There are numerous other highly localised similar sites both in the vicinity of the Ugab River/Zerrissene area and in the more westerly areas of Damaraland as a whole (Jacobson 1979, 1997; Speich 1999, 2002, 2005) in very similar environments none of which have the same pitting although harvester ant nests must have occurred in the past as grass seeds are still collected today (Sullivan 2005). The pits found in the Zerrissene Mountains do not therefore relate to the original settlement of the area but subsequent prospecting activities. Settlement in an arid area was not related to the presence of grass seed caches, although these would have been utilised as any other subsistence resource, but was dependent upon rainfall providing water and pasture for either game or domestic stock whilst the intensity and duration of the precipitation determined the duration and demographic intensity of the settlement.

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