

## Game Traps : Their Importance in Southern Africa

by N. Walker\*

### Introduction

Nineteenth-century travellers in the interior of southern Africa frequently came across pitfalls or game traps, yet remarkably few have survived, and little archaeology has been done on them. Recently a new type of game trap was discovered at Tshwane in east central Botswana, and this paper describes the site and assesses the significance of these labour-intensive traps.

### The Setting

Tshwane is the local name given to the Mosetse river where it flows into Sowa Pan just south of Sowa Spit. The country around here is very flat. On several occasions in the past this terrain would have been under water when the Makgadikgadi palaeo-lake received much higher inflows of water than today (Grey & Cooke 1977). Annual rainfall is less than 500 mm on average and sporadic, and rivers such as Mosetse which rises some 75 km to the east do not flow every year, but if they do, this is usually in late summer.

The land surface here is primarily aeolian or lacustrine sand, and calcrete is invariably just below the surface, itself covered by a fine grey dust derived from the pan and black cotton soil further inland. The water table is within two metres of the surface, and once one has broken through the hard calcrete cap it is often very easy to dig through the soft sand. It takes less than a day for a team of five men to dig a 2,5 metre well with picks and shovels (*Dzu pers comm.*).

Vegetation is monotonously mopane woodland with little grass, albeit palatable, but near the pan shores there are often extensive areas of grassland, which offer good grazing (*Nyamatshoko pers. comm.*). Until recently, the region was extremely rich in large game (Chapman 1863, Shultz & Hammar 1897, *Campbell pers. comm.*), but drought and hunting have drastically reduced herd sizes and species diversity. Veterinary fences have also disrupted game movements. More recently several cattle posts have been established here, and goat populations are on the increase, and so further declines in game numbers can be expected.

The indigenous people are Basarwa (San), and call themselves Baaishwe. They spread from Gweta to Nata in the north down to the southern edge of Sowa Pan. Following the demise of big game, many now act as servants to the new cattle men, and

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some continue to trade salt, palm leaves (Hitchcock 1982) and pigment (*Bathu pers. comm.*) with more distant populations.

The site was discovered during an archaeological impact assessment carried out as part of the environmental impact study for the Sowa soda ash mining project (Denbow 1985). It lies a few kilometres from the pan edge and about one kilometre north of the Moseitse river. Two other sites were discovered nearby, including a Zimbabwe-type ruin which may have controlled the mid second millenium AD trade in salt (*Denbow pers. comm.*), and even wild animal products such as skins, perhaps collected in traps such as this one. On the basis of the distribution of sites discovered in the general area, Denbow concluded that people avoided the pan edge probably because of the exposure to frequent dust storms, generally settling near rivers which had fresh water.

### **The Game Trap**

The site is a prehistoric trench, and is essentially U-shaped, about 60 m in extended length (fig 1), with the opening on the southern side, nearest the Moseitse river. The soil was heaped to the outside, forming a rampart, although much of this has spread outwards or washed back into the ditch with part of the collapsed inner edges. An interesting feature is the curve to the west at both extremities of the southern ends. A kink in the western arm may not be significant. Prevailing winds are from the east.

### **The Excavation**

A metre wide trench was excavated across the east arm and opened up for five metres, enough to discover the edges of the pit. Excavation was down to and through the base of the original trench. Stratigraphy is as follows (fig 2):-

- Unit 1 A dark grey humic soil with lots of grass rootlets;
- Unit 2 A hard compacted grey soil, derived from wind blown dust and soil washed back into the ditch from the rampart:
- Unit 3 A pale grey soil:
- Unit 4 Lenses of greenish loam of lacustrine origin:
- Unit 5 Large sections of white silcrete:
- Unit 6 White sand, rather coarse in texture.

Units 1 to 2 are the infill in the prehistoric trench, 3 is probably the original pit floor while units 4 to 6 are *in situ*. The green layers are typical of what can be found on Sowa Pan just below the surface. These lenses did not continue across the excavation, being truncated in places by hard siliceous rock or replaced by the white sandy unit 6. Nodules of calcrete and silcrete were found throughout units 1 to 3, but smaller pieces were more common towards the sides. These had rolled back into the hole from the rampart and pit sides. On the inside edge some calcrete was still in position, but some had collapsed and chunks were sloping down into the pit. The pit edges could be recognised by a thick layer of calcrete above a hard soil containing nodules of calcrete and silcrete above units 4 to 6.

No cultural material or artificial features were noted at the base of the pit (unit 3). A few Later Stone Age (LSA) stone artifacts (15 chips, 26 chunks, 2 cores, 17 flakes, 4 small rough scrapers and 7 utilised flakes - with adze, scraper or knife damage) came out of units 1 and 2. It is not possible to give a more precise age because of the specialised and nondescript nature of the assemblage. Some of the material may have been naturally damaged. The material is mainly of locally available silcrete, but the quartz, originally derived from Basement rocks to the east, could have been collected in the Mosetse river (*Cooke pers. comm.*). This cultural material thus accumulated after the ditch had been abandoned and was silting up. As such it had been left either by people using the banks during the life of the pit, using the pit or the banks after its abandonment, or less likely simply be material from an earlier occupation predating the trench, and thus washed back in from the spoil heap. This association suggests a LSA age for the ditch, but this might still be very recent. Judging by the profile of the trench and infill, it can be seen that the trench was originally 1,4 metres deep, and the rampart probably reached about 1,6 metres higher than the ground level (fig 3). The pit was about 4,8 metres wide here.

### Ethnographic Interpretation

Two informants from the nearby Baaishwe community offered differing explanations as to how the trap (*xerodam*) was used, information handed down from older generations, as neither had seen the pit in operation. They call the site *Xaishokoro*, the old place. On the basis of their information, it was probably last used about the turn of the century.

**Dzu.** A young man in his twenties, cautious in his interpretation, stressed that it was hearsay.

According to him the site had been dug out to serve as a waterhole-trap, catching rain in the wet season or filling from seepage from the high water table, with a single narrow southern entrance through which thirsty animals could enter. The inside of the trench was sheer-faced, making it difficult for the animals to reach the water, and thus when attacked they would panic and jump into the water where they would be easily dispatched. The outer rampart was originally much higher and covered with a fence of branches, offering no escape. Killed animals would then have been carried some distance before being butchered, so that little blood would remain to frighten off other game. This trap was only used in the dry season as otherwise there would have been water in the river. Only water-dependent animals were captured.

**Bathu.** An elderly man, perhaps in his early 60s, leading shaman, diviner, herbalist and the most important member of the community.

His version is that animals were chased from the Mosetse river by shouting game-drivers, and then funnelled by people or vegetation fences into the trap, where they fell onto poisoned stakes (he did not know the type of poison). Butchering was done *in situ*. Again the outer rampart was higher and with a fence of branches on top. The pit was not covered over with grass and branches. The trap could be used at all times of the

year.

### Discussion

Game pits or pitfalls have been described in many parts of the southern Africa interior by 19th-century travellers (eg Anderson 1888, Andersson 1856, Arbousset & Daumas 1846, Arkwright 1846, Baldwin 1863, Bryden 1893, Burchell 1824, Chapman 1863, Cumming 1850, Galton 1889, Harris 1852, Hodson 1912, Kolb 1719, Leask 1870, Leyland 1866, Livingstone 1857, Mohr 1876, Oates 1881, Schulz & Hammar 1897, Smith 1834, Stow 1905), and generally follow Bathu's description. There are some variations, but typically pits tended to be near rivers and waterholes or along game paths. Some straddled valley passes. They were often constructed in sets, sometimes up to 150 or more in lines or arcs over several kilometres, each separated by hedges or fences of wood or stone, or in check formations. Most were more or less rectangular being about a metre wide and three metres long, and some three or even four metres deep. Some of these were staked, often with poison, and some had an inner wall on which the trapped animal's belly rested, thereby disabling it from springing away, and indeed making it difficult to breath or for the blood to circulate. Others were narrow, in which animals became firmly wedged. Invariably they were disguised and covered with branches. When skins were desired intact, the animal was asphyxiated with smoke (Schulz & Hammar 1897), otherwise it was dispatched with spears.

Descriptions tend to be brief, but variations seem to relate largely to the animals expected to be caught or whether they were to be driven or not, rather than ethnic groupings. Many were attributed to San hunters, but those in which large numbers of game were driven, were probably organised by larger more structured societies, and certainly all groups in the southern Africa interior were familiar with this form of hunting.

The game trap described here seems to meet with few of the above pitfall characteristics. Certainly the narrow entrance would have made it difficult to drive large numbers of game through, and one might have expected evidence for a v-shaped fence or wall to channel game to the pit. Again the closing off of part of the entrance does not make much sense, unless it was a low mound over which the unsuspecting animal would leap and thereby be impaled on the hidden spikes. But why not then continue it and the ditch behind it right across?

Another weakness is the shallowness of the pit.\* Finally the lack of any evidence of stakes or of butchering on site would support the idea that this was a bait trap as described by Dzu (fig 3). This is the first record of such a trap.

Brooks (1984) found large bone and skull parts in the only excavated pitfall trap, and their absence from Tshwane would be in agreement with the suggestion that they

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\* although the design could relate to difficulties of excavating through the silcrete.

were butchered elsewhere. Formal weapons were also recovered by Brooks, but it is not certain why they should be absent from the bait trap, unless the water was poisoned, and again why the artefacts derived from the pit sides (admittedly perhaps after the pit was abandoned as a trap) should be so expedient (ie quickly made for immediate use). In a sense, expedient tools might be expected for maintaining wooden artifacts such as spears and digging sticks, and for butchering carcasses into large joints to be cut up elsewhere.

A feature of the 19th-century game pits is the huge numbers of animals that were slaughtered in them. Even if one doubts the accuracy of Anderson's (1888) count of 1200 game killed at a time, the estimate of 50 by Chapman (1863) is still impressive. These were not always simply a means of capturing a few animals to feed small parties of hungry people. From being so ubiquitous and troublesome to mid-19th century explorers, the pits were hardly encountered after 1890 (fig 4). Early 20th-century travellers seldom mentioned them, and they are only memories today among elderly Kalahari hunters. In part the answer is that probably they had been too successful. Their impact on the fauna would have been such that big game numbers declined, making the traps less economical.

It is probable however that they had achieved their purpose. During the political upheavals of the 19th-century there was a considerable demand for firearms, and these were best obtained through trading animal products such as skins and ivory. Tribal regiments and subservient peoples were thus organised in hunting big game. As guns became more common, game pits declined in importance, considering the labour required to dig and maintain them and that it is usually more productive to go after wild animals than to wait for them.

Finally, by the end of the century large herds of cattle had been built up, and it is probable that many pitfalls were deliberately filled in to reduce stock loss, hence their scarcity today.

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## **Illustrations**

- Fig. 1 The Tshwane Game Trap.
- 2 Southern cross-section of excavated trench
  - 3 Profile of reconstructed original pit and rampart
  - 4 Histogram of reports of game traps per decade in sample of thirty-six 19th century travellers.

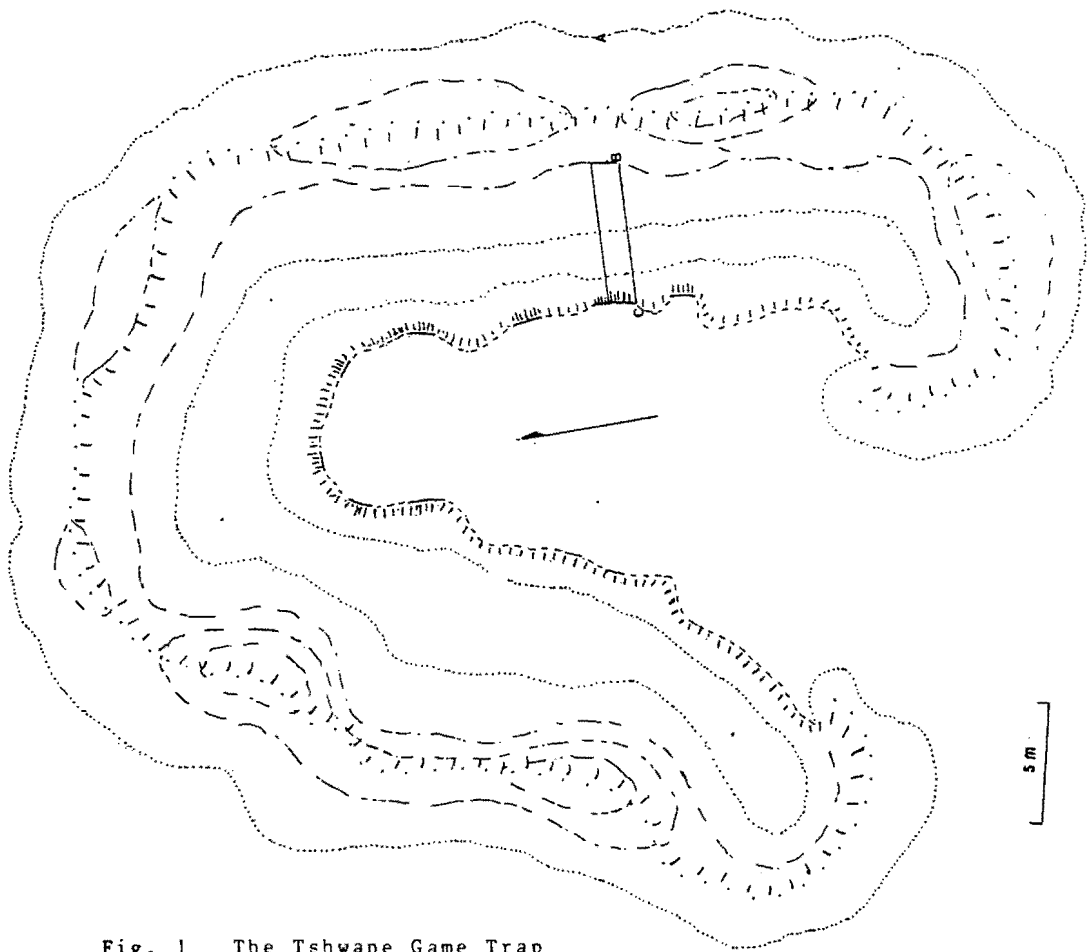


Fig. 1 The Tshwane Game Trap



Fig. 2 Southern cross-section of excavated trench

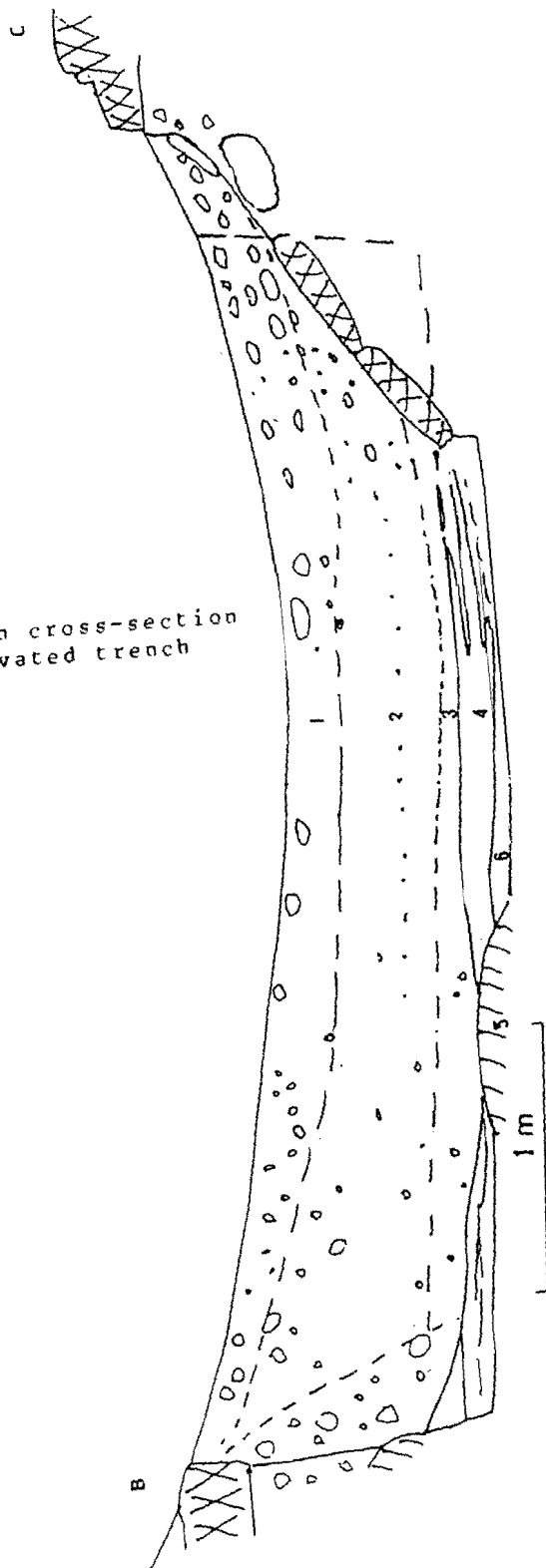


Fig. 3 Profile of reconstructed original pit and rampart

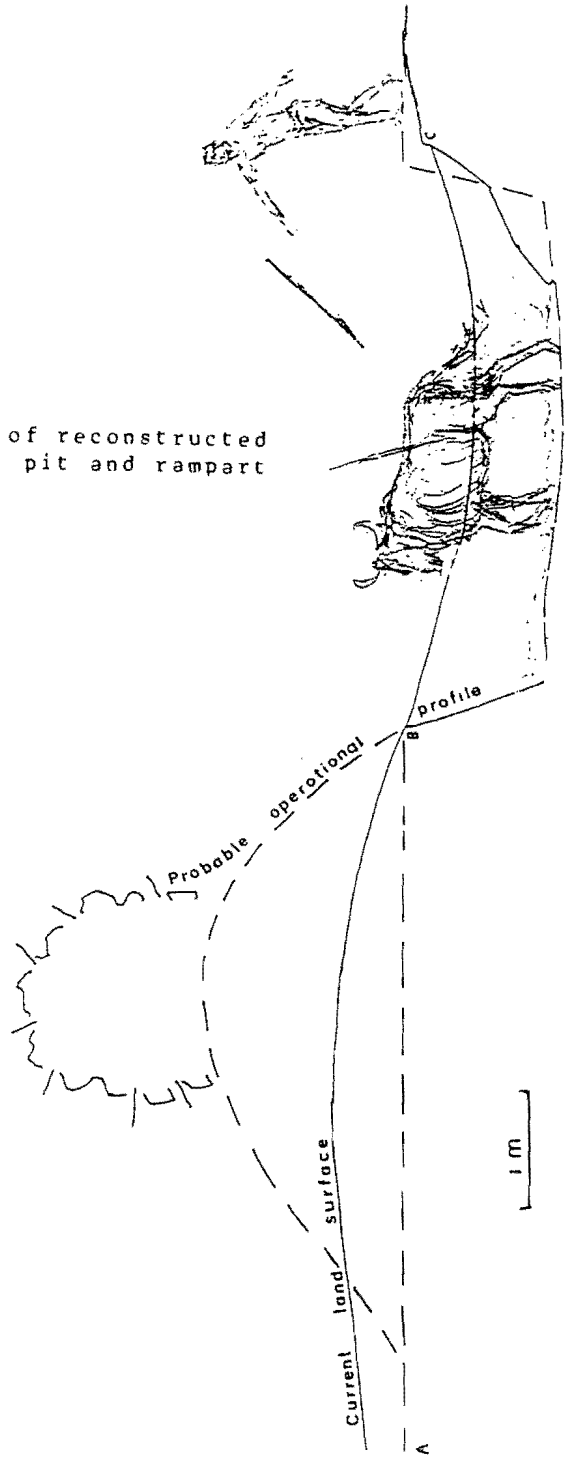
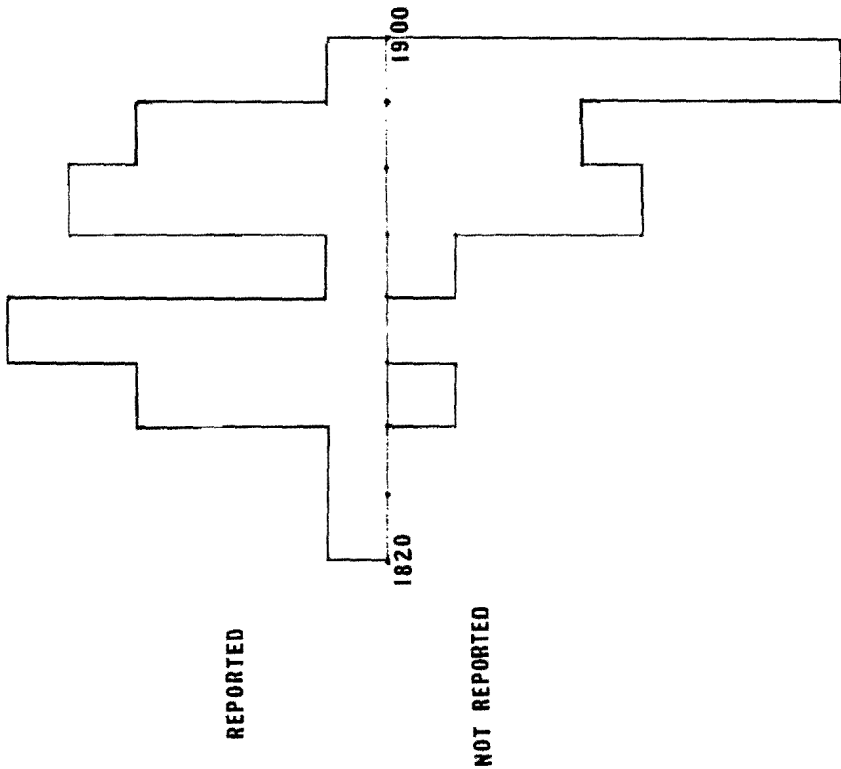


Fig. 4 Histogram of reports of game traps per decade in sample of thirty-six 19th century travellers



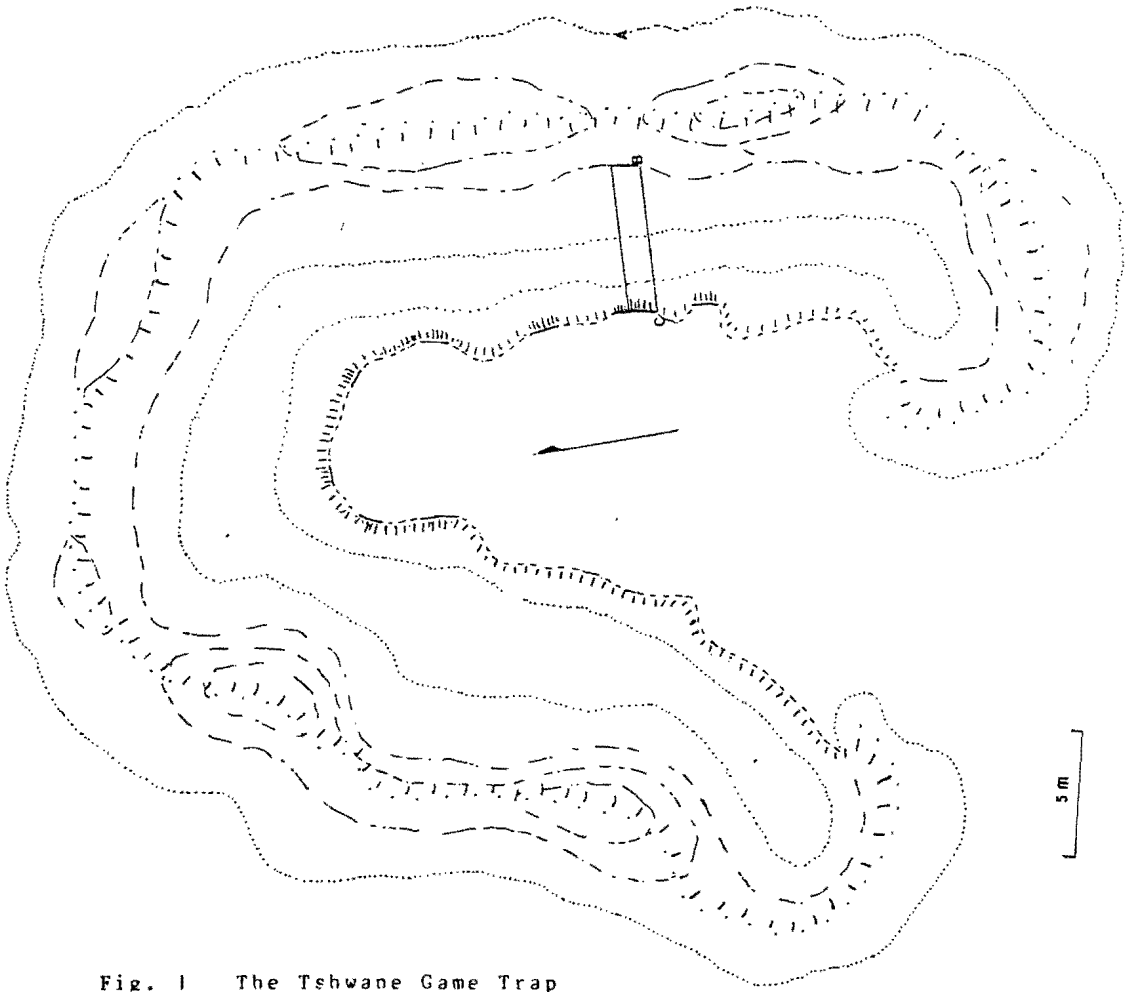


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