

## Pre-Colonial Fish Traps On the South Western Cape Coast, South Africa

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Stretching for more than 400km, from the Cape Peninsula in the west to beyond the harbour town of Mossel Bay in the east, the South Western Cape coast of South Africa is lined with stone fish traps. Built by the area's pre-colonial inhabitants, these traps are a special feature of this coast and have been reported along much of its length.

Although an important part of South Africa's maritime cultural heritage, the fish traps have a surprisingly low public and archaeological profile. Relatively few people know of their existence, and they have only been discussed in two archaeological papers, the first published in 1946 (Goodwin) and the other in 1975 (Avery). No other systematic work has been undertaken to survey and record these sites and their distribution, to establish their age, or to investigate their archaeological associations. In 2004, however, the National Survey of Underwater Heritage (NSUH) started systematically locating and recording the fish traps, in part as a response to the real and potential threats to these sites. This survey was a project of the South African Heritage Resources Agency (SAHRA) funded by a grant from the National Lotteries Distribution Trust Fund.

The heritage significance of these fish traps is clear, and was to some extent officially acknowledged with the declaration of one of the fish trap concentrations near Still Bay as a national monument in the 1980s. In general though, they remain little understood and, although protected by the National Heritage Resources Act (25 of 2000), are at risk of damage or even destruction.

### South Coast Fish Traps

It is clear from the archaeological remains – shell middens, deep stratified cave deposits, rock art and the fish traps – that marine resources have a long history of human exploitation along South Africa's coast. Shell middens are plentiful and in some instances date back more than 100,000 years, well into the Middle Stone Age.

Stone fish traps are found adjacent to many middens on the South Western Cape coast and John Goodwin, one of the fathers of South African archaeology, was the first to propose in 1946 that there was a relationship between some of the middens and the traps. He suggested that the sudden increase of fish remains in Later Stone Age levels at Oakhurst Shelter could point to the inception of the use of fish traps, although he was unable to fix a date for this event.

Sea level data generated since then suggests that the traps presently visible in the inter-tidal zone date to the last 2000

– 3000 years (Avery 1975). However, a means of dating the fish traps absolutely has yet to be found and thus the dating of these sites remains tenuous and open to question. It is possible that the technology of building fish traps is older than the postulated dates and that earlier evidence of their use was inundated as sea levels rose from their late Pleistocene lows about 15,000 years ago.

Stone fish traps have been recorded at De Hoop, Skipskop, Struis Point, Struis Bay Harbour, Cape Agulhas and further west towards Pearly Beach and Danger Point. There are indications that there may be fish traps at Slangkop and Kommetjie on the Cape Peninsula. Sources have also reported an occurrence at Vlaminck Vlei near the mouth of the Berg River on the West Coast and possibly also on the Alexandria Coast northeast of Port Elizabeth in the Eastern Cape. Recent work by the NSUH has confirmed the presence of eleven clusters of fish traps in the area between Still Bay and Mossel Bay.

The traps were constructed and utilized by pre-colonial hunter-gatherer communities and to a large extent fell out of use as the indigenous population of the area was displaced by the European settlers during the 18th-century. In a few instances, however, the descendants of both these indigenous populations and the European settlers still maintain and use some of the traps.

From an archaeological perspective, the fish traps are important as they represent arguably the oldest extant working technology in South Africa. The investment of time and labour involved in building and maintaining these structures suggests the aggregation of small hunter-gatherer groups at certain times of the year or month to pool their labour for mutual benefit. The traps therefore also offer tantalizing suggestions regarding the co-operation between hunter-gatherer groups to collectively exploit marine resources.

### What are They?

The South Western Cape coast fish traps are essentially artificial rock pools consisting of low, stone walls built from beach cobbles and rocks available on site. The positioning of the traps and the form and profile of the walls themselves, indicate that their builders had a sound understanding of shoreline dynamics and the fundamentals of engineering.

The traps are generally located in the inter-tidal zone on shallow rocky platforms overlain with loose rock, cobbles or boulders. These wide platforms effectively increase the size and extent of the inter-tidal zone and, because they are shallow with a gentle slope, are generally subject to less dynamic wave action.

The packed walls are constructed of loose rock cleared from the rocky substrate usually forming a series of linked semicircles, and were built to a height that allowed them to be inundated twice a month at spring high tide. Alternatively,



**Figure 1: Geelkrans, near Still Bay; fish traps from the air; note the trap walls and the substantial packed tongue of rocks on the left**

**Figure 2: Noordkapper Point, Still Bay; these traps are still maintained and used by a group of local farmers**



**Figure 3: Noordkapper Point, Still Bay; aerial view of trap complex showing unmaintained pre-colonial traps in foreground**



natural gullies in the bedrock were utilised by simply being dammed with rock walls to the height of the surrounding bedrock.

The profile of the walls is interesting too. Their inner faces are vertical, making it more difficult for fish to escape once in the pools, while the outer or seaward faces are sloped. This serves the dual purpose of providing less resistance to the force of the surf while at the same time providing an easy entry for the fish. Fish swim or are washed over the walls at spring high tide and remain trapped in the pools behind the walls as the tide recedes, where they can be more easily collected by people.

## Threats

Most of the identified fish traps are no longer in use, and their walls have collapsed. Despite centuries of neglect, most of the traps still retain their spatial integrity and their extent and character is easily discernable. They are however subject to an increasing range of impacts that threaten their survival, and these are largely the result of increased human pressure on the coast and its resources.

Coastal developments have increased the population in the areas these traps occur. This has exposed the traps to human interference which ranges from damage by fishermen who break down walls looking for bait, to the destruction of traps for the construction of harbours or even their conversion into tidal swimming pools. There is also a degree of unintentional damage to the traps simply caused by public ignorance of their existence and importance. Most of these threats can be managed by increasing public awareness of the traps, and by encouraging local coastal communities to understand their significance and importance and to take ownership of “their” traps.

A recent potential threat to some of the fish traps has arisen as the result of South Africa’s growing tourism, particularly its eco-tourism industry. In a number of places along the

South Western Cape coast, local communities and tourism operators have proposed the rebuilding and reuse of fish traps. This raises complex issues about the reuse of archaeological heritage, and poses questions about whether the re-building and reuse of traps would compromise their archaeological integrity. At the same time the argument is made that the reuse of sites such as these has a positive educational role, will raise public awareness about the need to preserve such sites, and should be encouraged. The answer probably lies somewhere in the middle, and will need to be debated and negotiated by the heritage sector, tourism operators and local communities.

## Conclusion

The current work by the NSUH should result in a complete record of the South Western Cape Coast’s existing stone fish traps, their range, extent, location and condition. This information will form the basis for decisions regarding the future conservation, protection and possible reuse of these important pre-colonial sites, and will also add to our sum of knowledge about this oldest extant, yet barely understood indigenous technology.

At the same time, the NSUH is confident that the considerable public interest the surveys of the fish traps have generated in the areas where they have been undertaken will also be seen in other areas. If the surveys can contribute to the creation of a local community interest in and concern for its maritime archaeological heritage they will have contributed to the conservation and protection of these important sites.

## Information Sources

- Avery G. 1975. Discussion on the age and use of tidal fish-traps. *South African Archaeological Bulletin* 30:105-113.
- Goodwin, AJH. 1946. Prehistoric fishing methods in South Africa. *Antiquity* 20:1-8.