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A PREVIOUSLY UNRECORDED OBSIDIAN SOURCE IN NORTHLAND?

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Archaeologists have identified four separate obsidian sources in far northern New Zealand - Weta, Waiare and Pungaere (all in the vicinity of the township of Kao), and Huruiki (on the east coast, north of Whangarei). Characterisation analysis has shown that the Kao sources cannot be chemically distinguished from one another, although they are distinct from Huruiki material (Neve et al. 1994: 106). Accordingly, Northland obsidian has been generally described in terms of two source areas - Kao and Huruiki. Obsidian is associated with geologically recent volcanic events, which is not a phenomenon of the Northland region. The discovery of deposits outside the Kao or Huruiki source areas should therefore occasion more than passing interest.

During the mid-1980s I stumbled across a reference by Morgan (1927) to an apparently additional obsidian source in Northland. The relevant passage is reproduced here in full:

Obsidian (Volcanic Glass - not a mineral, but a rock): Takahue S.D., at a spot thirteen miles from Kaitaia (G.S., 1923 - specimens from T. McCarthy, Kaitaia, Jan. and June, 1923 - the material is said to occur in a large dyke-like mass)... (Morgan 1927: 72)

The rather enigmatic reference to a spot 21 kilometres (13 miles) from Kaitaia does not help much in fixing the exact location of the source, but given the geological makeup of this part of Northland it almost certainly cannot be north of the town, where the terrain turns into largely sandstone and former swamp country. The region east or southeast of Kaitaia is a more

geologically likely location for obsidian; the Waiare and Pungaere sources are approximately 45 kilometres east of the town (as the crow flies). Some years ago I made an effort to better define the location of the reported Kaitaia source by examining old survey plans held with the then Department of Lands and Survey, and by attempting to track down the descendants of T. McCarthy. Neither approach yielded much additional information, although I feel a more a comprehensive investigation along these lines could turn up useful clues.

Three possibilities can account for this report of an archaeologically unrecognised source:

1. The report is based on erroneous information and the source does not exist. The use of hearsay information to identify previously unrecorded obsidian sources can have its pitfalls. At least once in the past misleading information has been unwittingly used to record a non-existent source (see Ambrose and Johnson 1986). Verification of the existence of the source can only come about by first-hand observation. The Takahue Survey District covers a large area, much of it steep country under dense bush, so undertaking a field expedition without prior knowledge of where obsidian might be found is not something which should be lightly contemplated.

2. The report refers to one of the Kaeo sources. The problem with this is that the nearest Kaeo source is much more than 21 kilometres (13 miles) from Kaitaia. Even if the distance has been given incorrectly Kaeo obsidian deposits occur in the form of pebbles and boulders and not as "large dykes", as reported for the Kaitaia source. Additionally, Morgan (1927: 72) specifically mentions Kaeo obsidian (at Pungaere) separately from the Kaitaia source. Nevertheless, the account could plausibly refer to a previously unrecorded inland deposit of the general Kaeo source group.

3. The report may be the first notification of a previously unrecorded, geologically distinct obsidian source in Northland. If this turns out to be the case then it would be imperative to obtain a chemical signature for the Kaitaia material to determine if it is distinguishable from other Northland sources and from Mayor Island obsidian, which possesses a chemical fingerprint closely matching that for Kaeo (Neve et al. 1994: 106).

In conclusion, verification of the presence of an additional Northland obsidian source awaits an expedition by an intrepid archaeologist or geologist. If the

existence of a new source is proven then chemical analysis will be required to determine whether it falls within the range of previously "fingerprinted" obsidian or whether it represents a compositionally distinct and formerly unrecognised source.

REFERENCES

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- Neve, S.R., P.H. Barker, S. Holroyd and P.J. Sheppard. 1994. Obsidian sourcing by PIXE analysis at AURA2. *New Zealand Journal of Archaeology* 16: 93-121.