

Comments on Håkon Glørstad: 'Where are the Missing Boats?'

MISSING BOATS – OR LACKING THOUGHTS?

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At the Wenner-Gren Supper Conference held at Harvard University on 6 November 1953, the British archaeologist Christopher Hawkes described a four-step 'ladder' of inductive reasoning. The lowest and most easily accessible level is to infer from the archaeological phenomena the techniques producing them. The next and more laborious is to infer the subsistence-economics of the human groups concerned. To arrive at former social/political conditions is generally more difficult, and to infer religious/ spiritual factors by archaeological methods alone is the hardest of all (Hawkes 1954). To me, this ladder still stands upright and deserves to be remembered even sixty years later.

Since there are more alternatives than we realize in archaeology, we need to have imagination and an open mind when we examine evidence, if any, to avoid becoming stuck in orthodoxy. Accordingly, Håkon Glørstad in his article 'Where are the missing boats?' starts by investigating and partly deconstructing three established archaeological agreements in Norway, which are also relevant within most other parts of the world:

- drawing inferences and arguing from negative evidence
- actualism: that the present situation is a key to the past
- use of the past to understand later historical processes.

Glørstad, who has earlier climbed the higher steps of the ladder of inference remarkably well, takes up the challenge to investigate a level of another order than those outlined by Professor Hawkes: situations where 'the critical mass' – the object itself – is considered to be totally absent. The discussion of boat types and economy in the early Preboreal which Glørstad now revitalizes is highly welcome, as most earlier research has more or less axiomatically proclaimed sea-worthy craft to be an absolute presupposition for a rapid colonization of the south-west Swedish and the long western and northern Norwegian coastlines in the course of the first few centuries, or human generations, around and after the Pleistocene/ Holocene transition (e.g. Gjessing 1945, Bjerck 1994, 2008b, 2009, Schmitt 1994, 2013, Bang-Andersen 2003, 2012, Fuglestad 2012). Glørstad's main concerns are, as always, clearly presented, well problematized, rather easy to follow despite some short cuts and short circuits which I will return to later. However, they are not always easy to agree with. In particular, by questioning the actual importance of boats during the early Preboreal and proclaiming that dugout canoes were a far more likely boat type than skin boats along the coasts, he navigates into waters which are both very exposed and tricky. It seems impracticable within the frame of a short discussant paper to meet with all the claims which could be commented on. I will concentrate on three major points which are especially critical to the discussion:

- 1) the coastal environment in Norway during the early Preboreal (before c. 8800 cal. BC)
- 2) the former function of the flake axes in typical coastal/marine environments
- 3) log boats versus skin boats as man-made objects and seagoing craft

Environment and economy. The natural environment prevailing during the first two or three centuries after the Pleistocene/Holocene transition (9500 cal. BC) is, as Glørstad also admits, essential as background to understanding a way of life that includes the modes of sea communication. Despite this, to a large extent he uses the climatic and vegetational situation in the last part of the Preboreal, and partly also in the Boreal and early Atlantic in south-east Norway and south Scandinavia to describe the possibilities and human challenges which existed along the 3500km-long Norwegian outer coast 1000 years earlier. By so doing he transfers almost 'paradisic conditions' with a mild climate, calm waters, sprouting vegetation and sedentary populations. I find this rather speculative and difficult to accept. Even though air temperatures radically improved compared with the cold conditions prevailing during the earliest phase of the Older Dryas, the Norwegian coast still seems to have been covered by a pioneer-type, mixed *Betula* dominated, brushwood vegetation. Regular forests first developed during the *Corylus* rise c. 8800 cal. BC (Paus 1989, Sørensen 2005).

With the sea partly filled with ice-bergs calved from valley glaciers and affected by sudden changes in currents and by katabatic winds from the inland, humans living along the coasts of west and north Norway certainly faced great logistical challenges (Bjerck 2008b, 2009). Unpredictable natural settings seem to have existed in this early stage also in the Bohuslän and outer Oslo-fjord archipelagos (Schmitt *et al.* 2006, 2009). Conditions along the open sea of the western coast of Norway can scarcely have been less demanding. Indeed, it seems to me that a comparison between early Postglacial western Norway and present-day central west Greenland is far more relevant than what Glørstad seems to believe.

The fake axe lead. Glørstad attaches a vital importance to the distribution and use of flake axes in his discussion of what type of boat was most likely used during the colonization of the Norwegian coast, and during later periods, by postulating that this widely occurring artefact type is a special tool for felling timber and hollowing out log boats. His allegation that these axes have been found all along the coast and were used only in the Preboreal is only partly correct, considering that flake axes are missing in certain areas in west Norway, e.g. along the 200km-long stretch of coast between the Sula islands and the Stadt promontory. In addition at least some of the axes, such as *S 5740* found 1931 in the Egersund area, are doubtless of later Ertebølle types.

Glørstad interprets all of them to have been wood-working tools, despite use-wear analyses indicating that these objects, at least in some areas, were mainly used during the late Preboreal as scrapers on dry hide (Kindgren 1995). The flake axes have also been given other interpretations on which he does not comment seriously. According to a well-founded and highly likely theory the flake axes, at least the wide-edged variant, have functioned as Inuit *ulus*; flenses or knives for removing seal blubber which was later processed into oil for impregnating skin boats (Schmitt *et al.* 2009, Schmitt in press). Far less convincingly, the flake axes have been interpreted as clubs used from boats to kill (hypothetically) reindeer while swimming across narrow straits along the Norwegian west coast (Fuglestad 2012).

Given that the axes could be used to fell and dig out tree trunks into boats – a premise which seems unlikely to me, Glørstad faced another problem: as stated above, forests with trees long and wide enough for log boats hardly existed in the relevant areas during this early stage. Glørstad, however, tries to solve the problem by taking a U-turn and towing in driftwood, which normally appears twisted, salty and age-hardened, to add buoyancy to his axe/boat theory.

So, how were the boats? Demanding environmental conditions on a year-round basis, seen together with the actual geographical setting of the human subsistence activities during the early Pre-Boreal – on islets in the outer skerries and on islands, on promontories and at fjord heads in inshore waters, clearly demonstrate the necessity for sea-worthy vessels and ultimate seamanship along the Norwegian coast. A total, or almost complete, lack of wood in the shape of long-boled, at least 70– 80 cm wide, straight and more and less knotless *Quercus*, *Pinus* or *Populus* trunks on the Norwegian coasts during the colonizing phase makes, as far as I can see, the production of log boats, as claimed by Glørstad, totally unlikely.

The only logical explanation is what he rejects: a widespread use of relatively short (c. 5–8 m long) *umiak*-like rib-framed skin boats, which are light-weight, easy to manoeuvre, sea-stable and dynamic in waves (Gjessing 1942, Ames 2002, Bjerck 2008b, Schmitt in press). All the materials needed for building these vessels: framework, ribs, sinews, seal skins and waterproofing were at hand – everywhere. I do not at all follow Glørstad's way of reasoning when he rejects the use of such boats during the Mesolithic by stressing that *umiaks* are not proved to have existed earlier than the Thule culture. Daily life and population movements in the high arctic during both later and prehistoric times simply presupposes crafts with far higher seagoing efficiencies and safety margins than log boats which, when compared with skin-framed counterparts, are more or less floating, unstable logs. This is confirmed by experimental use of replicas of Danish Mesolithic dugouts (Christensen 1990).

A 'critical mass' which contributes to deepening our understanding of the missing boats *de facto* exists: Stone Age rock carvings in central and north Norway depicting exactly what researchers for a long time have interpreted as *umiak*-like skin boats (Gjessing 1936, 1942, Clark 1952). It is difficult to understand why Glørstad, in his article, does not take this expressive source category into account for serious consideration.

Though I disagree with a number of the premises put forward by Glørstad, and accordingly doubt the validity of some of the main conclusions, I welcome his fresh initiative and the unorthodox discussions he initiates by turning some of the pillars of Norwegian Stone Age research upside-down, and thereby awakening old elephants. My main objection applies to his claim that the situation during the colonizing phase in the early Preboreal can easily be compared with, and explained by, the situation during the rest of the Mesolithic. On the contrary, I would say: the challenges presented to the pioneer populations along the weather-beaten east Atlantic and Barents Sea coasts, may not, and should not, be understood in the light of the totally different climatic, floristic and faunal conditions prevailing alongside the calm in-shore waters and rivers in east Norway and south Scandinavia several thousand years later. Even today one must ask one self, what would I chose if I want to paddle along the outer coast of Norway – a log boat or an *umiak*?