Bell-Beaker communities of Lindisfarne, North Berwick Law, and Yeavering Bell

Stuart L. Harris, August 2013, Callander, Scotland; stuhar@onlymyemail.com

Lindisfarne, the oldest Bell-Beaker city in the UK

The **Holy Island of Lindisfarne** has the oldest Bell-Beaker city in the UK (Figures 1 and 4), dated to ~2080 BC. **Bell-Beaker** immigrants built the post-and-beam city to sell copper from Spain, tin from Cornwall, and other exotic products. The city mixes various size buildings without a grid of streets. Several buildings possess an open interior with a storehouse in the center. A palisade with square towers protected the city, which may have housed 2000 people. Found on unplowed land using aerial photographs from Google Earth, these buildings resemble older buildings from Finland, but smaller. Nearby Bell-Beaker communities at North Berwick Law and Yeavering Bell have similar buildings (Figures 1, 2 and 3).

Figure 1 Bell-Beaker city at Lindisfarne. Photo Google Earth.

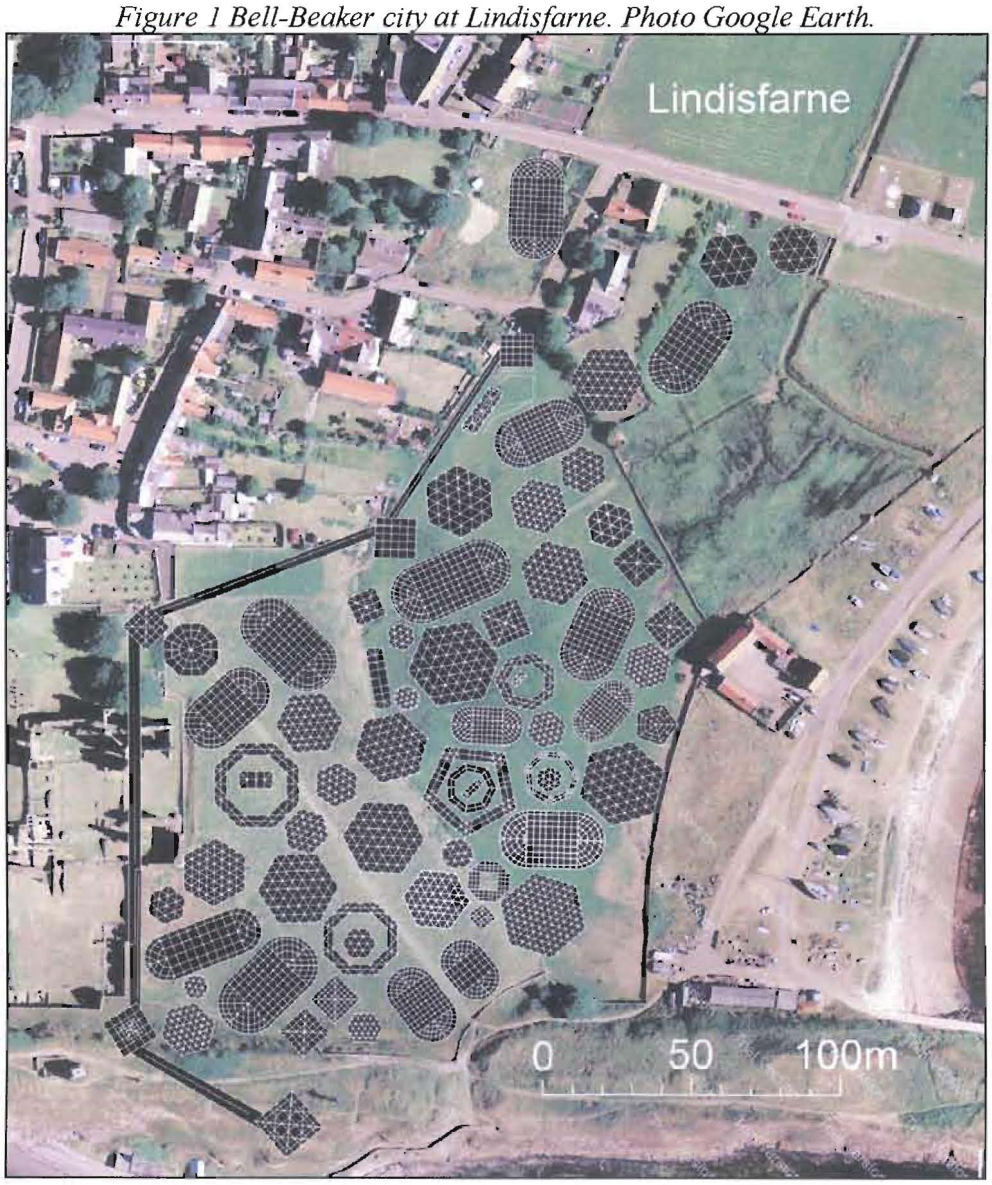
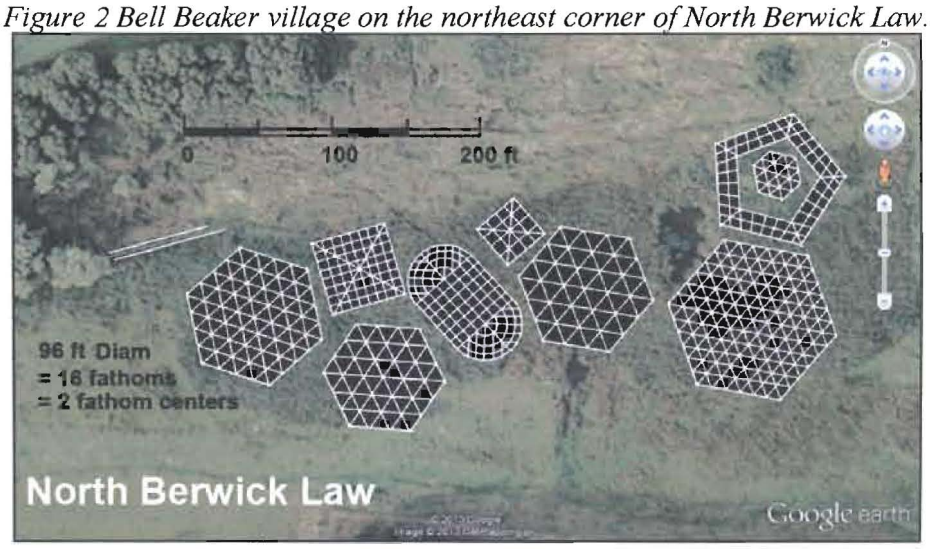


Table of Contents

North Berwick Law, a major Bell-Beaker community

Another Bell-Beaker town with the same style of buildings is at the base of North Berwick Law, a solitary volcanic plug near the sea, fifty miles northwest of Lindisfarne (Figures 2 and 4). This town may have been more extensive, but the surrounding land has been plowed, limiting the applicability of aerial photography. Absent from these buildings is an octagonal cattle barn, which suggests that farming was the principal occupation then as it is today. The pentagonal building was a school for men, hexagonal buildings were halls, square buildings were store houses, horse-track building a meeting hall. Posts of the hall on the left were exactly two fathoms apart (12 feet), inches-feet-fathoms being the common units of measurement.

Figure 2 Bell Beaker village on the northeast corner of North Berwick Law.



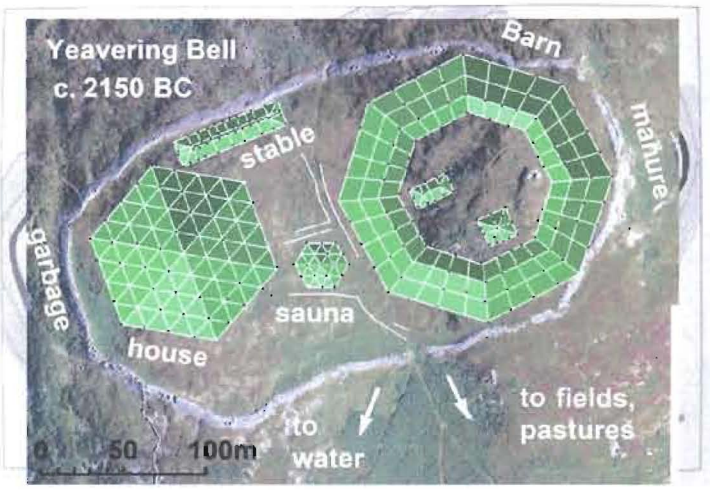
Yeavering Bell, the center of Bell-Beaker administration

West of Lindisfarne, a large farmstead occupied the twin summits of Yeavering Bell (Figure 3)[1]. It preceded Lindisfarne by about two generations, and is thought by archaeologists to have administered the entire region. A low wall of heavy stones surrounded the site, unique in

[1] See Stuart L Harris, Yeavering Bell: 'pig pen and cattle pasture', 2013

England. The design of the two buildings plus wall comprises an inscription in Old European that reads 'pig pen and cattle pasture' in Finnish. The barn encloses 130,000 square feet, large enough to hold two thousand cattle plus feed. The hall with 100,000 square feet could have housed 200 people.

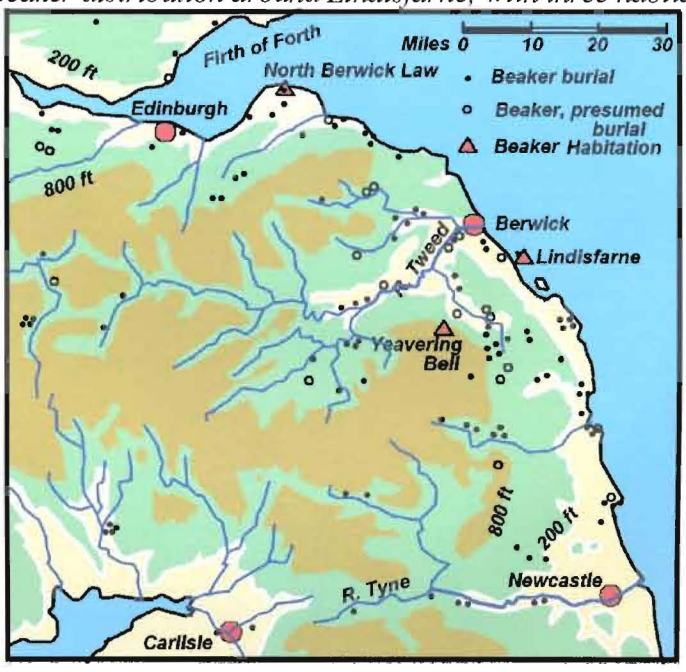
Figure 3 Yeavering Bell soon after 2150 BC, looking north, with a large house and barn.



Bell Beaker presence in the UK

Within fifty miles of Lindisfarne, over a hundred Bell Beaker cist burials have been found, mostly along rivers, below 800 feet elevation (Figure 4). Red triangles identify the three Bell-Beaker sites in this report: Lindisfarne, North Berwick Law and Yeavering Bell.

Figure 4 Beaker distribution around Lindisfarne,[2] with three habitation sites.



[2] Distribution map of Beakers in the Tyne-Forth region, based on Mitchell, PSAS, LXVIII (1933-4), 174-78; and Tait, Beakers from Northumberland, 1965, 65-70; Audrey S. Henshall, Isla J. MacInnes, A Beaker Grave at Springwood, Kelso, Roxburghshire.

Bell Beaker presence in the UK

The Bell-Beaker trademark was a decorated copper-colored clay beaker that looks like a bell when turned upside down. Its origin lies in the copper mining region of Galicia and Asturias in northwest Spain.[3] These mines flourished for two centuries during the Copper Age, until eclipsed by other sources.[4] Upon completion of a successful trade, participants would drink beer or mead from a Bell Beaker, which the recipient could keep as a souvenir. Found all over Europe, these souvenirs could end up in older buildings or in younger graves, making dating treacherous. For example the beaker on the left of Figure 5 from West Kennet was placed in an old long-barrow, built before 2500 BC. The beaker on the right from Csepel Island, Budapest, likely dates to 2100 BC.

Figure 5 Left. Bell Beaker from West Kennet long-barrow dated to before 2500 BC. Right. Bell Beaker from Budapest dated 2500-2100 BC.

In Middlesex, about a dozen pieces of Bell Beaker pottery have been found, mostly in the Thames west of London, but no graves or structural remains. Unlike their predecessors, they buried their dead in individual graves, called cists, a practice still followed today. They raised cattle, cultivated flax and barley, and wove fabrics. The earliest beakers, classified as Cord-zoned Beakers, are found only in North Britain, with a single exception on the Thames.

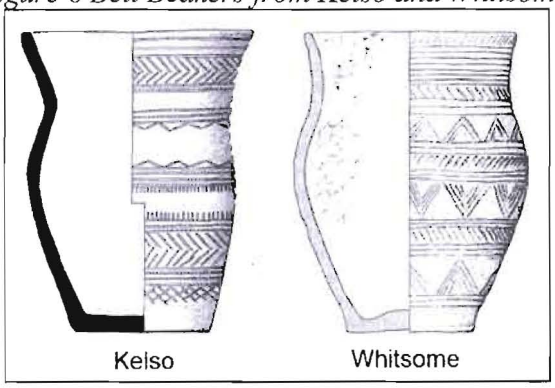
Around Lindisfarne, Bell Beakers have been found at Northumberland, Yorkshire, Midlothian, Fife and Aberdeenshire. Two examples have designs of Dutch derivation, which is extremely significant (Figure 6):

> Twenty miles west of Lindisfarne, on the river Tweed at Kelso, a burial cist contained a broken Bell Beaker decorated with a design of Dutch derivation.
>
> Five miles north of Kelso, at Doons Law, Whitsome, a burial cist contained an intact Bell Beaker decorated with a design of Dutch derivation; a jawbone yielded a radiocarbon date of 2135-1935 BC; this beaker new resides with the Scottish Borders Museum Service.

[3] "Two of the tanged daggers from Scotland (Gerloff 1975, 36-7, nos 2 & 11), three halberds and one axe are made of BB-metal ('Bell- Beaker'), including a high-nickel composition consistent with copper from a mine in the Asturias region of Spain"; Ian Shepherd, Gordon Barclay; Scotland in Ancient Europe, the Neolithic and early Bronze Age; 2004, p. 206.

[4] The copper mines of El Armo in Asturias were rediscovered in 1888. Fire-setting was used to follow the veins into the mountain, the galleries being narrow and polished by the hosts of miners, who crept in and out. Only stone tools were found, hammers, pounding and rubbing stones, horn picks. Apart from splinters, twigs of resinous timber wound with greased strips of skin served as lights. The galleries slope slightly and they are reached by vertical shafts. Many bodies of miners were found here. The mines were probably worked in the early Bronze Age, and then again in Roman times. The shafts have been carefully hidden, probably when work was stopped during an invasion or a war." Robert J. Forbes, Studies in Ancient Technology, 1964, p 142.

Figure 6 Bell Beakers from Kelso and Whitsome.



Bell Beaker Traders

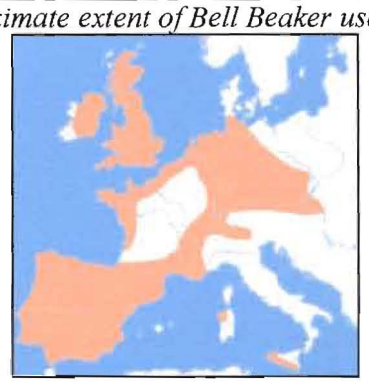
In addition to copper from Spain, Bell-Beaker traders supplied tin from Cornwall, linen from Egypt, intricately woven cloth and olive oil from Crete, spices from the Middle East, paper from Belgium, reindeer skins for sails from Finland, amber from Poland, tar and black paint from Sweden. In return they may have taken coal to make steel and to burn in funeral pyres.

> At Newcastle, high-quality coal washes up on the beach from exposed outcrops along the banks of the River Tyne.
>
> High-quality iron to make steel came from north of Västerås in Sweden, which once had a mountain of pure hematite.
>
> Friesland employed steel knives (called 'silver'), whose manufacturing center and source of materials were state secrets, not revealed in their chronicles.[5] The value of a steel implement was legendary.
>
> Most people were cremated; outcrop coal for fuel has been detected as part of funeral pyres, where it may have displayed great honor.

Across Europe, the distribution of Bell Beakers is highest on transport routes - the sea coast, river valleys, river fords and mountain passes. In just two centuries, Bell Beakers and associated artifacts (wrist guards, copper daggers, imitation daggers, cist burials) spread across an immense area: Ireland, England, Scotland, southern Norway, Denmark, Sweden, Finland, Belarus, Poland, Germany, Netherlands, Belgium, France, Switzerland, Austria, Hungary, Czech Republic, Serbia, Beilo-Russia, Romania, Portugal, Spain, North Africa, Mallorca, Sardinia, Sicily, Italy, Malta, Croatia, Albania, Macedonia, Crete, Greece. The map below (Figure 7) from Wikipedia fails to show the full extent of this trade network.

[5] "I was able to buy a harbor and a piece of land in exchange for a boat and some **silver implements**." OLB Ch. 15 from Minno's writings in Crete. "When they were well established, the Magyarar sought our friendship, they praised our language and customs, our cattle and **silver weapons**, which they would willingly have exchanged for their gold and silver ornaments." OLB, Ch. 23, inscribed on the Waraburch. "But when we sold them some of our **silver weapons**, everything went well. They also wished to buy our amber, and their inquiries about it were incessant. ... The folk-mother advised that they should sell everything except **silver weapons**, but no attention was paid to what she said." OLB Ch. 24: History of Neef Teunis and Neef Inka.

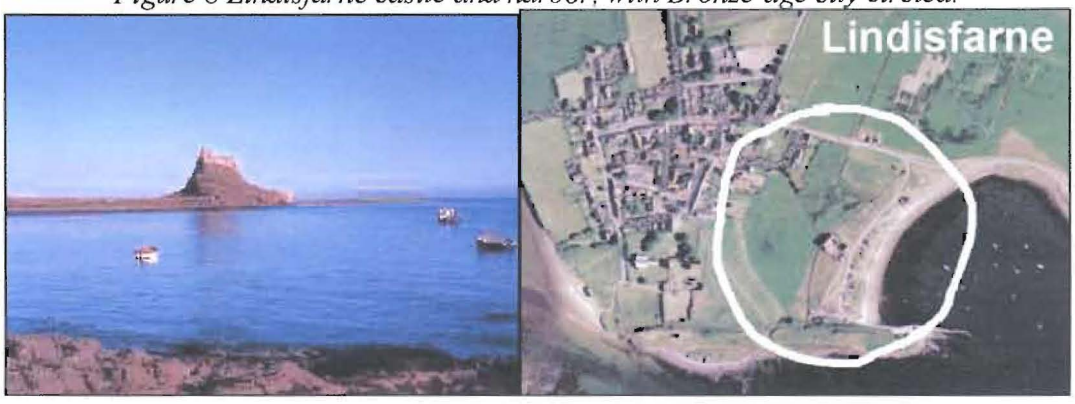
Figure 7 Approximate extent of Bell Beaker usage. (Wikipedia)



The site of Lindisfarne

Lindisfarne lies a mile off the coast, reachable at low tide across a causeway on mud flats that thousands of tourists cross every day. It has a high tor suitable for a beacon to guide ships in from sea, and a thousand acres of crop and pastureland.

Figure 8 Lindisfarne castle and harbor, with Bronze-age city circled.



The overview above shows how the town sits back from the harbor. The area between town and harbor has been grazed but not plowed, which allows aerial photography to reveal faint traces of post-and-beam buildings. Figure 1 shows sixty-five of these buildings, colored black.

> White lines represent beams between posts; post locations survive as spots of darker vegetation. Most spots are not post holes, only those that lie in straight lines, equally spaced, surrounded by parallel rows of equally-spaced spots, all arranged in precise geometries.

Administration likely came from Yeavering Bell, a slightly older complex that encompasses two mountain tops fifteen miles to the southwest, visible through a gap in the foothills. Within a fifteen-mile radius of Yeavering Bell lived a large number of people who could supply the port with necessities. They cleared vast tracts of forest to graze cattle and pigs for meat, cheese, butter and hides; milled flour from wheat, oats and barley; loaded horse-drawn sleighs with timber, planks, firewood and peat to build, repair and heat the town; and brewed a variety of alcoholic drinks from honey, apples, barley and berries.

The name **Holy Island** (*Insula Sacra*) derives from Saint Aiden of Ireland, who established a priory in 634 AD to administer the region until sacked in 793 AD by Vikings in their first raid. Perhaps Saint Aiden chose this site because it held special significance two millennia earlier.

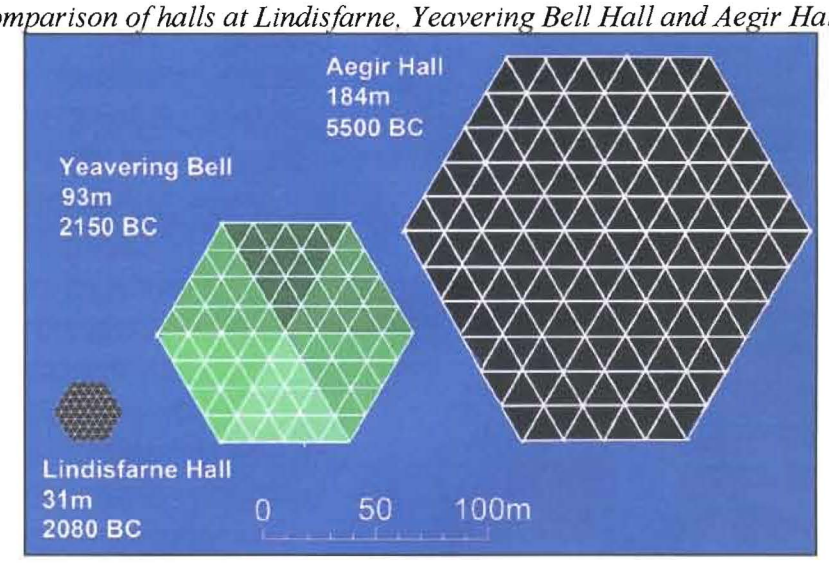
The name **Lindisfarne** has perplexed historians for generations. Both the Parker Chronicle and Peterborough Chronicle annals of AD 793 call it *Lindisfarena*. It may come from Finnish *lindisille vaaran* meaning 'hill for little birds', which applies to the rocky tor.

lindi is a girl's name meaning 'little bird' from *lintu* meaning 'bird, girl'
lindisille means 'for little birds'
farne (pronounced varn) comes from *vaaran* meaning 'hill'.

Construction of Lindisfarne buildings

An earlier civilization in southwest Finland had similar buildings, though considerably larger, as are the buildings at Yeavering Bell (Figure 9).

Figure 9 Comparison of halls at Lindisfarne, Yeavering Bell Hall and Aegir Hall in Finland.



The shape of buildings varied by function: a house was hexagonal, a barn octagonal, a male school five-sided, a feminine school seven-sided, a storage house square, a stable rectangular, a meeting house oval, a guard tower square. Dimensions were in fathoms.

> Lindisfarne has so many oval buildings that they must have had a different function, most likely storage of supplies and boats. Many additional post holes lie within these buildings, perhaps to support racks of shelving.

Large buildings required special measures to illuminate the vast interior and support the roof. Roofs were stepped; transom windows in the vertical steps were covered with translucent sheep skin. Houses were built on a slope or around a hill to reduce the length of the center posts, and the floor was terraced to match the slope of the hill. The floor might be packed clay or wood planks in a herringbone pattern. Walls and roof were made of planks split from pine, 3 inches thick, 18 inches wide. Posts were spruce, spaced on increments of a fathom (6 feet): 5, 6, 7 or 8 fathoms. Beams were pine, which flexes without breaking.

Lindisfarne buildings, being small, did not need transom windows to illuminate the interior, so the roofs could omit steps. Spruce was unavailable to make posts, so they may have substituted oak, which resists rot. Roofs were sod underlain by plentiful birchbark laid on pine planks. Like slate roofs, sod roofs can last a hundred years because birchbark is 60% creosote. Walls likely were planks, as there is no hint of a line of post holes that would accompany wattle and daub construction. There were no foundation stones, nor stone-paved streets, nor stone buildings. Pottery was nearly non-existent, wood and baskets being preferred.

By combining three histories - Greek, Frisian and Irish - an identity of the people emerges. The Frisian chronicle Oera Linda Boek (OLB) states they spoke and wrote in Finnish.

In 2186 BC, in the seventh year of drought, Gaia and her husband Ouranos led a migration of 1200 men and women with their animals from Galicia to search for lands in the north that still had rain. They spoke Finnish because both names are Finnish - *Kaja* means 'dawn', *Kouran ahjs* means 'hand metal, ring'. They crossed Spain and France before meeting their first real obstacle. Frisian spies watched as fierce Saxons barred their way near the Rhine. After long debate, the migrants divided, half going east to Poland under Gaia, half going west to Ireland under her relative Cichol Grenchos.

At the last river in France, **Cichol Grenchos** stopped to build six longboats to carry 600 Fomorian men and women to Ireland. *Cichol Grenchos* is Finnish, *Kyy-coolle Kyy-renkas*, meaning 'Serpent gathering, Serpent ring'. His legacy survives in the form of a double-headed serpent ring, once common throughout Ireland. The Fomorians fared poorly because both England and Ireland were deserted, no animal left alive.[6] French rustlers had stolen their own animals left lightly guarded on their first crossing to Ireland. For two hundred years, Fomorians lived on fish and fowl. Without milk supplements, and animals to plow, their birth rate plummeted, so that the next wave of immigrants easily defeated them.

Gaia and her people did much better. From Poland they spread out to Estonia, Finland and eastern Sweden. Their success attracted other immigrants who greatly swelled their population. Frisians called them Magyars, governed by hereditary kings and queens, in contrast to Danes and Frisians, who elected their leaders. Magyars were great warriors and navigators, and were occasionally elected by Frisians to lead their forces in battle. They were also skillful diplomats, and repeatedly avoided protracted war by arranging peace treaties that lasted millennia.

By 1900 BC, two commercial empires competed amiably for trade in the Baltic and North Seas. Frisians held sway over western Sweden, Denmark, Netherlands, England, eastern Ireland, coastal France, southwest Spain, and parts of North Africa, Sardinia and Sicily. Magyars traded with Finland, eastern Sweden, Estonia, Poland, Norway, western Ireland, northwest Spain, Portugal, Tunisia, Crete and Tyre.

Left unsaid by OLB was that Magyar ships controlled transatlantic trade in gold, tin and copper, and through their agents, the metals trade in the Baltic, Atlantic and Mediterranean. This trade network was backed by a huge support system in North and South America. The greatest navigator was a Magyar admiral named Inka, who solved the mystery of how to cross the Atlantic, knowledge that was lost in the catastrophe of 2345 BC.

Inka-Kylix-Neptune, grandson of Poseidon

Who was Inka?

Greek history called him **Kylix**, while Roman history called him **Neptune**. Inka-Kylix-Neptune was the son of **Thasos** and **Argiope**, grandson of **Poseidon** and **Libya**, and great-great-grandson of **Gaia** and **Ouranos**, who had led the migration from Portugal to Poland in 2186 BC.

Inka-Kylix-Neptune and his brother **Teunis-Phoenix** were born in northeast Friesland around 2130 BC, at **Alderga** on the mouth of the northern branch of the Rhine (which may have been

[6] The most likely reason for the absence of animals was deadly hydrogen fluoride blown across the sea from Hekla in Iceland, which erupted in 2345 BC.

called Alderga). OLB noted that "at Staveren, along the Alderga, the best ships of war were built of hard oak that never rots."

When Inka and Teunis came of age, their grandfather **Poseidon** sent them to apprentice navigation under Pharaoh. In Egypt they learned the secret of how to cross the Atlantic, either from historical documents or from sea captains. Every 30 years, the reining Pharaoh would send a fleet to Central America, to a special port under his dominion, to honor their dead and to bring back tobacco and other rare items.

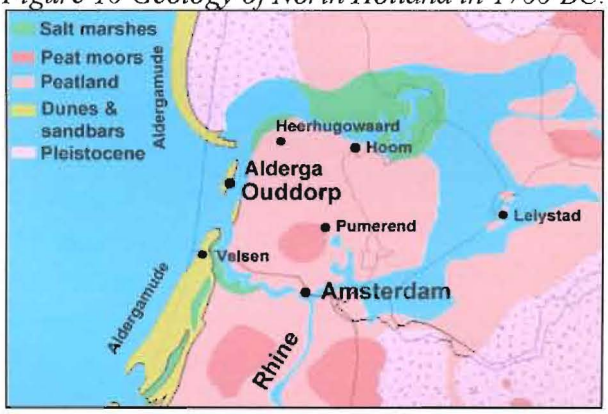
Alderga, birthplace of Inka

In 1870, in an address to the Frisian Society, Jan Ottema identified **Ouddorp** as the ancient site of Alderga, close to Alkmaar, home of Teunis, Inka, Thasos and Argiope.

> Neptune, called by the Etrurians Nethunus, the God of the Mediterranean Sea, appears here to have been, when living, a Friesland Viking, or sea-king, whose home was Alderga (**Ouddorp**, not far from Alkmaar). His name was Teunis, called familiarly by his followers Neef Teunis, or Cousin Teunis, who had chosen the Mediterranean as the destination of his expeditions, and must have been deified by the Tyrians at the time when the Phoenician navigators began to extend their voyages so remarkably, sailing to Frysland in order to obtain British tin, northern iron, and amber from the Baltic, about 2000 years before Christ.

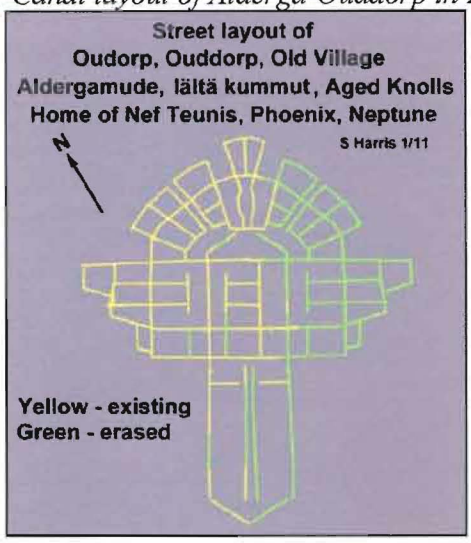
Alderga comes from Aldergamude, the name of barrier sand dunes, which in turn comes from Finnish *Iältä kummut* meaning 'Aged knolls'. In 2100 BC, the landscape appeared much different from today. Alderga faced the North Sea, on the leeward side of a barrier dune, on level ground 8-10 feet higher than the sea. A map of 2100 BC would resemble the map of Figure 10 from 1700 BC, except land would have been somewhat higher and inland seas slightly smaller. Alderga controlled access to the northern branch of the Rhine that flowed past Amsterdam, making it a powerful and wealthy port.

Figure 10 Geology of North Holland in 1700 BC.



The remains of Alderga, which Greeks called **Phoenicia**, looks like a stylized Phoenix bird. A dense network of narrow canals criss-crossed the city, so that every home lay within two blocks of a canal, each spanned by numerous wooden bridges. Many canals still exist, others have been converted into streets. Houses were made of wood without stone foundations, so little remains.

Figure 1: Canal layout of Alderga-Ouddorp in 2100 BC.



War in Sweden in 2105 BC

When the brothers returned to Friesland, they were elected admirals of a Danish fleet sent to rescue Swedish settlers who had been attacked by Magyars at a fort now called Trollhättan on the night of the Yule feast in 2105 BC. Here they discovered that the Magyars in turn were being attacked by Goths from southern Sweden. Their aunt Telephassa arranged a truce, loaded both armies onto their ships, sailed all the way around Sweden, and surprised the Goths from the rear. Again Telephassa arranged a truce, and discovered the reason for the dispute. The Magyar prince Apollo had inherited a famous oracle named Python, and soon barred the Goths from using it. Deprived of revenues from pilgrims travelling to the oracle, the Goths went to war. Telephassa devised a solution - half the year Apollo would have it, half the year the Goths would have it. This truce lasted a thousand years.

Rather than returning to Denmark, the fleet settled in Sweden around an inland sea west of Stockholm, whose commercial hub was Thebes (modern Västerås). Their commander Wodin, son of Telephassa, married the daughter of a Magyar king and had four children. Seven years later Wodin died. The Danes met to elect a new leader, but the Magyar king objected, saying that the son of Wodin was the next lawful ruler, and until his grandson came of age, he would rule as regent. This disagreement could not be resolved.

Banishment of Danes from Denmark in 2093 BC

In 2093 BC, the Danes decided to return to Denmark with their wives and children. Now came a shock that changed European history. A new Frisian Folk Mother met the fleet off the coast of Denmark and prohibited them from settling in her dominions because they had become contaminated by Magyar immorality.

The fleet coasted south with the intention of settling in the Mediterranean under the protection of Pharaoh. At Cadiz they stopped to buy provisions.

> Here they bought all kinds of stores, but **Tutia** the burgh-femme would not allow them to settle there. When they were ready they began to disagree. Teunis wished to sail through the straits [of Gibraltar] to the Middel Sea (Mediterranean), and enter the service of the rich king of Egiptaland [Pharaoh Pepi II Neferkare], as he had done before, but Inka said he had had enough of all those Finda's people. Inka thought

> that perchance some high-lying part of Atland (lands across the Atlantic) might remain as an island, where he and his people might live in peace.
>
> As the two brothers could not agree, Teunis planted a red flag on the shore, and Inka a blue flag. Every man could choose which he pleased, and to their astonishment the greater part of the Finnar and Magyarar followed Inka, who had objected to serve the kings of Finda's people. When they had counted the people and divided the ships accordingly, the fleet separated. We shall here of Teunis afterwards, but nothing more of Inka. OLB

Inka-Kylix-Neptune crossed the Atlantic and settled the immense fleet along the Mississippi River, where they grew barley, sunflowers, squash and gourds; hunted bison, fished with nets[7], and built cities.[8] From this base he established a trading empire to carry nodules of pure copper from Isle Royale in Lake Superior to the markets of Europe, with tin extracted from mines in Cornwall. Later his ships carried tin from Bolivia and gold from Columbia. To establish trading centers, Inka enlisted the help of his relatives. For example, his brother Teunis with his wife Demeter, sister of Zeus, founded trading centers at Tyre, Crete, Marseille, Canopus near Alexandria, Tunisia and Zeeland.

> Teunis built a warehouse at the mouth of the Flymar (Vlie river). Afterwards this place was called Almanland, and the market where they traded at Wyringga was called Toletmark. OLB

In many European cities, statues of Neptune still grace the central square such as in Gdansk, or surmount a church like that of Middelburg in Zeeland.

American supply base

Four hundred years later, ten to fifteen million people lived along the Mississippi River, called mound builders, the transport route for copper. Other tens of millions lived in Brazil along the Amazon River, the transport route for tin. A metropolis at Lake Titicaca supported tin miners in Bolivia. Along the east coast of North America, huge shell mounds mark the support network for north-bound ships.

Besides Staveren, another major shipyard was at Gdansk, which had access to oak from Poland, iron from Sweden and leather sails from Finland. Ships must also have been built in America, but the shipyards have not been found. Julius Caesar described these ships in Bello Gallico, Ch 13.

> For their ships were built and equipped after this manner. The keels were somewhat flatter than those of our ships, whereby they could more easily encounter the shallows and the ebbing of the tide: the prows were raised very high, and, in like manner the sterns were adapted to the force of the waves and storms. The ships were

[7] When Hernando De Soto explored the southern Mississippi, he found the Indians fishing with nets for catfish and pelefish (paddle fish), two abundant species. Father Anastasius Douay, a priest who traveled with La Salle in 1687, wrote that the rivers in the Illinois country were so full of all kinds of fish that members of the exploring expedition were able to take them with their hands without using baskets or nets. In 1765, Peter Pond, a fur trader, wrote, "We Put our Hoock and Lines into the Water and Leat them Ly all nite. In the Morning we Perseaved there was fish at the Hoocks and went to the Watter Eag and halld on our line. They Came Heavey. At Length we Hald one ashore that wade a Hundred and four Pounds, a Seacond that was One Hundred Wate, a third of Seventy five Pounds. The fish was what was Cald the Cat fish."

[8] Barley occurs at archaeological sites in Arkansas, Iowa, Illinois, Missouri, Oklahoma, Wisconsin North Carolina, New Mexico and Mexico. Little barley (Hordeum pussilum) has been dated even older, to 7300 BP at the Koster North site in central west Illinois, and at the Napoleon Hollow site beginning 6800 BP. Tyler Livingson, Another look at barley in the Book of Mormon, 2010, on the web.

built wholly of oak, and designed to endure any force and violence whatever; the benches which were made of planks a foot in breadth, were fastened by iron spikes of the thickness of a man's thumb; the anchors were secured fast by iron chains instead of cables, and for sails they used skins and thin dressed leather. These [were used] either through their want of canvas and their ignorance of its application, or for this reason, which is more probable, that they thought that such storms of the ocean, and such violent gales of wind could not be resisted by sails, nor ships of such great burden be conveniently enough managed by them. The encounter of our fleet with these ships' was of such a nature that our fleet excelled in speed alone, and the plying of the oars; other things, considering the nature of the place [and] the violence of the storms, were more suitable and better adapted on their side; for neither could our ships injure theirs with their beaks (so great was their strength), nor on account of their height was a weapon easily cast up to them; and for the same reason they were less readily locked in by rocks. To this was added, that whenever a storm began to rage and they ran before the wind, they both could weather the storm more easily and heave to securely in the shallows, and when left by the tide feared nothing from rocks and shelves: the risk of all which things was much to be dreaded by our ships. Tr. W. A. McDevitte and W. S. Bohn

Who lived at Yeavering Bell?

In addition to bearing children by Ouranos, Gaia had five children by **Pontos** (< *Po'neitos* 'Reindeer snowdrift'), one of whom **Eurybia** nearly matches **Yeavering**. Eurybia comes from *euri piia* meaning 'golden maiden', an attribute of her hair. She married the Titan **Krios** [< kari-os 'rock metal', i.e. copper], her half-brother by Gaia and Ouranos. The couple were sent to settle one of the four corners of Earth, after which Greek history loses direct contact with them. Their grandchildren were noted seafarers, including Nike. Thus the great cairn at Yeavering Bell may commemorate two people, the sea-nymph Eurybia, daughter of Gaia and Pontos, and her husband Krios, son of Gaia and Ouranos. The pair could have arrived with settlers around 2150 BC.

If Lindisfarne was their home port, then their markets were England, Scotland and possibly Norway. Trade products would have included copper, tin, bronze, bronze implements, amber, wine, olive oil, cotton cloth, dyes, spices, saddles, glass beads, ivory, feathers and other exotic goods. One method of payment would have been labor, which might account for the abrupt clearance of forests soon after 2100 BC.

Bell Beaker connection with early Greeks

The signature pottery of the Magyar and Frisian trade networks was a decorated, copper-colored **Bell Beaker**, which resembles a bell when turned upside down. These were used to drink mead or beer presumably upon conclusion of a trade in copper. This design originated in the copper mining region of **Galicia** and **Asturias** around 2900 BC, but remained fairly local until after 2150 BC, when in just two hundred years it spread across Europe. Asturian miners followed narrow veins into the mountain - difficult and tedious work, to quarry stone with just a maul and bone chisel, then process the rock into copper.

A millennia earlier, the Rio Tinto region of Andalusia in southern Spain had extensive copper and silver mines, which ended in 2345 BC.

Two millennia later, the mines of Galicia and Rio Tinto were the principal source of copper for Rome, which harnessed hydraulic power to crush rock, pump water out of the mines, and otherwise reduce labor.

From the Asturian mines, the river **Sil** flows southwest, separating Spain from Portugal. In Finnish, *silli* means 'herring'. The mouth of the Sil comprises a protected estuary, where copious amounts of eel grass grow that herring can stick eggs to. This region has a long oral tradition of fishermen voyaging back and forth to Ireland, which lies directly north; black-haired Irish in County Kerry are said to come from Portugal.

At the mouth of the Sil, near **Tiu**, were likely born Gaia, Ouranos and Cichol Grenchos. One of the people with Cichol Grenchos was named **Sliabh Emor**, whose name may come from *silli aapa aimo oro* meaning 'herring-backwater splendid-stallion', a near perfect description of this region, famed for horses.

Thus Inka and Teunis descend from copper miners and herring fishermen from Asturias, Galicia and Portugal, who traded copper and left Bell Beakers.

Oera Linda Boek describes the arrival at Zeeland of a trading fleet organized by **Teunis** in **Tyre** in partnership with priests of **Golar** from **Sidon** soon after 2090 BC. One of their most important trade items was copper weapons.

> Twelve ships were laden with wine, honey, tanned leather, and saddles and bridles mounted in gold, such as had never been seen before. - Their merchants exchanged their beautiful **copper weapons** and all sorts of jewels for our **silver** weapons and hides of wild beasts, which were abundant in our southern countries; but the Golar celebrated all sorts of vile and monstrous festivals, which the inhabitants of the coast promoted with their wanton women and **sweet poisonous wine**.

Dating Lindisfarne

Bell Beaker expansion occupies the Copper Age, a short period of 200 years, from 2150 to 1950 BC. Copper came from Bell Beaker copper mines in Asturias and Galicia in Spain, and tin from Cornwall under Frisian control. After 1950 BC, new sources copper displaced Bell Beaker copper. Thus Lindisfarne may have been founded around 2100 BC.

Inka landed in North America in 2093 or 2092 BC. The most likely date for the founding of Lindisfarne would be within a generation, perhaps around 2080 BC.

Its peak likely occurred just before October 24, 1535 BC, the Deucalion Flood, when a catastrophic tsunami flooded the Mississippi Valley and terminated Atlantic trade.[9]

[9] Orosius states that the Deucalion Flood occurred 810 years before the founding of Rome: 726+810-1 = 1535 BC.