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Lampworked borosilicate glass and blown soda glass.  
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## **Vitrified Memory: a Contemporary Archaeology of Glass Ships in Bottles**

Christopher McHugh

### **Introduction**

The Vessels of Memory project aims to raise awareness of an important, yet largely neglected, chapter in the socio-economic history of the North East. The story of glass ships in bottles in Sunderland is one of resilience in the face of redundancy, in which local innovation and ingenuity enabled highly skilled workers to adapt to a changing economy. However, it is also a lament over cut-throat competition, where companies pitted themselves against one another in a price war which resulted in outsourcing to China and, ultimately, to the collapse of the local industry. This decline has meant that these products have come to be regarded merely as frivolous mass-produced consumer kitsch. Their origins in the virtuoso items of folk art made by Pyrex workers in their lunch hour has been all but forgotten.

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For those involved, the practice is perhaps too familiar and too close to living memory to be seen as worthy of historical documentation. It is instructive that it has taken an outsider from the other side of the world to understand the value of this intangible cultural heritage. In seeking to anchor herself within the community, Ayako Tani has succeeded in reconstructing a fine-grained biographical archaeology of glass ships in bottles in Sunderland. Archaeology is an apt term because this narrative has largely been made by reference to material culture rather than to historical documents. With a paucity of documentary evidence, Tani's typological analysis and cataloguing of the numerous ships in bottles she has acquired from eBay, or recovered from charity shops, has been bolstered only by the oral reminiscences of former makers.

In addition to being the only record of this practice, this study makes a significant contribution to our understanding of a range of issues concerning the transference of tacit skills and the relationship between individual creativity and mass-production. It also provides an example of how style and form may evolve in a cyclical trajectory, originating in individual agency, developing as a cottage industry, and then becoming formalised through factory production. Here, precision skills developed over years of apprenticeship were channelled into making decorative heritage products.

In this sense, glass ships in bottles are at once objects of layered nostalgia and transparent embodiments of tacit knowledge and memory, recording their own construction from hot glass. The repurposing of the Hysil flask, described by Tani with mixed feelings, speaks of the pragmatism which characterised the ships in bottles boom in general. Although the provenance of such items may be erased in flame, they remain as palimpsests of memory, vitrified time capsules shaped by the hands and breath of workers like Brian Jones and Norman Veitch. Tani's own work takes this process one step further, keeping threatened industrial skills alive to create contemporary glass art.

### **Glass ships in bottles as folk art**

It is not unreasonable to trace the lineage of glass ships in bottles to the better-known tradition of making wooden ships in bottles, a practice which seems to have originated in Germany and Eastern Europe (Kenny 2014b, 72). A less familiar relative of this is the god-in-a-bottle, a craft which was prevalent in the north of England among communities working in construction or mining. These religious or talismanic bottles contain a range of wooden objects generally relating to the maker's profession, including bobbins or miniature wooden tools. It is likely that the considerable skill required to make these items was handed down from generation to generation (Kenny 2014b, 72). Just as these objects were made by craftspeople and contained depictions of trade tools, glass ships in bottles most likely began in the tradition of making friggers. With early models often incorporating glass scientific apparatus, they are both sculpture and exemplar of the maker's skill.

Anthropologist Tim Ingold (2013, 111) differentiates between 'articulate knowledge', which is often verbalised, and 'personal knowledge', which comes about through a 'correspondence' between sentient awareness and material. This difference is well illustrated by Christopher Evans' (2012) discussion of how the Gurung people of Nepal (and London) use miniaturisation and models to explain how tools and vernacular architecture function in preference to verbal expressions or sketches. In both the god-in-a-bottle and the glass ship in bottle, we can see an attempt to preserve skills and techniques in a material form. By seeking to acquire this tacit knowledge with a view to dissemination, Tani is working in the spirit of these traditions, as an apprentice-cum-ethnographer.

These encapsulated objects all have in common their ability to evoke wonder through their 'technical virtuosity', which places the viewer in an 'asymmetrical relationship' with the artwork (Gell, 2009, 218), where we are forced to marvel at how they have been made. While the procedure for raising the masts on traditional wooden ships in bottles is relatively well-known, the 'transubstantiation' of this craft into hot glass in a hermetically sealed bottle further confounds and fascinates us (Gell, 2009, 219). 'How do you get the ship in the bottle?', is a common question fielded by Brian and Norman from visitors at the National Glass Centre.

### **From folk art to mass-production**

Folk art is often associated with the working classes and is generally 'rooted in the idea of community, in the sense of being produced for and often by a group', thereby

'enshrining group identity' (Kenny, 2014a, 127–129). The techniques employed may emerge from a 'very unique skill set rooted in vocational knowledge that influences a particular visual language'; and the materials used may also be the 'bi-product of local industry' (McMillan, 2014, 13–14). Indeed, it is clear that the aesthetics of glass ships in bottles owes much to expediency and the scientific glass training of their makers. Sails were fashioned out of split glass tubes and one of Harry Phipps' motivations for starting his Mayflower empire was to use up excess glass stock.

Although the production of glass ships in bottles in Sunderland may have started as a folk activity with an ad hoc approach to design, it gradually developed into a cottage industry, before eventually becoming subsumed into factory-based mass-production. With this came an increasing standardisation and rationalization as exemplified by the later pieces made by Mayflower using Heath Robinson-esque machines invented by the ingenious Phipps. However, even with this level of automation, glass ships in bottles remained largely hand-made products. In earlier examples made by Durham Glass, for example, the increasing quest for conformity 'did not render the individual makers entirely invisible; rather, they distinguished themselves by their ability to fashion and display signs of individual ornamentation within the system' (Kenny, 2014a, 131). Indeed, through her interviews, Tani has discovered that former workers can often still identify the maker of particular pieces by the way in which they have finished certain design elements, notably the mast-top flags.

While the god-in-a-bottle may have acted as a mnemonic device to pass on skills in a non-verbal manner, we can see a similar sentiment in the schematic drawings used by Heritage Glass Sculptures to standardise production. Crudely drawn onto pieces of cardboard, these things have an intriguing materiality in their own right. The diagrams codify the production of certain commonly made vessels like the Cutty Sark or the Mary Rose, showing the position and number of masts, sails and other components. Brian and Norman would have used these before committing the individual designs to memory and they often show single marks from where the hot glass ship has been measured against the drawing. This training no-doubt paid dividends when Brian and Norman were faced with the challenge of extrapolating from the two dimensional drawings of contemporary artists like Luke Jerram, for example. Similar mnemonic devices continue to be used in the Mayflower factory in China, although these are of a more ephemeral nature than the cardboard records, often simply being drawn into the sooty factory wall with a finger.

Discussing the relative agency of the maker and commissioner, anthropologist Alfred Gell (1998, 221) describes a china dinner set, typical of that made by Spode or Wedgwood, as a series of objects, each with their own 'micro-histories', which come together to form a 'distributed object' manifesting the 'intentional actions' of the factory's management and design team. If, as Tim Ingold (2000, 372) argues, even such mass-produced objects can each be seen as 'originals' rather than 'replicas', often displaying variation due to the 'dynamics of making', it is possible to discern in glass ships in bottles something of the agency of not only the factory owners who commissioned them, but also of the workers, whose idiosyncratic lampworking makes each piece unique. In this way, it is perhaps still valid to describe this tradition as a form of folk art, wedded to community and place.

### **Ghosts of place**

Brian Jones and Norman Veitch of Wearside Glass Sculptures have jokingly dubbed themselves the last ship builders on the River Wear. Indeed, there is a strong sense of the absent presence of the shipbuilding industry in Sunderland. Walking along the banks of the Wear towards the National Glass Centre, one can imagine the hubbub of the long-gone shipyards and the voices of their workers. Sociologist Michael Bell (1997, 813) has identified a form of haunting which refers to memories associated with specific topographical locales or objects. He argues that we 'constitute a place in large measure by the ghosts we sense inhabit and possess it'. These 'ghosts of place' are defined as 'the sense of the presence of those who are not physically there' (813) and confer a degree of 'social aliveness to a place' (815). Such ghosts are not confined to individual or collective memories and may link the past, present and future through 'temporal transcendence' (816).

Although ships in bottles were made in other places in the UK without a shipbuilding heritage, this notion of haunting is useful when considering the phenomenon in Sunderland. It is possible to construe the lost shipbuilding industry as Sunderland's *genius loci* – its defining and protective spirit. It could be argued that this sense of nostalgia became reified in a material culture where 'petrified, frozen or obsolete components of culture' (Adorno 1963, 237), were materialised as ghostly glass ships. Bruce Stephenson, a ship fitter at Austin and Pickersgill, and a friend of Brian Jones, tells of how he sold some of Brian's ships in bottles at the shipyard in the early 1980s. There is a certain irony that while shipbuilding was approaching its final throes, the glass ship industry began to flourish and it was the very shipyard workers who became customers. Tani's plasma reimagining of *The Flying Dutchman* poignantly addresses the eventual double demise of shipbuilding on the Wear, speaking both of nostalgia and loss, while pointing towards a *St Elmo's fire* of regeneration.

Nevertheless, it is curious that the original subjects of these miniaturised glass simulacra were largely not made on the Wear, mostly being iconic sailing ships from the Age of Discovery. While they may appeal to a sentimental longing for the past, they were not made as memorials; rather they were attempts at establishing a going concern. Although made in Sunderland, these pieces cannot be described as true souvenirs of the city as they do not function as metonymic traces of the place. Instead, they represent a general nostalgia for the halcyon days of empire and exploration. There is also a pragmatism to these products, which were often custom-made for the export market. For example, replicas of the *Nippon Maru*, a famous Japanese training ship, were sold by Mayflower to Japanese retailers, while miniatures of the *Shabab Oman*, the Sultan of Oman's barquentine, were commissioned from Heritage Glass Sculptures for presentation to his employees.

### **Social archaeology**

Archaeologist Bjornar Olsen (2010, 121) argues that historical objects constitute 'the past still present', or 'present-at-hand heirlooms' (115), which, when displayed, establish a series of 'references', 'creating links between things, and between people and things', whilst also facilitating 'a historical linking (or "gathering") of different historical horizons'. Tani's collection of glass ships in bottles and related scientific glassware chronologically spans several decades of recent history, although their

borosilicate construction is generally unsullied by the patina of time. They are of the past, but exist in the present, and will last into the future. Her appropriation and reconfiguration of these items imbues them with new meanings and contemporary resonances, while paying homage to those who made and used them.

This approach is not unlike that of Jeremy Deller in *All That Is Solid Melts Into Air*, his investigation into the legacy of the Industrial Revolution. Here, archival materials and historical artefacts were presented together as a contemporary installation, establishing a strong contextual relationship between the past and present. Just as Deller communicated a sense of lineage and continuity through the display of the family trees of celebrities like Bryan Ferry and Shaun Ryder, who could trace their roots to manual labour, Tani has created her own genealogy of ships in bottles production based on interviews with former makers. Like Deller, by acquiring and curating her own collection of objects and making new artworks in response, she can be likened to 'a social archaeologist, uncovering affinities and connections across historical epochs and finding new meanings in familiar images and stories' (Malbert 2013, 73). Much like Deller's work, this very process of collection and curation is 'in essence a contemporary project – and a work of art in its own right' (73).

Philosopher Walter Benjamin famously used to haunt the flea markets of Paris, searching for snow globes and other antiquated souvenirs. In this 'flotsam and jetsam', he saw 'a fossilized past full of experiential knowledge just waiting to re-emerge from history' (Freeman 2016, 125). There is an equivalence in Tani's scouring of eBay and charity shops to collect glass ships in bottles, rescuing them from the doldrums and reuniting them with their port of origin. These items are vessels of memory on several levels. While they may be relatively generic products, they have circulated commercially and each has a unique biography of usage, which can only be imagined. While they may have initially 'travelled as souvenirs in luggage' (Freeman 2016, 117), thanks to Tani, many of them have now arrived back to Sunderland through the post, 'bubble-wrapped and resting' (117). The solidified hot glass also records their own construction in 'spatial traces' (Tani, 2014, 91) and testifies to the skill and knowledge of their maker. Glass ships in bottles do not so much represent the past as embody it.

#### **Conclusion: glass ships in bottles as objects to think with**

A fundamental paradox of the glass ship in bottle is that, although the bottle suggests tactility, access is denied to its contents. Like the snow globes and other still-lives which fascinated Benjamin, the ship in bottle is simultaneously 'distanced and close, an object that marks the cusp between art and non-art' (Leslie 2009, 217). Susan Stewart (1993, 54) argues that the miniature provides a 'constant daydream', which encourages the creation of an open-ended imaginative narrative or performance. Writing about a resurgence in the creation of snow globes by contemporary artists, sociologist Lindsey Freeman (2016, 122) similarly suggests that these glass microcosms act as 'liminal landscapes' which can 'propel us into worlds we might not have thought of' and 'inspire our imaginations, transporting us to alternative temporalities and geographies'. Here, a snow globe is a 'tool' which allows the viewer to 'enter an altered state, where dreams of the future and memories of the past sit alongside present awareness' (124). In works like *Century Timer*, Tani invokes the aesthetics of the snow globe, capturing swirling blizzards of glass frit in a matrix. This

hourglass suggests the passage of time, while seeming to warn against the entropy of embodied memory.

Although designed more for the mantelpiece than for shaking, by their very nature, glass ships in bottles are even more open to interpretation than snow globes, offering unlimited potential as objects to think with. These glass reconstructions do not attempt to be exact replicas, instead relying on simplification and exaggeration to capture the essence of the original. This 'reduction' means that space is left for 'play of the imagination and free association' (Gibbons 2007, 32–34). Gazing at a glass representation of the Mayflower, our minds might empathetically wander to the Pilgrim Fathers' first frigid winter in the New World, or even imagine ourselves at the helm of one of the Tall Ships sailing towards Sunderland this summer. Equally, we may consider the remarkable adventure those Pyrex pioneers embarked upon when they decided to go it alone – a voyage across time and space, linking Sunderland to the rest of the world. It is only appropriate that Tani, herself a traveller from the volcanoes and concrete canyons of Japan, should be the one to celebrate and explore this episode in our shared history.

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