

My current research explores the history of novelty lampworking in the UK, aiming to show how this often overlooked art form provides a fruitful and largely unexplored area for design history and material culture studies. In particular, my project focuses on the production of glass ships in bottles in Sunderland from the 1970s to the present. Based on a series of interviews with veteran scientific glass blowers, this essay discusses how this practice emerged, became commercialised, and ultimately evolved.

James A. Jobling Ltd, the preeminent Pyrex factory in Sunderland, started scientific glassblowing in 1932. Production grew during and after World War II, where there was a demand for radar tubes, laboratory apparatus and various components to supply other industries. Each colliery in the region had a small on site laboratory to analyse gas, and consequently there was much work making and repairing glass equipment. These scientific glassblowers generally made glass to blueprints, where precision, rather than creative expression, was of primary importance. Normally they did not have time to spare for making anything other than assigned laboratory apparatus because they worked on a bonus system. However, some of them had small studios at home and it seems that novelty lampworking began gradually in individuals' garages. In an exceptional case of an ornamental piece being made at work, Jobling employee Andy Thompson was commissioned to make a George and the Dragon trophy for President Jimmy Carter, who visited the factory in 1977. From around 1972, the Laboratory Division at James A. Jobling started downsizing and Brian Jones, who started his apprenticeship in 1970, was part of the final generation. The Division finally closed in 1982, resulting in a number of redundancies. There is some indication that these workers were given the opportunity to transfer to Jobling subsidiary Quickfit and Quartz Ltd in Stone, Staffordshire. However, most were unwilling to relocate, preferring to seek new opportunities to apply their skills in Sunderland.

Around 1980, Domingo Grande, the director of Espagna International in Hexham, Northumberland, contacted Keith Hartley of Scientific Equipment Company in Sunderland. Keith had previously taught at Monkwearmouth College, Sunderland, where the James A. Jobling apprentices went for a day release course. As a result, he was familiar with the glassblowers there. Domingo asked Keith to make glass ships in bottles for his company, and Keith referred this project to Fred Price, a former apprentice, who had just founded Durham Glass in 1979, after being made redundant from James A. Jobling. Domingo paid Durham Glass £10,000 up front, covering the cost of moving facilities to large premises and tooling up for the production of ships in bottles. Skilled scientific glassblowers from James A. Jobling joined Durham Glass one after another. There is a recollection that their weekly wages doubled when they started to make ships in bottles. The decline in the scientific glass industry was met by a ships in bottles boom. Following Durham Glass, many companies were established in Sunderland and the neighbouring areas by former scientific glassblowers. Companies like Abbey, Heritage, Sky Lamp, D. Jobling, Mayflower and Fantasy

produced glass ships in bottles almost exclusively throughout the 1980s. Mayflower introduced a mass-production system and sold numerous ships in bottles internationally, receiving the Queen's Export Award in 1992 and 1993. Other winners in the same year included the fashion brand Barbour. Glass ships in bottles had gone from a cottage industry to a highly viable commercial enterprise.

The development of ships in bottles in other locations in England demonstrates that cultural propagation is not necessarily contiguous, but may happen in multiple locations at the same time. At least two companies in Lichfield and Sudbury, both with a background in scientific glassblowing, were making them earlier than Durham Glass. The oldest identified example was made in Lichfield in 1974. I am still trying to ascertain where glass ships in bottles were first made. I have found similar products made in America, Japan, Spain and China, but considering the small number of examples, the practice seems to have originated in England in the 1970s. This practice flourished in Sunderland because the cultural seed was sown in fertile soil at the right time. Aspects of the design development, simplification for efficiency, and the way workers communicated designs are fascinating topics for design research. Also, how those workers still remember the designs is surely of ethnological interest. People who worked for Durham Glass can identify examples of their work with unfailing accuracy. A Cutty Sark Brian Jones made from memory last week is very much like the Cutty Sark he and his colleagues made at Durham Glass around 1980. Former workers say that they can guess the particular maker by the shape of the flags.

The success of Mayflower, however, caused severe price slashing and other companies in Sunderland were pushed out of the market. Mayflower's factory in East Boldon, South Tyneside, was thriving until 1995, employing about a hundred people. Later, production was outsourced to China, and the company finally went into administration earlier this year.

Brian Jones and his colleague Norman Veitch have kept lampworking alive in Sunderland through these changing times, each receiving an MBE in 2017 for their contribution to glassblowing. They were both originally from James A. Jobling and made ships in bottles at Durham Glass. After all the other factories closed in the shadow of Mayflower, they set up Wearside Glass Sculptures in 1996, which is now the oldest tenant of the National Glass Centre, part of the University of Sunderland. While they became internationally renowned for making Luke Jerram's *Glass Microbiology* series, there was a time when making glass ships in bottles kept them in the lampworking business. The production of these novelties bridged industrial glass production and contemporary glass art, helping to maintain tacit skills and knowledge. Through my work, I hope to pay homage to this important history, while also attempting to acquire and transfer these skills for the future.

Dr Ayako Tani is currently an Artist in Residence at the National Glass Centre, University of Sunderland. Her exhibition 'Vessels of Memory: Glass Ships in Bottles' will be held at the

National Glass Centre in 2018 to coincide with the arrival of the Tall Ships Races in Sunderland. <https://www.facebook.com/VesselsofMemory/>

(2017)