

Vessels of Memory:
Glass Ships in Bottles
Ayako Tani

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*Cover image: City of Adelaide (2018) Ayako Tani
Lampworked borosilicate glass and blown soda glass.
Photography by Jo Howell*



Contents

Foreword	4	Time Lines of Ships in Bottles Industry	22
Acknowledgements	5	The Tani Collection	26
Introduction	6	Gathering Pieces of the Puzzle	26
A Brief History of Glass Ships in Bottles	8	Interviews with the Makers	31
Before the 1960s	8	Artwork by Ayako Tani	49
Scientific Glassblowers and Sculpture	8	Vessels of Memory	49
The Swan Boom	9	Hysil Flasks and Norman's Retirement	49
Propagation in Sunderland	10	Home	50
Durham Glass	12	Vitrified Nostalgia	51
Development and Divergence	14	Vitrified Memory: A Contemporary	61
Mayflower Glass	16	Archaeology of Glass Ships in Bottles	
Mayflower in China	18	by Christopher McHugh	
Other Glass Ships in Bottles Makers	20	Afterword: Guided by the Wind	67
in the U.K. and Abroad		Biography	68

Foreword

Julia Stephenson

Lampwork is a technique that allows the glassmaker to achieve great precision, delicacy and detail. The quality and range of lampwork fits perfectly with Dr Ayako Tani's artistic approach. In her work, Ayako uses fluid lines of glass to create three-dimensional drawings exploring subject matter ranging from calligraphy to the flight pattern of birds. In developing her mastery of lampworking, Ayako has worked closely with Brian Jones MBE and Norman Veitch MBE who have had a studio space for many years at National Glass Centre.

Brian and Norman began their careers in Sunderland as apprentices using lampwork to create laboratory apparatus under the trademark of PYREX. They have spent their working life refining and sharing their skills with artists studying at National Glass Centre. These wonderful gentlemen are two of a small group of people who developed their skills in industry and then, as large-scale manufacture of glass in Sunderland declined, some of those workers with industrial training began to make ornamental work including glass ship in bottles.

With a fresh perspective gained through her background as an artist, and as someone not 'born and bred' in Sunderland, Ayako Tani has recognised the importance of the glass ships in bottles and their makers. As Dr Christopher McHugh says in his essay for this catalogue, Ayako's 'Vessels of Memory' project aims to raise awareness of this important, yet largely neglected, chapter in the socio-economic history of the North East.

Ayako has researched this area of Sunderland's glass making past establishing a unique and valuable record. Through Vessels of Memory she has created a bridge between those who gained their skills in glassmaking through Sunderland's industry and those who are taking glassmaking forward through visual art. In doing so, she has developed new work, advancing both her own practice and the concept of glass ships in bottles.

Julia Stephenson, Head of Arts, National Glass Centre, June 2018

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Dr Christopher McHugh shares a strong interest in this research and has contributed an insightful essay to this publication.

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Finally, I gratefully acknowledge Prof Mike Collier and Dr Manny Ling, for their generous support in helping me to shape and further develop this project. I hope that I can continue to unravel more history of ships in bottles and inspire people with my research and glasswork.

Ayako Tani, July 2018

Introduction

1. Lampworking is a technique to form glass by using the heat of a gas burner.

In 2014, I started blowing glass with Norman Veitch and Brian Jones of Wearside Glass Sculptures at the National Glass Centre. Initially, it was a recreational exercise after the grind of PhD thesis writing, but soon I became completely captivated by their nostalgic reminiscences about how they had worked as lampworkers¹ in Sunderland. Every weekend, I was excited to work in their studio, meet customers and listen to their stories of the region. This project about glass ships in bottles was born out of such encounters with Norman, Brian and many visitors to the studio.

Both Norman and Brian originally worked as scientific glassblowers at the Laboratory Division of James A. Jobling Ltd. Jobling was a large company in Sunderland producing borosilicate glass products ranging from kitchenware to industrial equipment, and local people called the company 'Pyrex' after the brand name of the heat-resistant glass that Corning USA licensed to Jobling. In 1996, they jointly established Wearside Glass Sculptures, which is now the oldest tenant of the National Glass Centre. They have helped many artists and designers to realise their ideas in glass and entertained countless visitors with their demonstrations. In 2017, they were both awarded MBEs for their contributions to lampworking.

Norman and Brian used to describe themselves as 'the last shipbuilders on the River Wear'. All of the several hundreds of shipyards that had been registered in Sunderland closed years ago, and many riverside pubs have been turned into residential flats. Indeed, the National Glass Centre was built on the site of the closed North Sands Shipyard. Norman and Brian occasionally made glass ships to order in their studio overlooking the Wear, and those glass ships embodied the spirit of the river and the city for me.

At first, I thought that ships in bottles were just one product among the myriad commissions they make. Although Sunderland is renowned for shipbuilding and the glass industry, it is a little-known fact, even among local people, that Sunderland was once the capital of the manufacture of glass ships in bottles. Glass ships made in Sunderland were exported all over the world. It was a highly viable commercial enterprise between the late 1970s and the early 2000s, and it engaged many redundant lampworkers from Pyrex. "After leaving Pyrex, we did not make anything else but ships in bottles", as Brian described. Had it not been for ships in bottles, these skilled craftsmen might have relocated or stopped working in the lampworking business. If so, I could not have learnt from them today. The skills may have been lost and many artworks might not have been realised. The more I found out about the history of glass ships in bottles, the more I felt a sense of affinity, indeed gratitude to this product. I became determined to record and preserve this undocumented local history, as well as attempt to keep alive the associated skills.

As a practice-based researcher specialising in the lampworking technique, I took it as my vocation to archive the history of the production of glass ships in bottles and pass down the making skills for the future. With the dedicated support of Norman, Brian and their friends and colleagues, I have recorded many stories from former makers, collected antique items and acquired the making skills myself. I also developed a body of artwork inspired by the history and its associated techniques. This book is the culmination of my research and studio practice about ships in bottles. Perhaps, as is the way of the world, the best speeches and demonstrations always happened off the camera. This book is at once a tribute to those I worked with and an afterglow of those ephemeral and precious moments in my life.

A Brief History of Glass Ships in Bottles



Fig. 1 Spun-glass ship in a bottle (year unknown) Unknown maker.

Before the 1960s

Firstly, it must be stated that this book is about 'glass ships' in bottles. The term, ships in bottles, often refers to the wood and parchment ships sealed in whisky bottles, a sailor's craft from centuries ago. Glass ships in bottles are obviously influenced by this tradition of model ships in bottles. The bottle protects the delicate ship inside, and they are both 'impossible bottles' that provoke wonder about how the ship was put inside. Another traditional artefact which probably influenced glass ships in bottles is the 'spun glass ship'. The spun glass technique involves controlling drooping threads of hot glass, like a spider weaving a web, in order to make rows of small loops into a net-like structure. It is typically seen in the making of animal figurines, doll house miniatures and ships. The example in Fig. 1 shows the link between this spun glass craft and ships in bottles. In this piece, a laboratory-grade joint cone is used for the stopper, which indicates that the maker was probably a scientific glassblower.

By the 1960s, the techniques and the basic design of glass ships in bottles had been established. Sails were invariably made of tubes sliced into small sections, so that the curved surface of the original tube lent itself to the depiction of billowed sails. It was a clever innovation to make sails in this way, because not only did the shape match the design but unwanted off-cuts could also be consumed efficiently. Larger diameter tubes were used to make the bottles, thick rods became the ship's body and thinner rods formed the masts. Regardless of time and maker, glass ships in bottles consist of these stylistic features even today.

Scientific Glassblowers and Sculpture

Scientific glassblowers are artisans who specialise in blowing and fabricating laboratory glass apparatus from glass tubes. The technique of manipulating glass with a gas burner is generally called lampworking (i.e. flameworking), but what distinguishes scientific glassblowers is their technical accuracy and their skill in working with tubing. In contrast, sculptural lampworkers tend to use solid rods more often. Scientific glassblowers generally make glass to blueprints, where precision, rather than creative expression, is of primary importance.

James A. Jobling Ltd. started scientific glassblowing in Sunderland in 1932 (Fairclough, 2008?, 68). 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.



Fig. 2 Brian Jones (left) Andy Thompson (centre) and Dean Jobling (right) with the St. George and Dragon Trophy (made by Andy Thompson), The trophy was made for the US President Jimmy Carter in 1977 (image courtesy of the Sunderland Echo).

At the Laboratory Division of Jobling, the scientific glassblowers were trained to work efficiently. Each job was timed, and they earned a bonus if they completed it faster. Therefore, they did not have much time to spare for making anything other than assigned laboratory apparatus. However, some of them liked to experiment creatively with glass during their lunch breaks. Andy Thompson (page 31) was one of those who developed his sculptural skills alongside the scientific job. Demonstrating a talent for design and sculpture, he was eventually assigned to make novelties as a part of his job. Typical items became presents for the workers' families, including glass keys for eighteenth birthdays and the like, and figurines presented by Jobling as corporate gifts. In the end, Andy spent half of his time at Jobling on sculptural projects. He was commissioned to make a Sunderland Coat of Arms for the Sunderland Museum & Winter Gardens. He also made a George and the Dragon trophy (Fig. 2) for US President Jimmy Carter, who visited the factory in 1977.

In this way, scientific glassblowing is often an entrance into artistic lampworking. Scientific glassblowers have a huge technical advantage when they attempt to realise any idea in glass. Later, when the idea of ships in bottles came to Sunderland, scientific glassblowers at Jobling were able to adopt it very quickly thanks to their technical excellence fostered through their scientific work.

The Swan Boom

This investigation into the history of glass ships in bottles unexpectedly discovered that there was a smaller boom of another lampworked novelty product prior to the ships in bottles – that of glass swans. Keith Hartley (page 30), then based at Scientific Equipment Company, sold thousands of glass swans to the giftware market. The swan (Fig. 3) was made of simple clear tubing, with the body blown and the neck drawn out elegantly. They were filled with coloured water and a plastic flower was placed in the small hole on the top. The swan was finally positioned on a mirror base. Keith's studio produced about a thousand swans a week on top of their usual scientific work, and he had two workers employed to blow swans full time.

Page 10 - 29

Interviews with the Makers

**videos are available from <http://www.vesselsofmemory.com>*

Keith Hartley



Scientific glassblower, who used to teach James A. Jobling apprentices at Monkwearmouth College. He introduced Espagna International (later Hadrian Crafts) to Durham Glass and served as the catalyst of the glass ships in bottles boom in Sunderland.

How did you become a lampworker?

Directly after the war, I was 15 years old. There was a demand for laboratory glassblowers. They needed apprentices quickly because the people trained before the war were becoming old by that time. I went to work for Northern Glass and Instruments along the River Wear in the south dock.

The National Coal Board used to have all of their own labs in different collieries to analyse gas on site. All of these places had gas analysis equipment which was all glassware. I was doing repair work and making new equipment.

You triggered the ships in bottles boom in Sunderland?

In 1979, while I was at the Scientific Equipment Company, Domingo Grande came to me from Hadrian Crafts in Hexham. We had too many other jobs to do, that we were already set up for. So, I took him round to Durham Glass. Next thing, they were up and running.

But, I wouldn't take credit for that because I think Domingo would, no doubt, have found someone himself. There were many glassblowing shops. Any one of them would have been capable because they were all trained at Jobling.

At that time, Jobling was less and less profitable and eventually closed the lab apparatus department down all together. The ones who did not want to go to live in the Midlands stayed in Sunderland, and it just coincided with the ship in bottle boom. There must have been five or six little workshops around Sunderland making nothing else but ships in bottles.

When did you first know about the glass ships in bottles?

I first saw glass ships in bottles in Lymington two years prior to being approached by Hadrian Crafts. They were all 100mm bottles and quite elaborate. They were not made for the mass market. They were quite expensive as well, £120, which was a lot of money at that time.

Page 31 - 48

Artwork by Ayako Tani



Fig. 1 Memory Pot 1 (2008) Ayako Tani
Lampworked borosilicate glass.

Vessels of Memory

The first body of work I exhibited as a student was the Memory Pot series (Fig. 1). These works were inspired by my grandmother's knitting and the lines of wool yarn. I drew stories of my childhood with clear threads of glass, and I fabricated them into a basket and pots, suggesting the virtual storage of my memory.

Ten years have passed, and personal recollection is still at the centre of my creative interest. Not everyone lives a legendary life that is documented throughout. The majority of us just try to live each day as it comes. The unceasing toil of ordinary people, in the end, builds history. For me, this process resembles the way that the most intricate fabric is also made of rows of simple threads. Everyone weaves a unique story of life, embracing various warps and wefts of memory. Relationships with other people add new colour threads to my weaving and make it richer and more diverse. Meeting people and listening to their stories is like adding fine threads of gold to my memory storage basket.

Over the course of this ships in bottles project, I have interviewed eighteen people, and I have also exchanged thoughts with numerous visitors to the National Glass Centre. So many people in the region had some experience related to making, selling or buying ships in bottles. In addition to the stories recorded in this book, larger collective memories of the community await to be uncovered by further research.

The Vessels of Memory project serves to remember the local history of the glass ships in bottles boom as well as addressing the wider community sentiment for shipbuilding. Last but not least, it is an embodiment of my personal recollections of meeting all of those people and rediscovering a shared history together.

Hysil Flasks and Norman's Retirement

In late November 2016, a visitor donated a collection of old laboratory flasks to Wearside Glass Sculptures. In the dusty cardboard box, was a selection of Hysil flasks, the borosilicate glassware produced in Sunderland in the 1960s¹. Knowing me as a local history enthusiast, Norman and Brian let me have them. "Except the largest one, we'll keep it for a virus", Brian qualified, pointing to a six-litre round-bottomed flask. The 'virus' referred to Luke Jerram's Glass Microbiology series, which is fabricated by Wearside Glass Sculptures. By a curious coincidence, Brian had just heard from Luke that the next commission might be three times bigger in size than their usual viruses, and he thought that the large Hysil flask would be suitable to make into the sculpture.

1. 'Hysil' was a brand name originally used by Chance Brothers and Co. in Smethwick, West Midlands. In the 1960s, Hysil glassware was produced by James A. Jobling in Sunderland.

Page 50 - 60

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.

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.

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Page 62 - 68