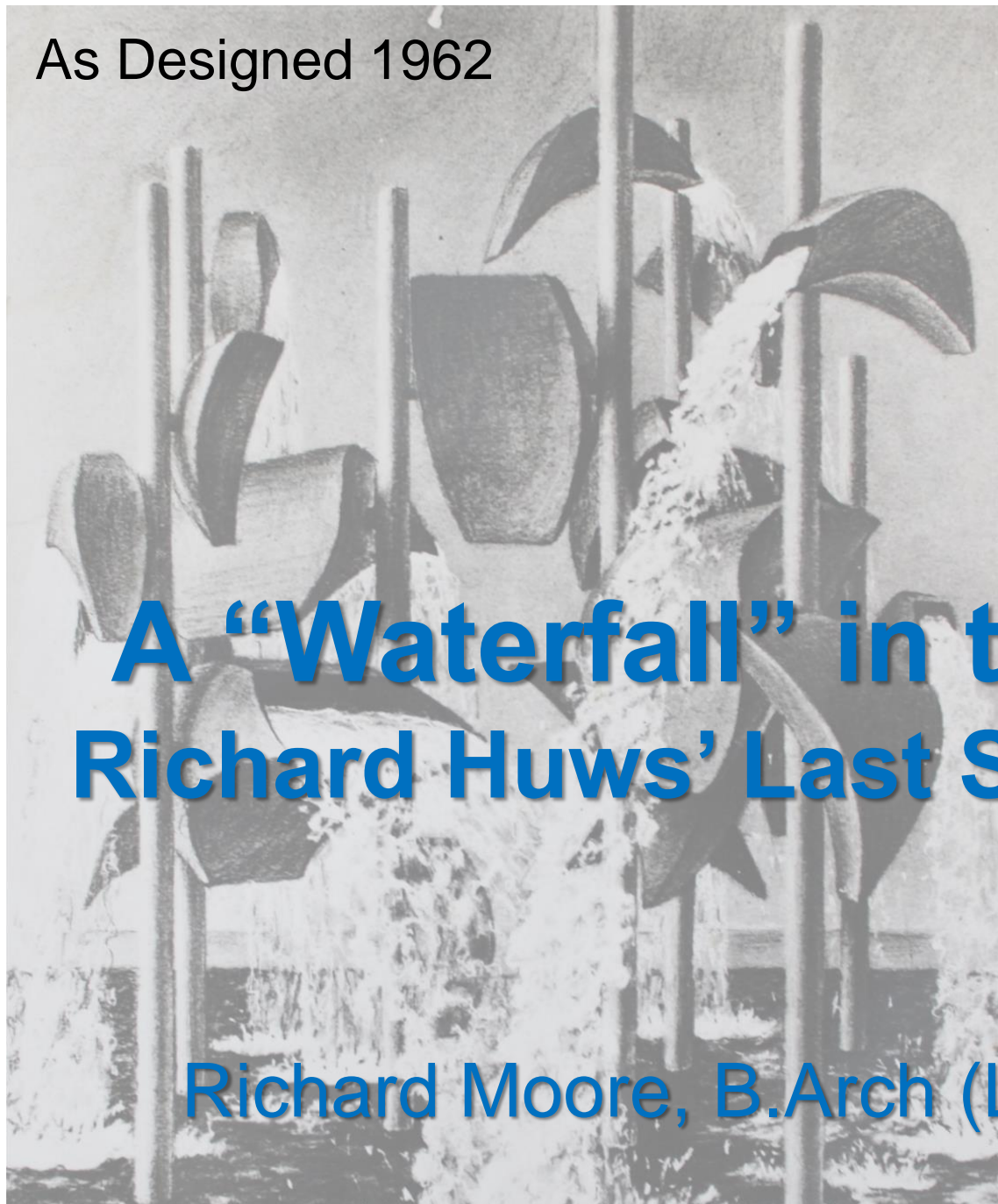


As Designed 1962

As Opened 1967

**A “Waterfall” in the City Centre  
Richard Huws’ Last Surviving Fountain**

**Richard Moore, B.Arch (L’pool), Ph.D., Dip.T.P**



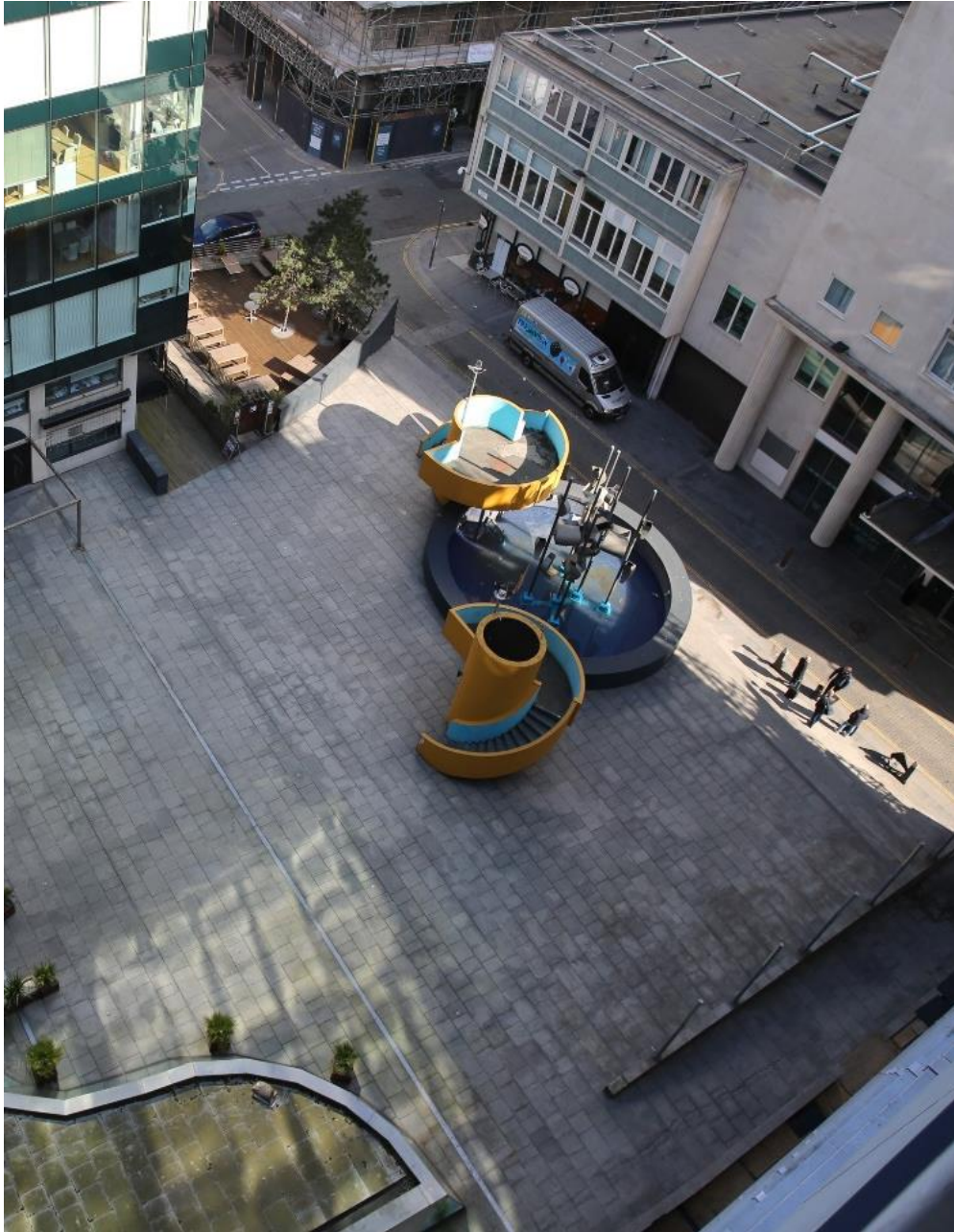
# How I became involved



National Library of Wales, Aberystwyth  
Holders of the “*Richard Huws Papers*”

**Much of talk based on information therein**

- Autumn 2018 was reminiscing with university friends about being taught by Richard Huws at the LSA in the 60s when he was designing his Liverpool fountain.
- Suggested that rather than taking our reminiscences to the grave, we should give them a positive outcome by getting his fountain listed.
- So to provide grounds for listing, began researching the history of the fountain in:
  - The National Library of Wales
  - Liverpool Record Office & elsewhere
- Submitted listing application in New Year, after hearing fountain was under threat.
- Now awaiting the listing decision.



# The Contents of the Talk

1. A short biography of Richard Huws
2. Description of his “prototype” fountain for 1951 Festival of Britain
3. The MCS’s commissioning of the Piazza Fountain, the design & search for a site
4. The site’s suitability & design of complex
5. Its fabrication, completion and opening
6. Richard Huws’ other fountain commissions
7. History of fountain after its 1967 opening
8. The design and action of the hoppers
9. Short video of the piazza fountain in action

# Richard Huws, 1902–1980: Education/Training



Anglesey / Ynys Mon – 1946 Map

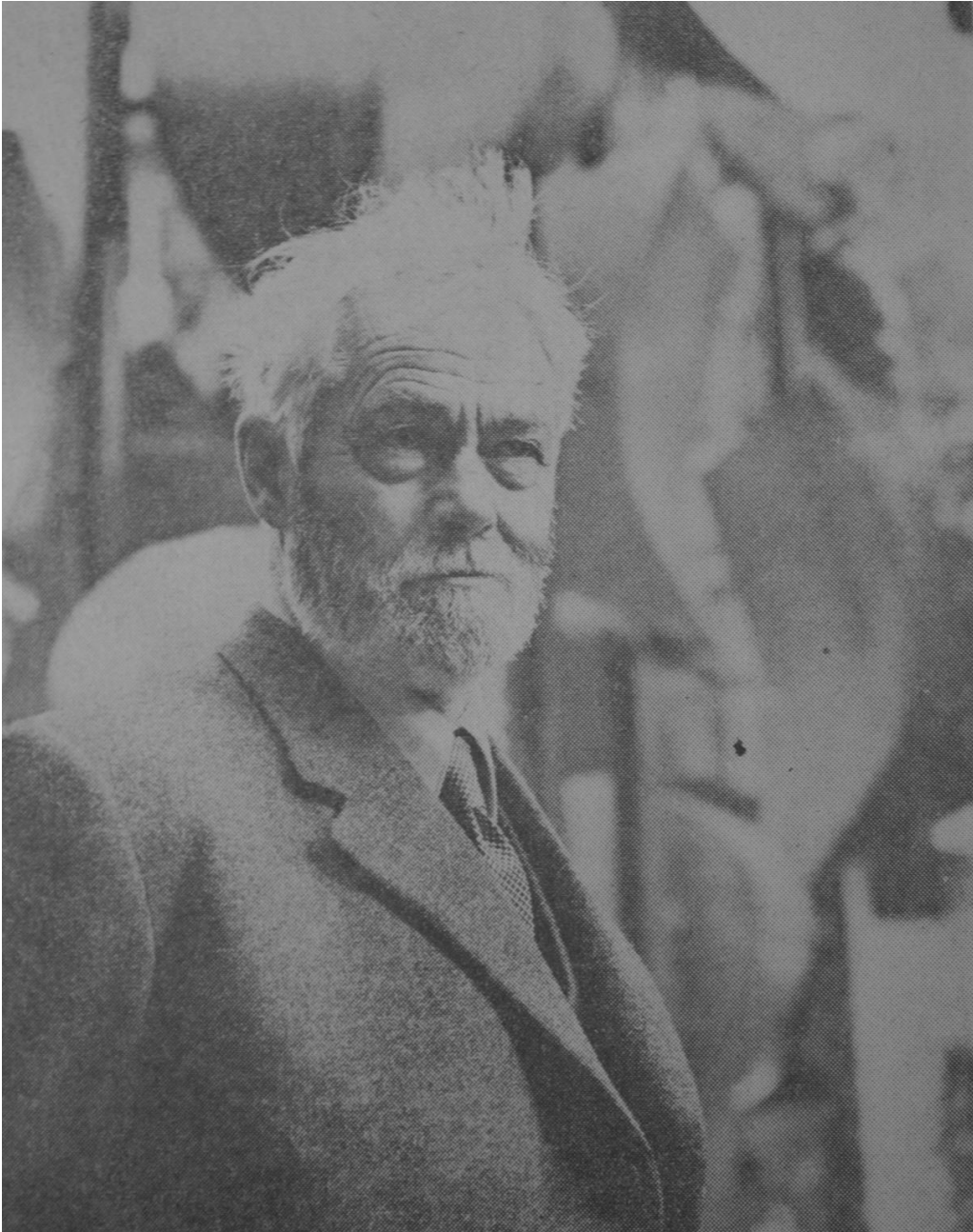
- **1902, June 10:** Born Richard Hughes at Penysarn, Anglesey, where father was the headmaster of local school
- **1910s:** Moved with family to Llanggoed, where he attended nearby Beaumaris Grammar School
- **1920:** Started as an apprentice at Cammell Laird, Birkenhead
- **1922:** Won scholarship to study naval architecture at Liverpool University
- **1925:** After a short return to Cammell Laird, attended Liverpool College of Art

# Richard Huws 1902 – 1980: Pre-war Career



**Sculpture Studio at the  
Kunstgewerbeschule, Vienna, c.1930**

- **1927:** Enrolled to study sculpture at ex-Bauhaus staffed Kunstgewerbeschule (School of Applied Arts) in Vienna
- **1930:** Returned to London, changed name to Huws and married Edrica Tyrwhitt, an RCA trained artist, later famous for her 'patchwork pictures'
- **1933:** became part of the 'Bloomsbury Welsh' group, which included Ceri Richards & Dylan Thomas. **Designed Plaid Cymru's first logo, the Triban.**
- **1935:** started work on the 'Mechanical Man' for the major 1938 Glasgow Empire Exhibition.



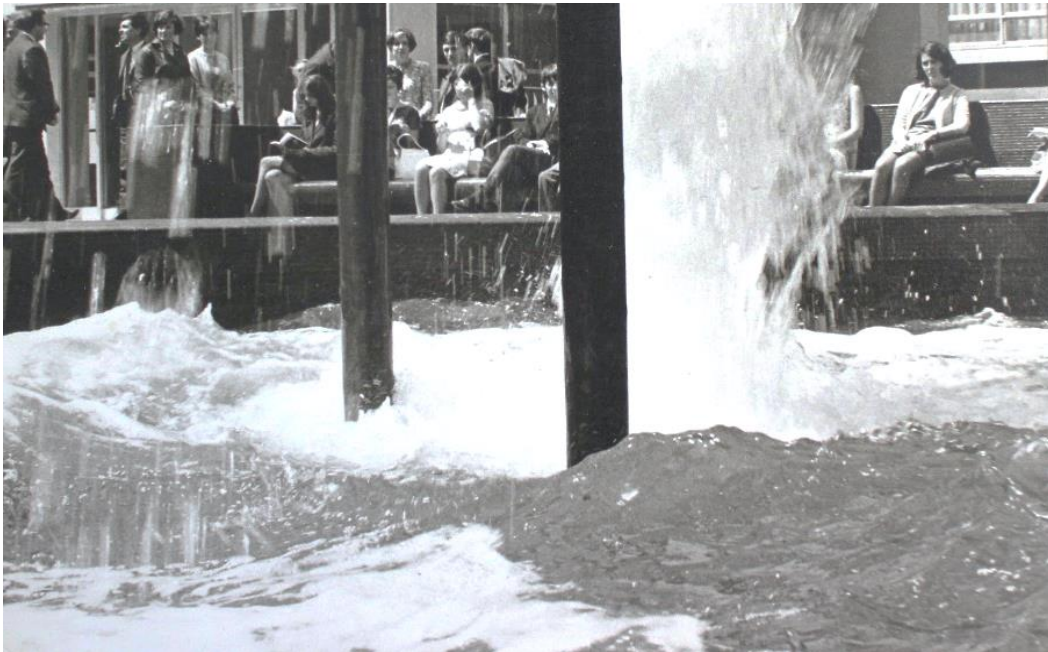
## RH – Post-war Career

- **1939:** With family, moved to Talwrn, Anglesey and did war work for Cammell Laird and later Saunders-Roe in Beaumaris.
- **Late 1940s:** Asked by Misha Black to join Hugh Casson's design team for the 1951 Festival of Britain & given 4 projects.
- **1955:** Appointed lecture in design at Liverpool School of Architecture
- and bought a family house, for Edrica, his son and 4 daughters in Llanwrst.
- **1969:** Retired from LSA, but remained in the City working on 3 fountain commissions.
- **1979:** Returned to Talwrn to continue landscaping garden and died there in **1980.**

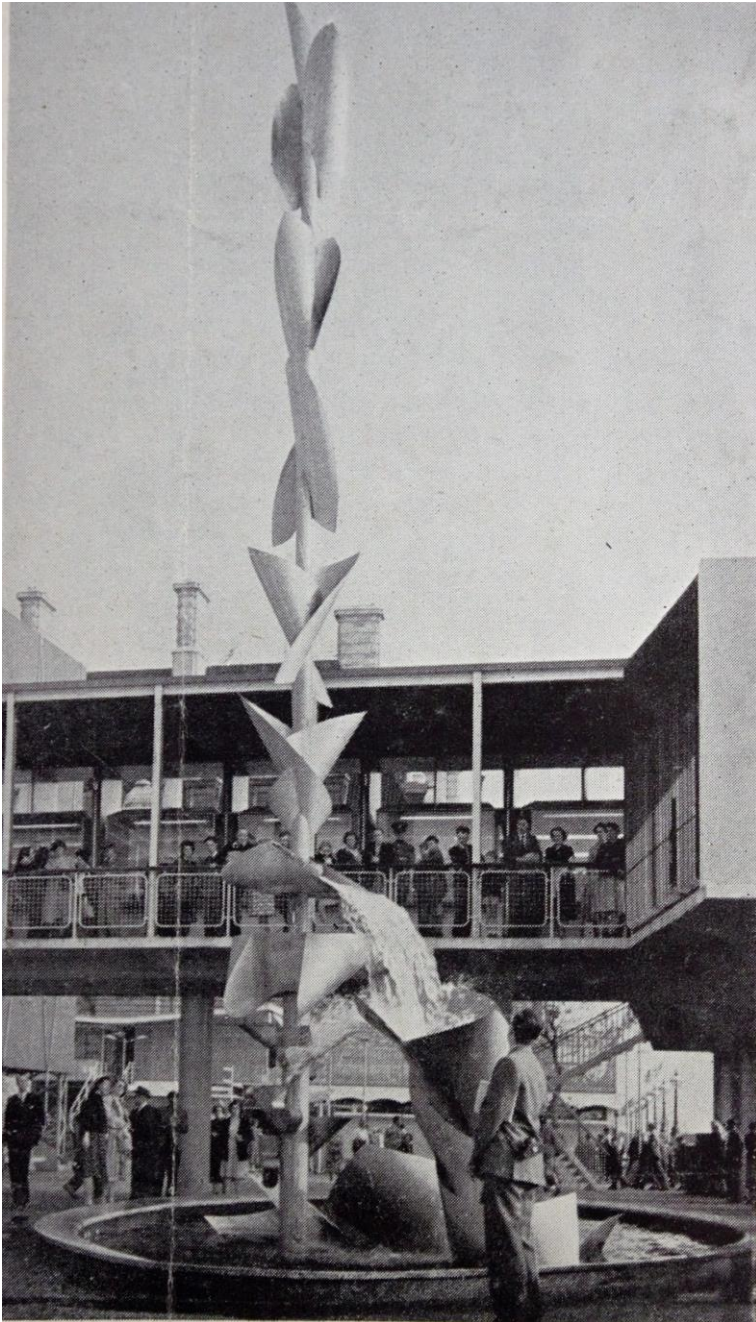


## Richard Huws: Main Inspirations

- Uncommon mix of Engineer and Artist and drew on both disciplines for his designs
- < The north-east coast of Anglesey close to Richard Huws' Penysarn home
- < Close up of the Piazza fountain pool after opening ceremony in May 1967
- As he said, he aimed to and re-created *"The sound and movement ... of the restless, temperamental sea"*
- He said he found the sprays and cascades of traditional fountains monotonous



# 1951 Festival of Britain Water Mobile Sculpture



- Outside Basil Spence's Sea and Ships Pavilion,
- Appropriately, he wanted to create the dramatic effect of waves crashing on a rocky shore.
- Found he could achieve this using tipping hoppers
- But brief was for a 40ft plus high fountain  
So had water first cascading down from the top in 2 separate streams
- One filled a large top hopper which tipped onto a sculptural aluminium stack
- Other filled an even larger hopper tipping directly onto sculptural forms in the pool
- Below that were 4 smaller hoppers filling from the vertical supply pipe – **more like the Liverpool fountain**





## “A Temporary Prototype”

- The fountain became one of main attractions at the South Bank Festival site.
- But, while an outstanding success visually, mechanically it was anything but.
- The backward return and powerful forward motion of the 2 larger hoppers had to be restrained by springs and ‘oil dash pots’.
- Largest hopper held over a ton of water
- RH later reported that the fountain *“shook itself to bits before the festival ended”* & that he *“spent most of my time repairing it”*.
- He therefore discouraged attempts by the GLC to retain and later re-erect his fountain
- Regarded it as *“a temporary prototype”* for later fountain designs - the first being his Liverpool fountain.

# Commissioning Fountain

## MSC Fountain Sub-Committee 1962-67

In July 1962, the Merseyside Civic Society proposed commissioning a fountain to commemorate the opening of the Tryweryn scheme & set up a Sub-Committee:-

Scheme involved flooding of Tryweryn valley and village of Capel Celyn in Gwynedd.

**Protesters marching through Liverpool >>>>**

MSC approached Richard Huws to design the fountain but **as a Welsh nationalist, RH would not be associated with the scheme.**

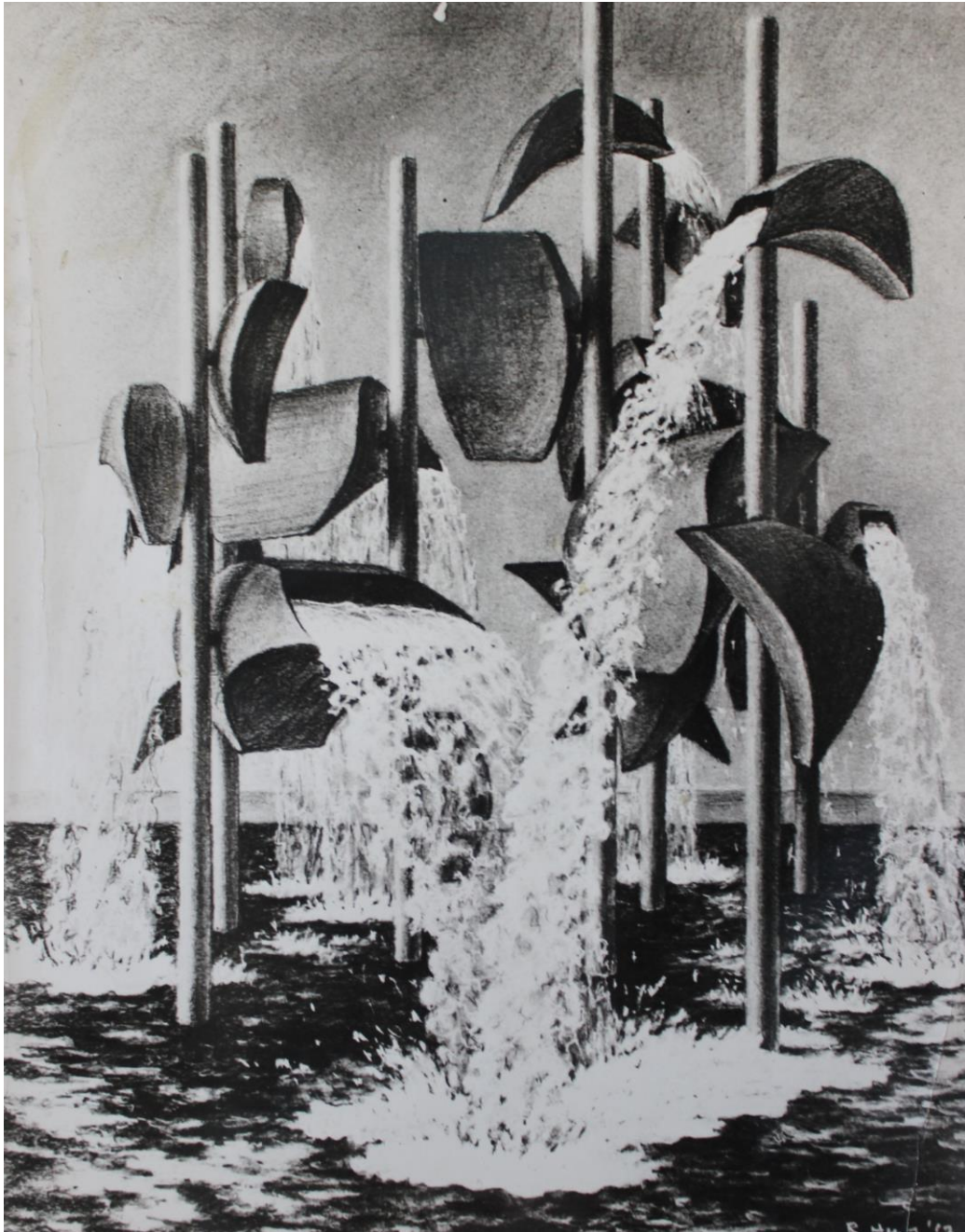
Wanting RH as the designer, the MCS agreed that the fountain should, instead, simply **commemorate the opening of the precinct for which it was proposed, so:-**

**Does NOT commemorate the Tryweryn scheme**

- F.J Gamenisch, Solicitor - Chair of the Sub-C.
- Chair of MCS – originally Colin Reay.
- **Colin Wilson, ARIBA – Proposed the Fountain.**
- **Roy Parker, ARIBA – Proposed Richard Huws.**
- Two Other MCS members
- **Representatives of Graeme Shankand (Liverpool City Planning Consultant)**



# Design of Piazza Fountain



< One of RH's presentational drawings

- Presented to Sub-Committee, **Oct 1962** and to Graeme Shankland & Walter Bor, City Planning Officer, **January 1963**
- Proposed 20 tipping stainless-steel hoppers supported on and fed from 7 bronze vertical support pipes.
- Since 1951, RH had been designing out the problems then encountered
- Chose to extend vertical support/supply pipes above the top hoppers, likening the effect to “**knitting needles skewered through a ball of wool**”

# Search for Suitable Site

Proposed Pedestrian Network  
planned by Graeme Shankland  
Associates for the  
1965 Liverpool City Centre Plan

Followed principles of 1963  
Buchanan Report

< Pedestrian bridge over the Strand

1971  
to  
2007



# Search for Suitable Site

on Planned Pedestrian Network

## 1. Bold Street/Hanover Street

Site proposed in July 1962, but later dismissed due to long delays in the associated area redevelopment scheme





# Search for Suitable Site on Planned Pedestrian Network

1. Bold Street/Hanover Street
- 2. Church Street/Parker Street**

**Site proposed in Sept 1962, but  
also later dismissed due to long  
delays in the associated area  
redevelopment scheme**



# Search for Suitable Site

on Planned Pedestrian Network

1. Bold Street/Hanover Street
2. Church Street/Parker Street
- 3. Williamson Square**

**Site suggested in January 1963 by Richard Huws to enhance the sound effects, being more enclosed than the previous two.**



# Search for Suitable Site

on Planned Pedestrian Network

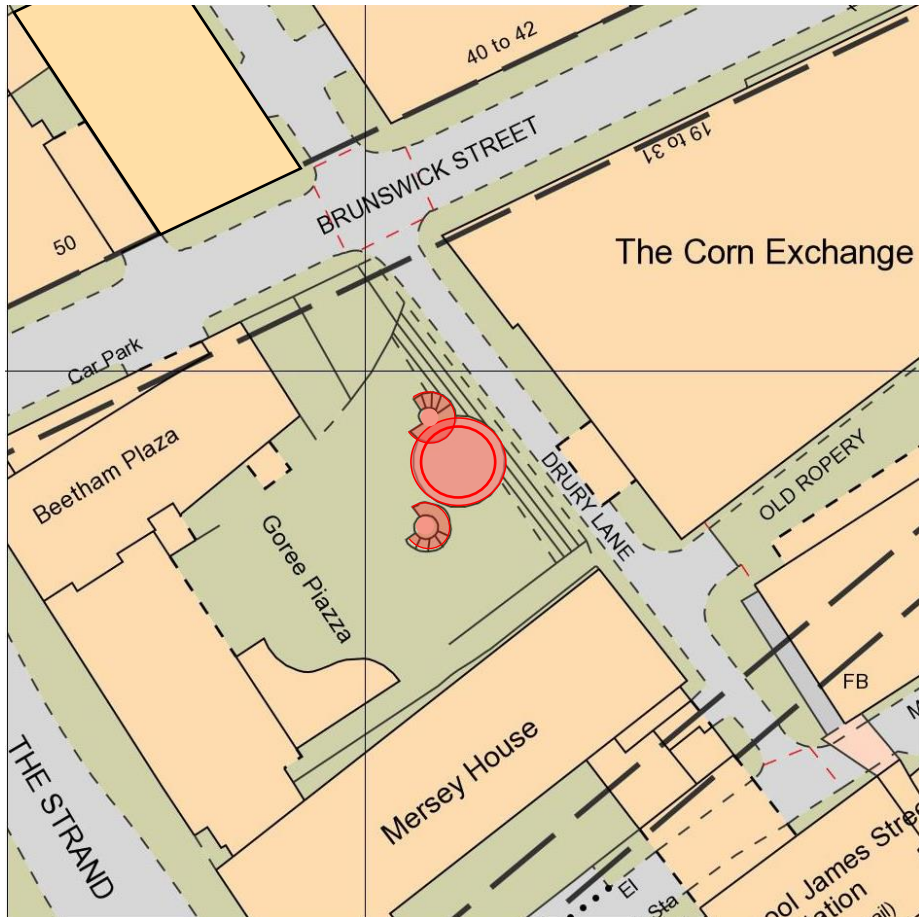
1. Bold Street/Hanover Street
2. Church Street/Parker Street
3. Williamson Square
4. **The Goree Piazza**

- Site proposed in July 1964, and considered ideal by RH, enhancing the sound and visual effects by being the most enclosed.
- **NOT his “fourth choice location”**



# Suitability of the Goree Piazza site

Proposed new Apart-hotel



- The first and only surviving purpose built, public square built for 1965 Shankland Plan
- Ideal site, enhancing the fountain both aurally and visually by being easily the most enclosed
- Suitability later improved by use of reflective cladding on the surrounding buildings
- Further enclosed to NW when apart-hotel built.
- Site otherwise quiet, enabling effects to be fully appreciated, devoid of traffic/other distractions
- The architectural interest is heightened by the fact that it is in an unexpected, 'hidden' location  
Visitors intriguingly hear the fountain first
- African plaque is effectively Liverpool's only memorial to its role in the slave trade

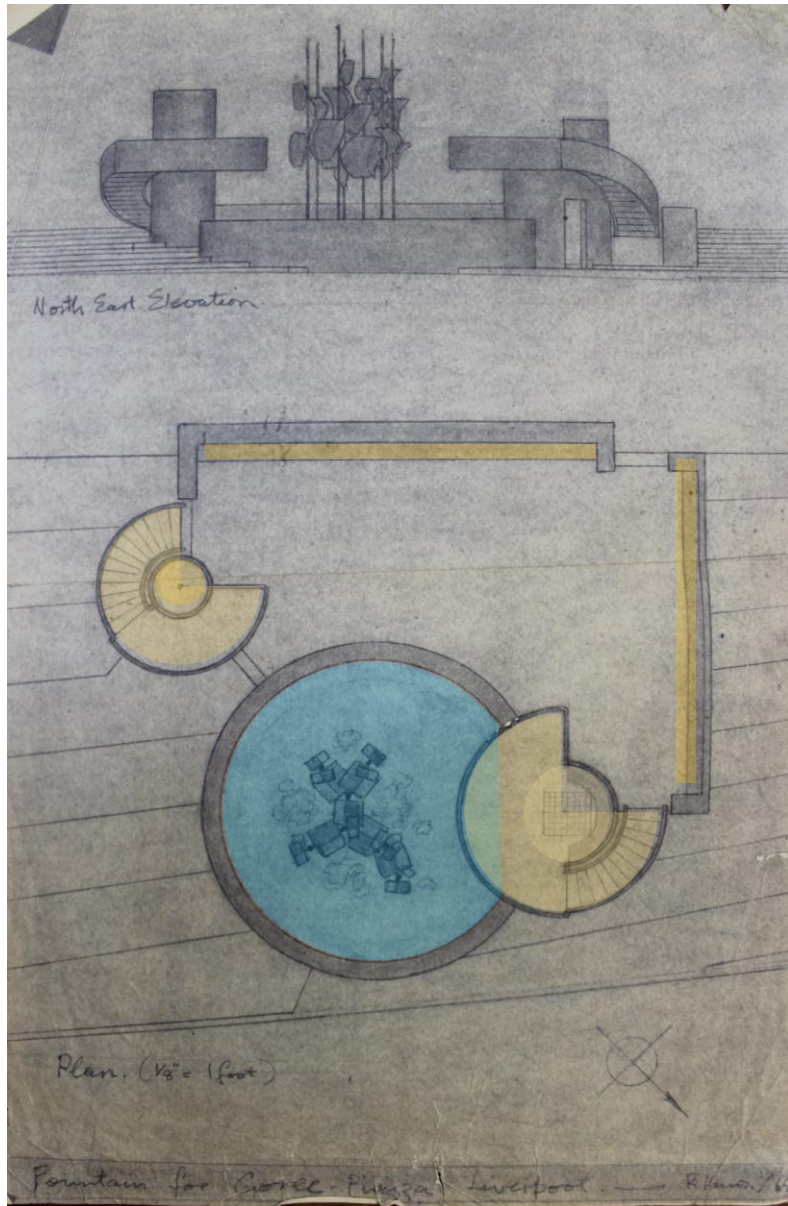
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- The architectural interest is heightened by the fact that it is in an unexpected, 'hidden' location  
Visitors intriguingly hear the fountain first
- African plaque is effectively Liverpool's only memorial to its role in the slave trade
- Appropriately, the closest of the 4 proposed sites to the Mersey estuary

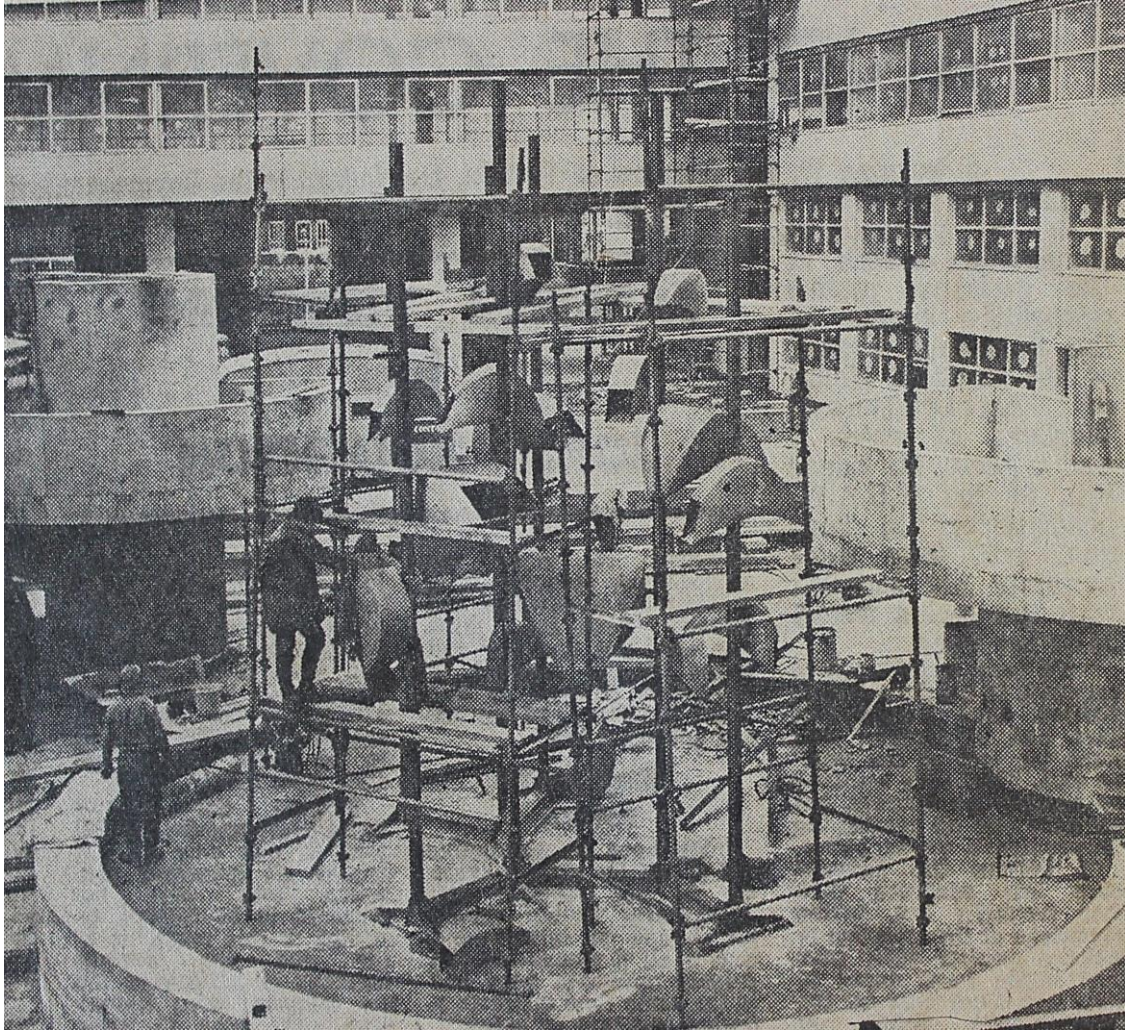
# Design of Fountain Complex

- Development's London architects, Gotch & Partners, designed a rectangular pool alone
- **1965:** Richard Huws redesigned complex with a design that complemented the sculptural forms of the fountain itself, to give:-
  - A much larger, circular receiving pool
  - An integral cantilevered viewing platform with a pump room below in the circular base.
  - A freestanding cantilevered viewing platform around a circular ventilation shaft to carpark
  - Two seating walls forming a separate space
- **Viewing structures essential to fountain's operation, full observation and enjoyment**



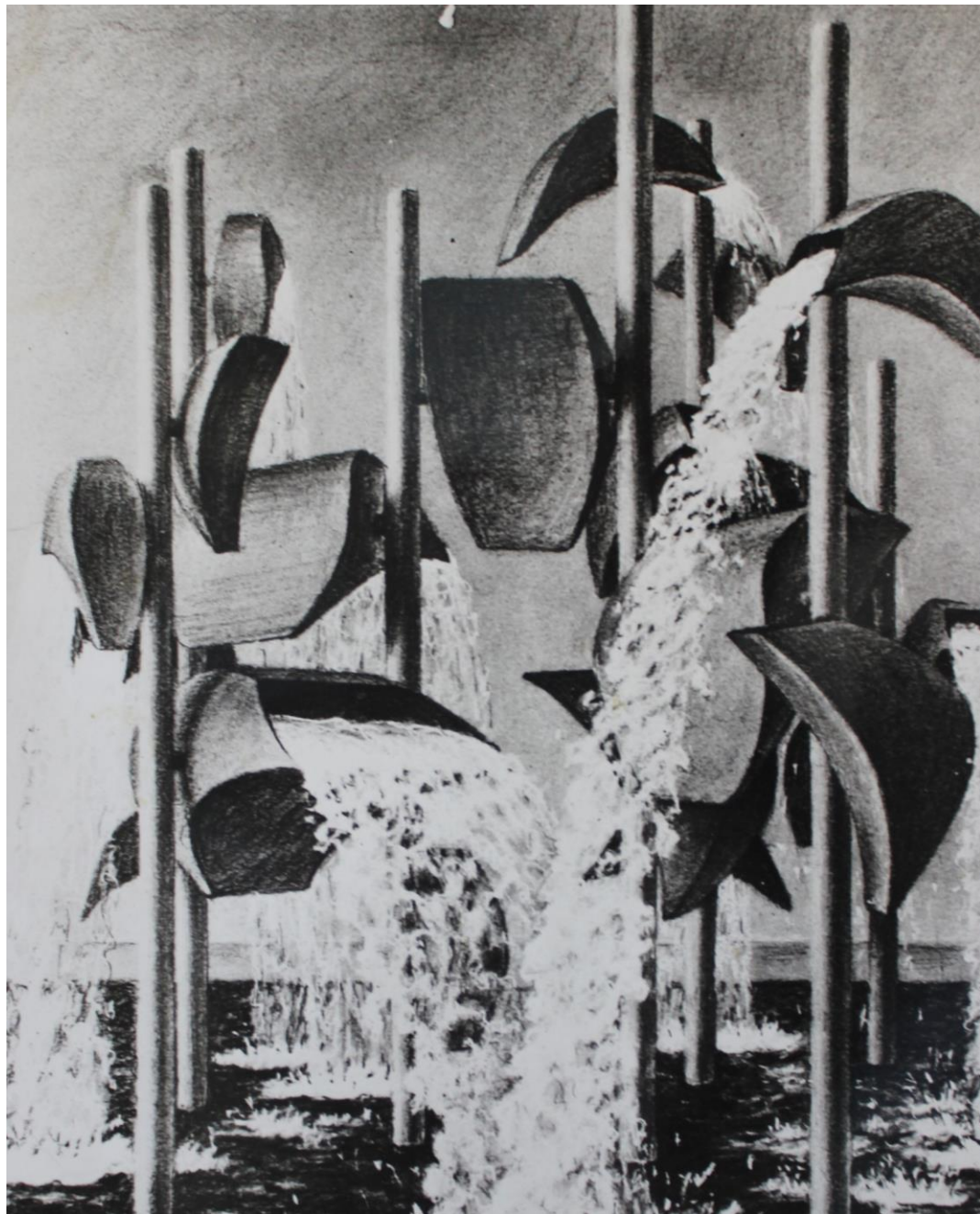
**RH's design of 1965**

# Fountain Construction



The fountain hoppers being fitted

- RH commissioned Cammell Laird to fabricate the fountain
- **Circa 1964/65**: First trial hoppers made in several sizes from galvanised steel, using apprentices
- Framework erected at shipyard to balance the hoppers and test them .
- Acted as a test for Liverpool fountain, but probably also used for his 1965 Tokyo Trade Fair fountain .
- **Autumn 1966**: Liverpool hoppers fabricated in stainless steel , again using supervised apprentice labour.

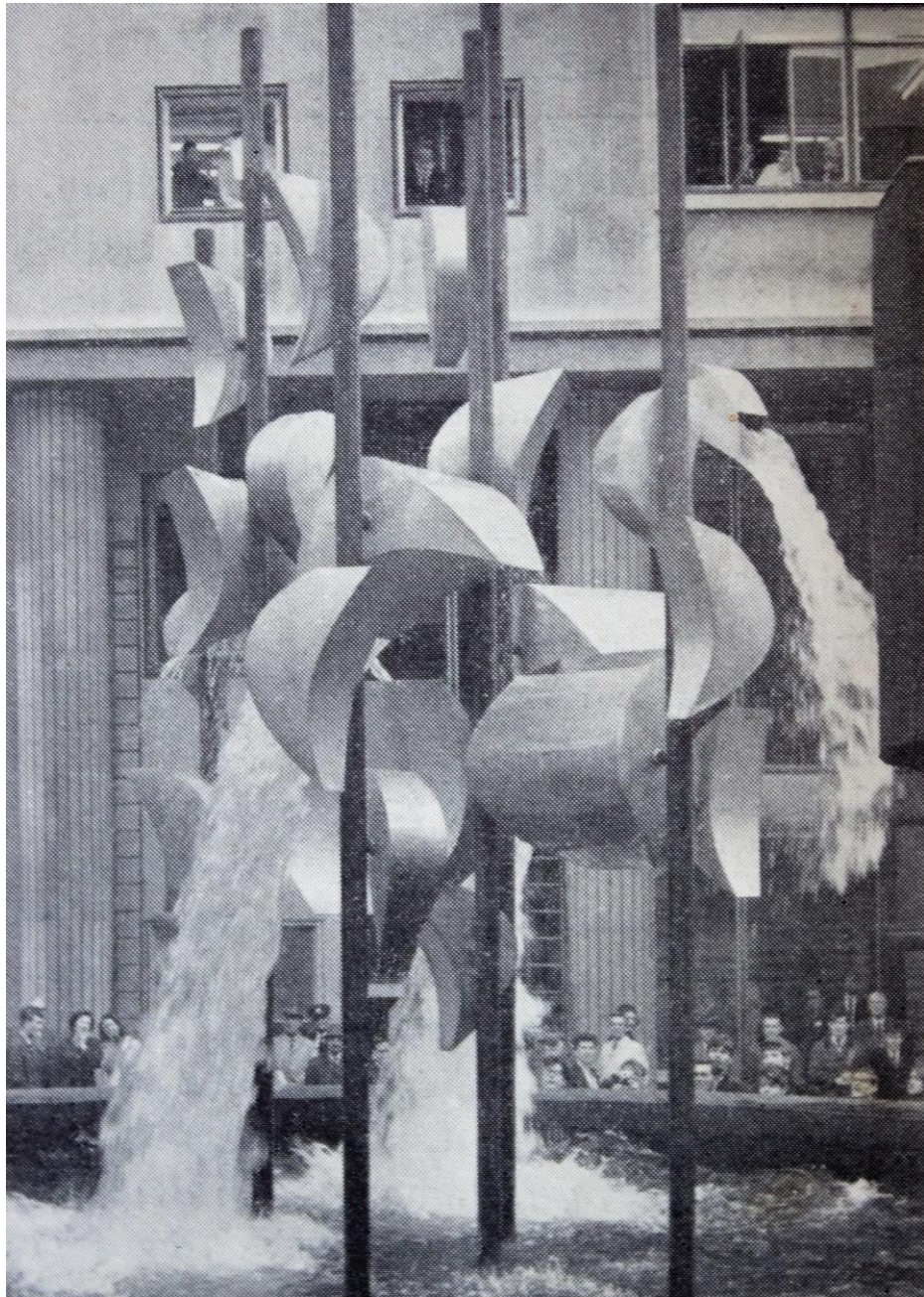


**Built as  
designed  
in 1962**

**< October  
1962 design**

**May 1967 >  
photograph  
RH on right**





## Completion and Opening 1967

- Arts Council Grant of £750 given to MCS to cover half of Richard Huws' fees.
- Given on recommendation of Hugh Scrutton, Director of the Walker Art Gallery, who commented that *“There is no doubt that your project is an outstandingly good one”*.
- 7/4/67: *“buckets are being polished today”*
- 14/4/67: Modified to give *“less violent flow”*
- **2 May 1967**: Opening ceremony attended by The Mayor, Chairman of Thames Estates (the developers), Richard Huws & his youngest daughter and main members of MCS etc.
- The opening was widely reported in local, national and architectural press – as in 1951.

# The fountain complex after its opening, May 1967



**^ From upper floor of Wilberforce House  
< Fountain complex on day of opening**

# The fountain complex after its opening, May 1967



^ Fountain complex with seating walls



^ Fountain from Drury Lane



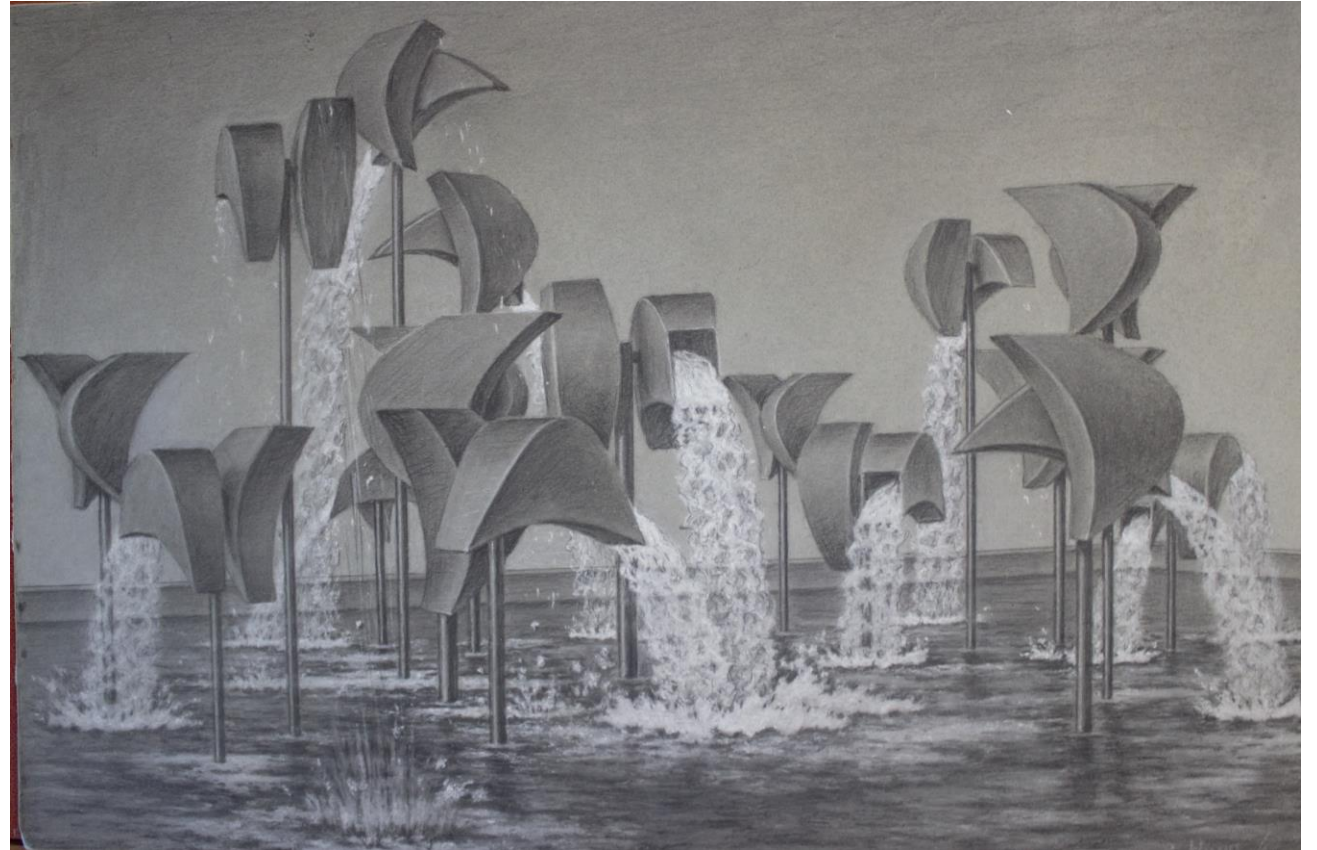
# Richard Huws' 6 other fountain commissions

**1957:** Model for stone fountain for a very small courtyard at a Manhattan apartment, New York



**RH realised that kinetic fountains were not suitable for all situations!**

**1964:** Presentational drawing of fountain for BP headquarters, Moorfields, London



# Richard Huws' 6 other fountain commissions

**1965:** Child watching BP fountain (part of headquarters design) at Tokyo Trade Fair

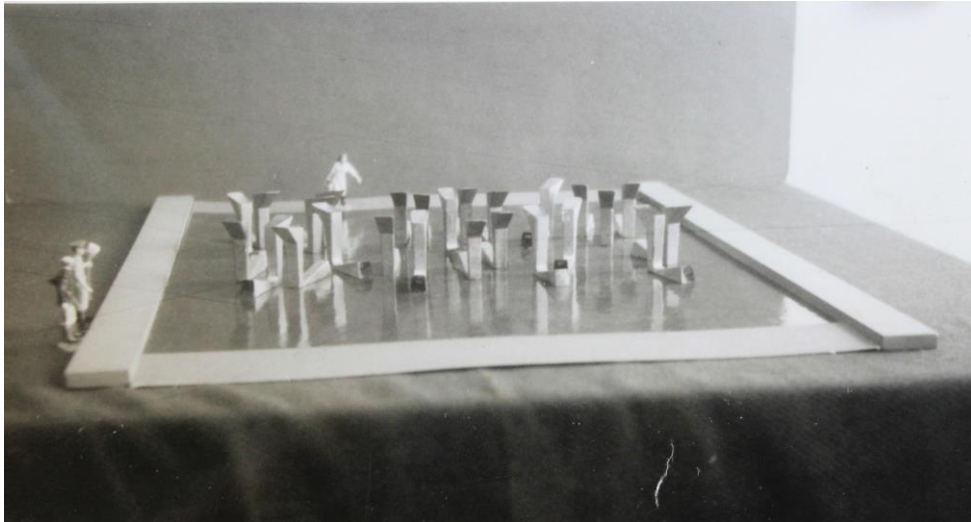


**1972-73:** Children watching fountain in St James's Square, Grimsby replaced c. 1977 with Victorian cast iron drinking fountain!



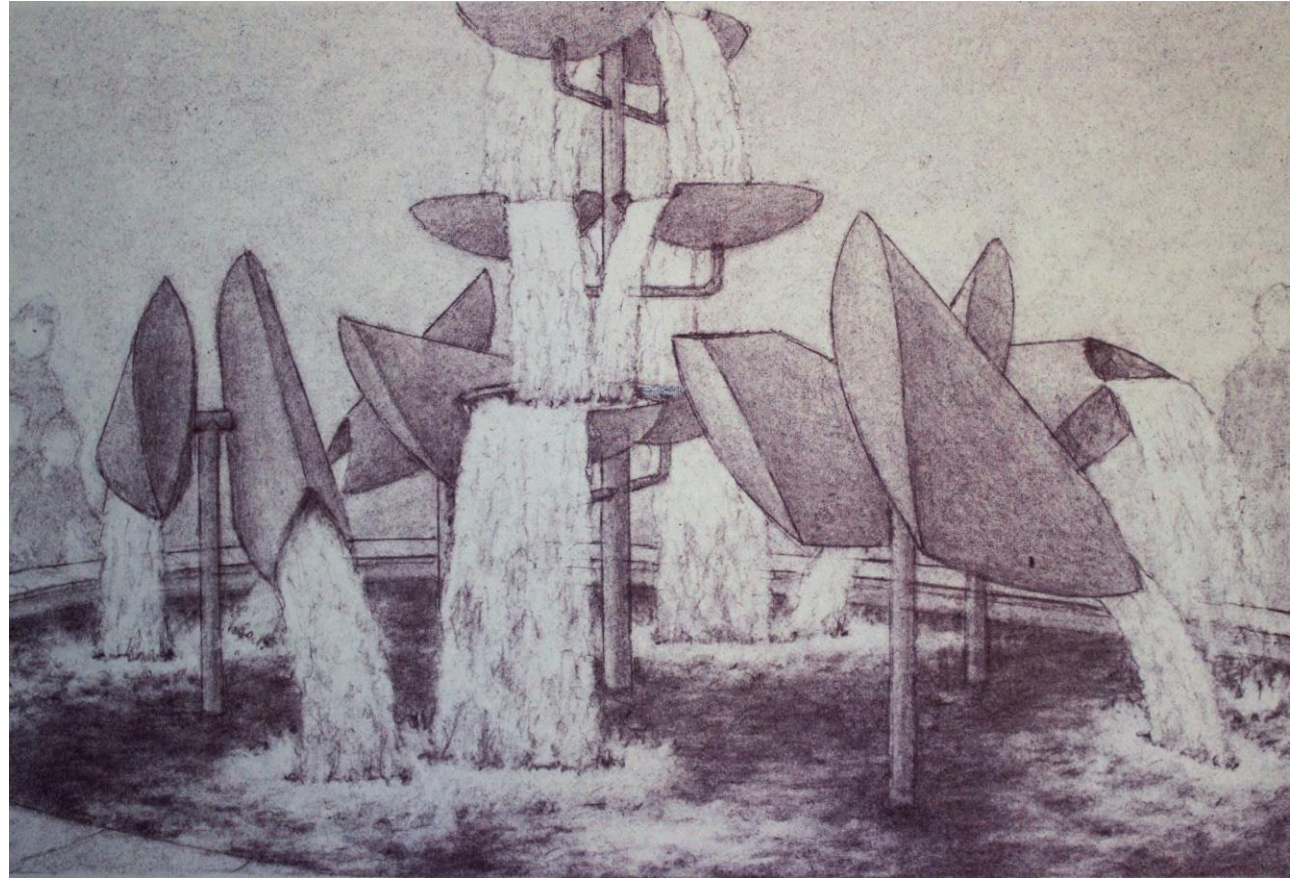
# Richard Huws' 6 other fountain commissions

**1973-74:** Block model for Basildon kinetic fountain



**Full set of working drawings deposited in National Library of Wales in 2009, but subsequently lost by the library!**

**1975-79:** Presentational drawing of fountain for the Harvey Centre, Harlow New Town



**Commissioned by Sir Frederick Gibberd**

# Richard Huws' 8 Commissioned Fountain Projects

Date of design/ opening	Proposed Location	Commission for:-	Number hoppers/ upstand	Hopper type	Tipping times (secs)	Material for hoppers/ upstands	Est. cost excluding pool etc	Design built	Still exists
1950-51	South Bank London	Festival of Britain, 1951	6 1	'Prototype' + cascade	N.K.	Aluminium/ Sprayed steel	£4,500 (£134,375)	Yes	No
1957	Manhattan New York	Mr and Mrs Buttinger	N.A.	N.A.	N.A.	Stone	N.K. (2017 prices)	No	No
1962-67	<b>Drury Lane Liverpool</b>	<b>Merseyside Civic Society</b>	<b>20 7</b>	<b>'Bucket'</b>	<b>15-90</b>	<b>Stainless steel/Bronze</b>	<b>£4,500 (£79,695)</b>	<b>Yes</b>	<b>Yes</b>
1964	Moorfields London	British Petroleum	32 16	As Liverpool	N.K.	N.K.	N.K. (2017 prices)	No	No
1965	1965 Tokyo Trade Fair	British Petroleum	N.K.	As Liverpool	N.K.	Galvanised mild steel	N.K. (2017 prices)	Yes	No
1972-73	St James' Sq. Grimsby	Borough Council	48 24	As Liverpool	40-45	Galvanised mild steel	£2,700 (£32,615)	Yes	No
1973-74	St Martins Pct. Basildon	Development Corporation	40 20	'Facetted'	All 30 approx.	Fibre glass/ Bronze	£7,000 (£80,480)	No	No
1975-79	Harvey Centre Harlow	Sir F. Gibberd & Partners	8 5	'Improved' + cascade	20-30	Stainless steel/Ditto	£11,000 (£87,720)	No	No

# Fountain Projects with Liverpool 'Bucket' Types

Date of design/ opening	Proposed Location	Commission for:-	Number hoppers/ upstand	Hopper type	Tipping times (secs)	Material for hoppers/ upstands	Est. cost excluding pool etc	Design built	Still exists
1950-51	South Bank London	Festival of Britain, 1951	6 1	'Prototype' + cascade	N.K.	Aluminium/ Sprayed steel	£4,500 (£134,375)	Yes	No
1957	Manhattan New York	Mr and Mrs Buttinger	N.A.	N.A.	N.A.	Stone	N.K. (2017 prices)	No	No
1962-67	<b>Drury Lane Liverpool</b>	<b>Merseyside Civic Society</b>	<b>20 7</b>	<b>'Bucket'</b>	<b>15-90</b>	<b>Stainless steel/Bronze</b>	<b>£4,500 (£79,695)</b>	<b>Yes</b>	<b>Yes</b>
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1975-79	Harvey Centre Harlow	Sir F. Gibberd & Partners	8 5	'Improved' + cascade	20-30	Stainless steel/Ditto	£11,000 (£87,720)	No	No

# Least/Most Hoppers & Most/Least Expensive

Date of design/ opening	Proposed Location	Commission for:-	Number hoppers/ upstand	Hopper type	Tipping times (secs)	Material for hoppers/ upstands	Est. cost excluding pool etc	Design built	Still exists
1950-51	South Bank London	Festival of Britain, 1951	6 1	'Prototype' + cascade	N.K.	Aluminium/ Sprayed steel	£4,500 (£134,375)	Yes	No
1957	Manhattan New York	Mr and Mrs Buttinger	N.A.	N.A.	N.A.	Stone	N.K. (2017 prices)	No	No
1962-67	Drury Lane Liverpool	Merseyside Civic Society	20 7	'Bucket'	15-90	Stainless steel/Bronze	£4,500 (£79,695)	Yes	Yes
1964	Moorfields London	British Petroleum	32 16	As Liverpool	N.K.	N.K.	N.K. (2017 prices)	No	No
1965	1965 Tokyo Trade Fair	British Petroleum	N.K.	As Liverpool	N.K.	Galvanised mild steel	N.K. (2017 prices)	Yes	No
1972-73	St James' Sq. Grimsby	Borough Council	48 24	As Liverpool	40-45	Galvanised mild steel	£2,700 (£32,615)	Yes	No
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1975-79	Harvey Centre Harlow	Sir F. Gibberd & Partners	8 5	'Improved' + cascade	20-30	Stainless steel/Ditto	£11,000 (£87,720)	No	No

# Fountain Commissions Actually Constructed

Date of design/ opening	Proposed Location	Commission for:-	Number hoppers/ upstand	Hopper type	Tipping times (secs)	Material for hoppers/ upstands	Est. cost excluding pool etc	Design built	Still exists
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# Fountain Projects Still Surviving – to Date

Date of design/ opening	Proposed Location	Commission for:-	Number hoppers/ upstand	Hopper type	Tipping times (secs)	Material for hoppers/ upstands	Est. cost excluding pool etc	Design built	Still exists
1950-51	South Bank London	Festival of Britain, 1951	6 1	'Prototype' + cascade	N.K.	Aluminium/ Sprayed steel	£4,500 (£134,375)	Yes	No
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1964	Moorfields London	British Petroleum	32 16	As Liverpool	N.K.	N.K.	N.K. (2017 prices)	No	No
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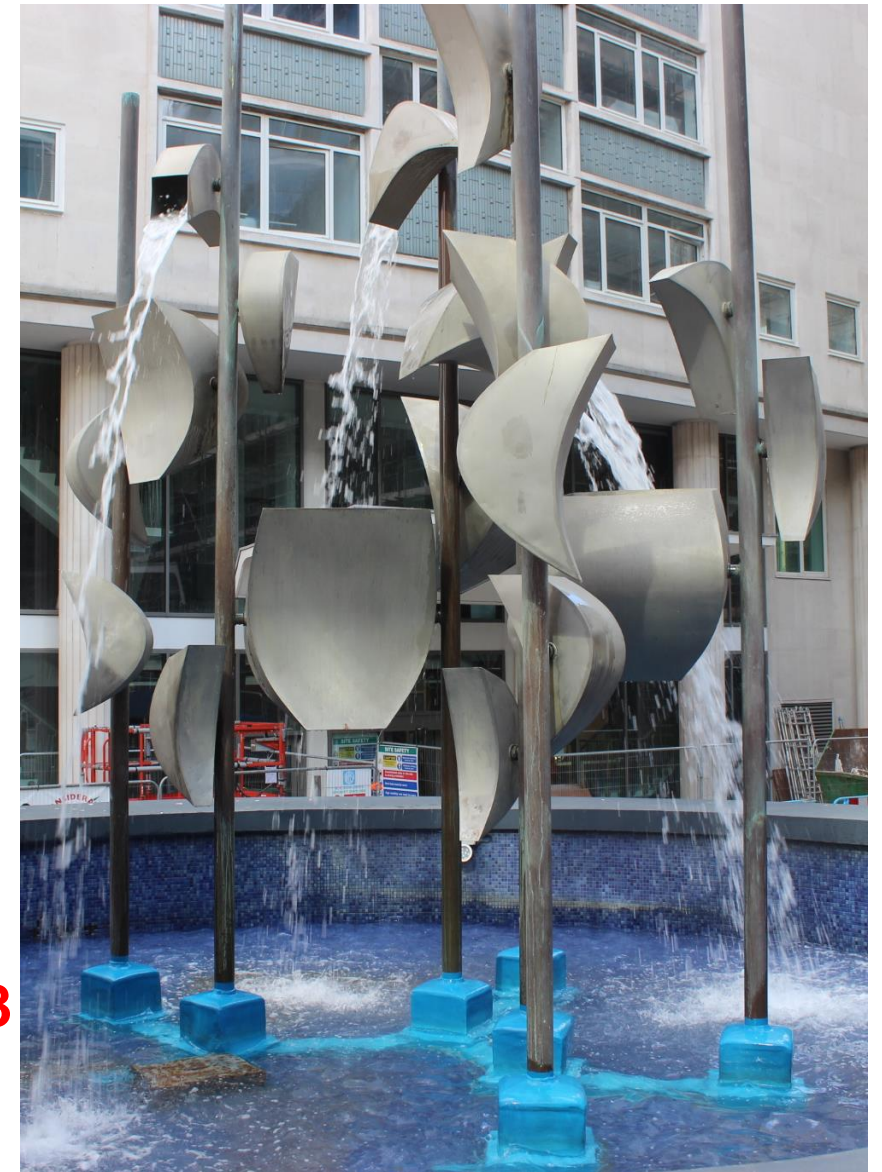




**Bucket Fountain, Cuba Mall  
Wellington, New Zealand, 1969**

## **The world's 2 surviving public 'bucket' fountains**

◀ **Designed by architects/  
planners, Burren and  
Keen, for the Cuba St  
Pedestrian Mall in 1969  
Renovated in 1980, 1998  
and 2003; maintained  
by the City Council**



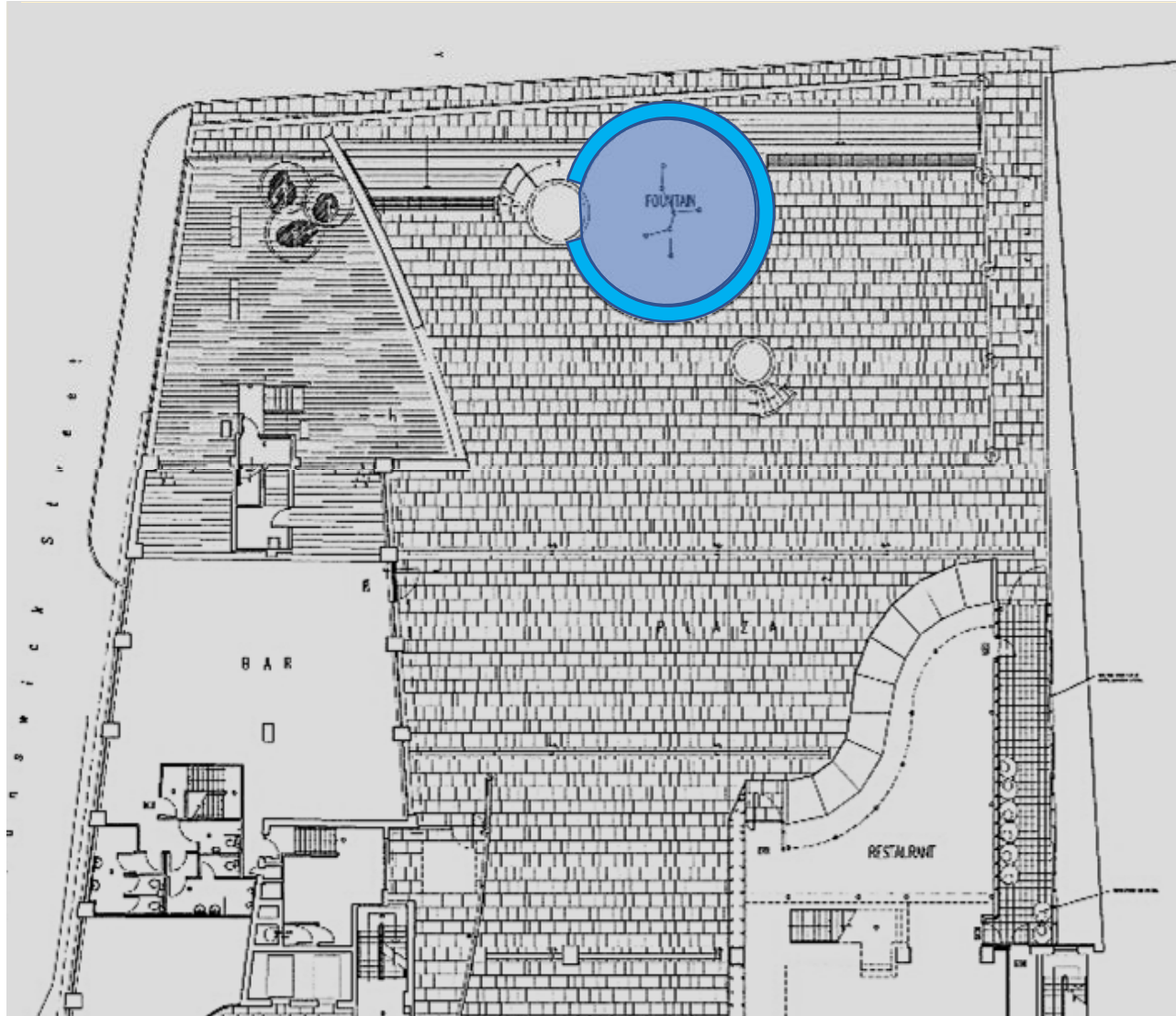
**Piazza Fountain, Beetham  
Plaza, Liverpool, UK, 1962-67**



## A Target for Vandals, 1967-97

- **May 1967**: Piazza was then a wholly office area, largely unsupervised at night, in a city that RH claimed was “**famous for vandalism**”.
- Temporarily stopped after only 10 days due to people throwing litter into the hoppers
- **Pre January 1968** – Shut down for complete overhaul after further vandalism
- After that, hoppers cleaned daily and water changed weekly, rather than weekly and monthly as originally planned.
- **After 3 years**: Bearings showing signs of wear resulting in increasingly leakages
- **Early 1980's**: thought to have been turned off more or less permanently

# 1997-2000 Restoration



Ground Floor Plan after re-landscaping

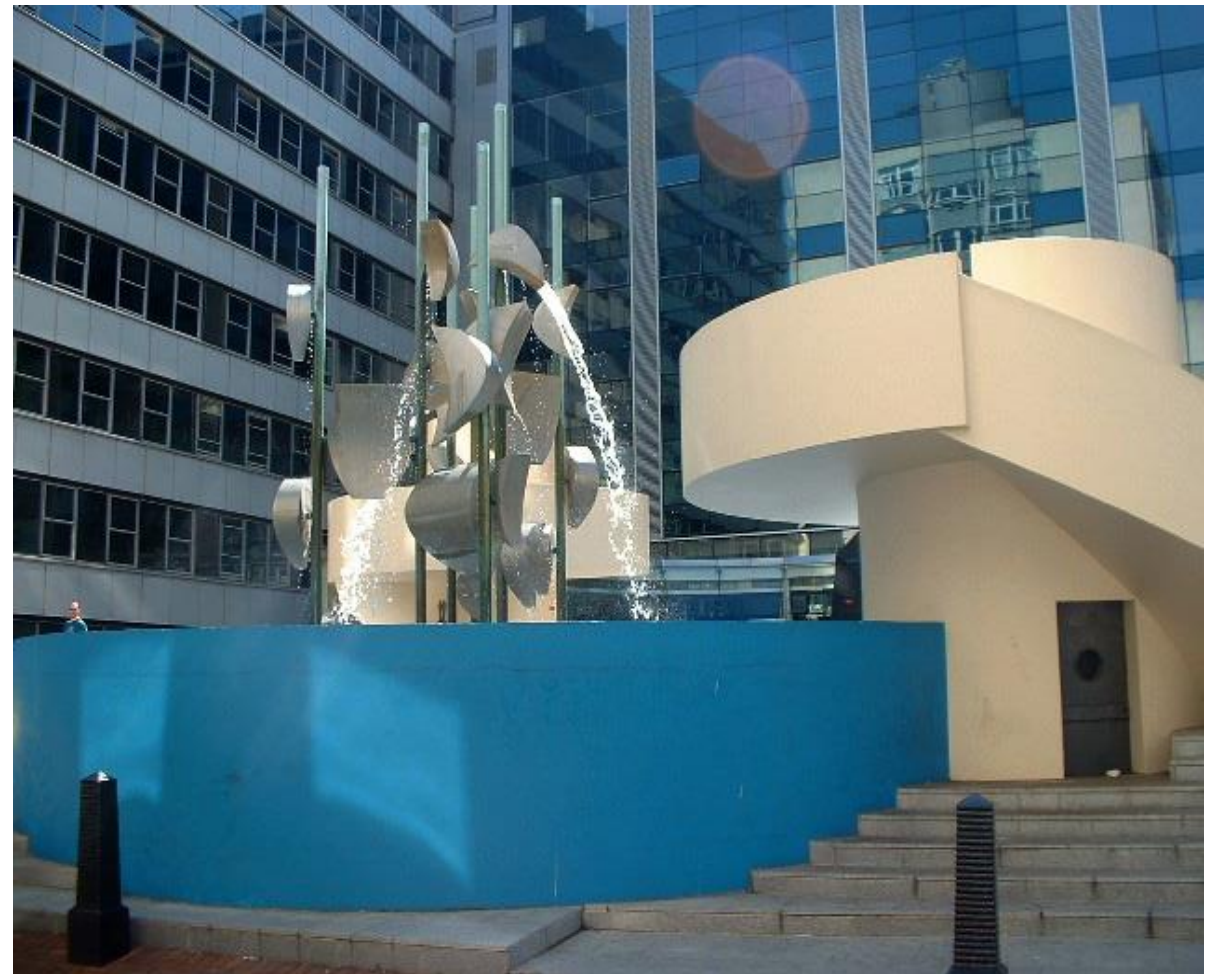
By Brock Carmichael, Architects,  
with BCA Landscape for the  
Beetham Organisation

- Award winning conversion and extension of Wilberforce House into a mixed use development with apartments, offices, a restaurant and bar – Beetham Plaza
- Re-landscaping of Goree Piazza.
  - **Fountain seating walls removed;**
  - Void formers used to extend terrace towards Drury Lane; &
  - Shallow steps replaced with steeper ones.
- **Fountain fully restored, with new lighting and colour scheme**

# 1997-2000 Restoration



**Goree Piazza c.1997 showing very shallow steps and seating behind**



**Soon after its restoration showing steeper steps and new colour scheme**

# Piazza Fountain: Sept 2018

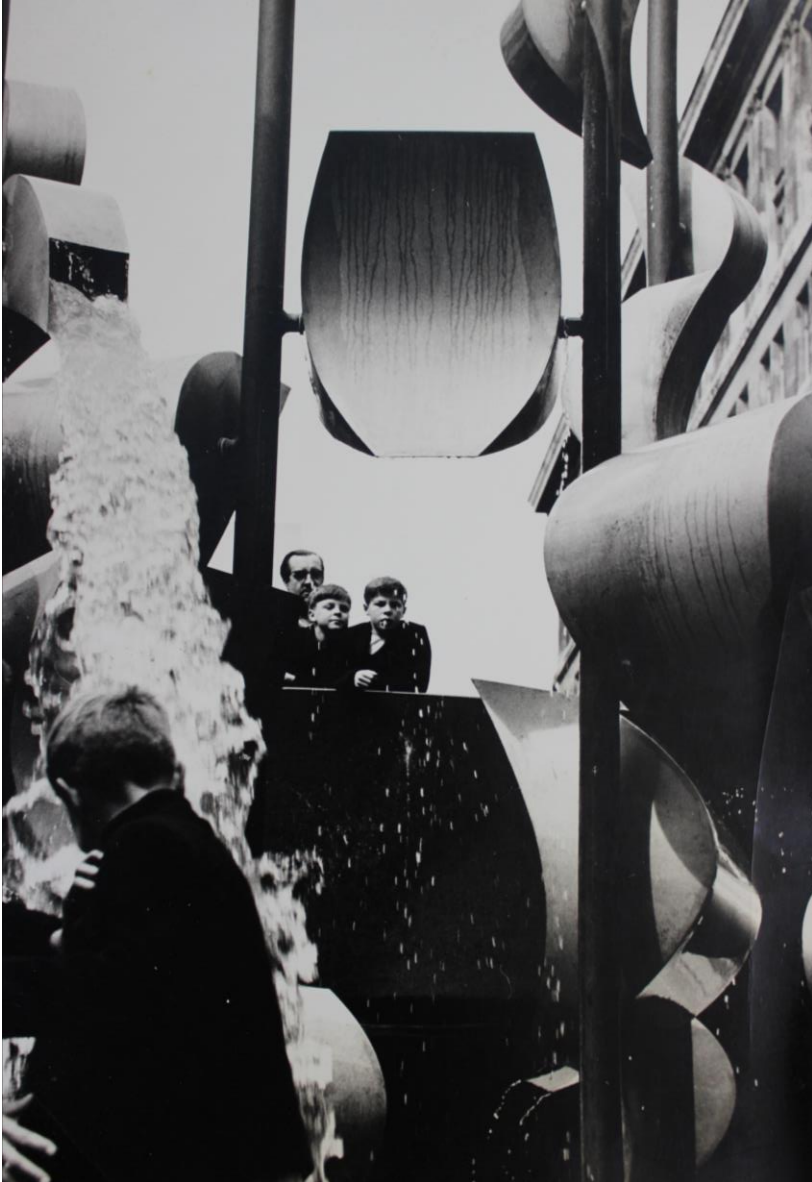
- **Author's first recent visit, found:-**
  - Only two hoppers tipping, but one reluctantly
  - Two stuck in open position & continually spewing water
  - Water turned off to remaining 16 hoppers
- **Looking at mainly YouTube videos taken over last 11 years, gradually deteriorating condition of fountain can be traced.**



# Fountain Condition 2008-2019, from videos

Year	Month	No. of hoppers tipping	No. stuck down & emptying	No. stuck upright & emptying	No. stuck upside down	Extent of leakage	Water Dyed Blue	Soapy Water	Video Source
2008	February	19	1			Little			YouTube
2010	March	Nearly all				“			“
	August	“				“			“
	September	“				“			“
2013	August	“				Moderate	Yes		“
2014	June	“				“			“
	August	“				“	Yes		“
2015	May	“	1			“			“
2017	March	“				Extensive			“
2018	April	Limited	1			“			“
	September	2	2			“			Author
	November	Limited		1		“			“
2019	February	“	1			Low P *			YouTube
	April	Nearly all			1	Extensive		Yes	Friends

\* Little apparent leakage but from long filling times the water pressure appears very low



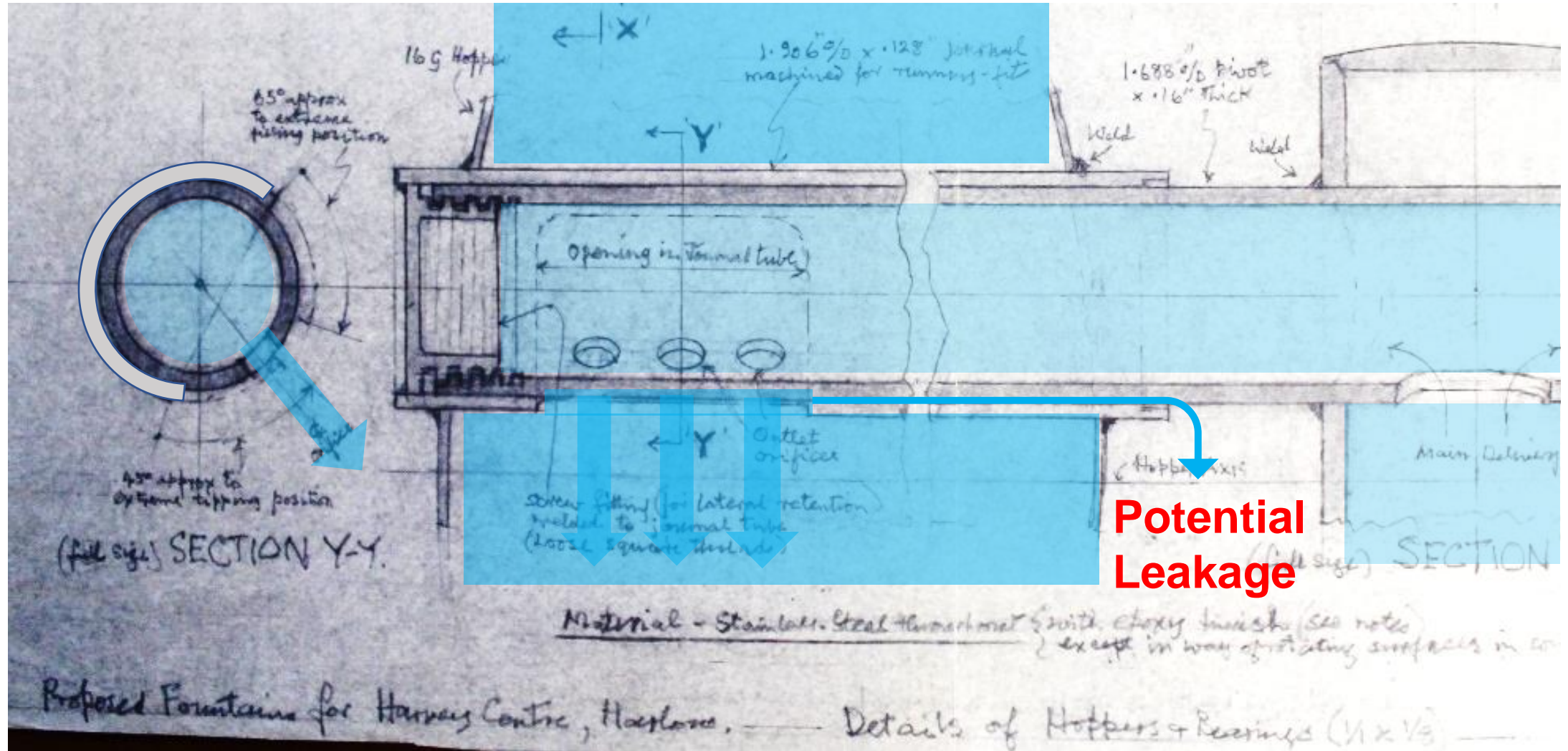
# Design/Action of Hoppers

- At the time of the fountain's opening, Richard Huws said he had ***“spent a week on the aesthetics and several years on the engineering”***.
- He determined the shape of the hoppers using calculations normally used for assessing when ships capsize.
- In this respect, the design is a near perfect example of ***“Form Follows Function”***.

(Louis Sullivan, 1896)
- Thus, it still looks remarkably ‘timeless’ unlike his 51 fountain which looked more of its time.

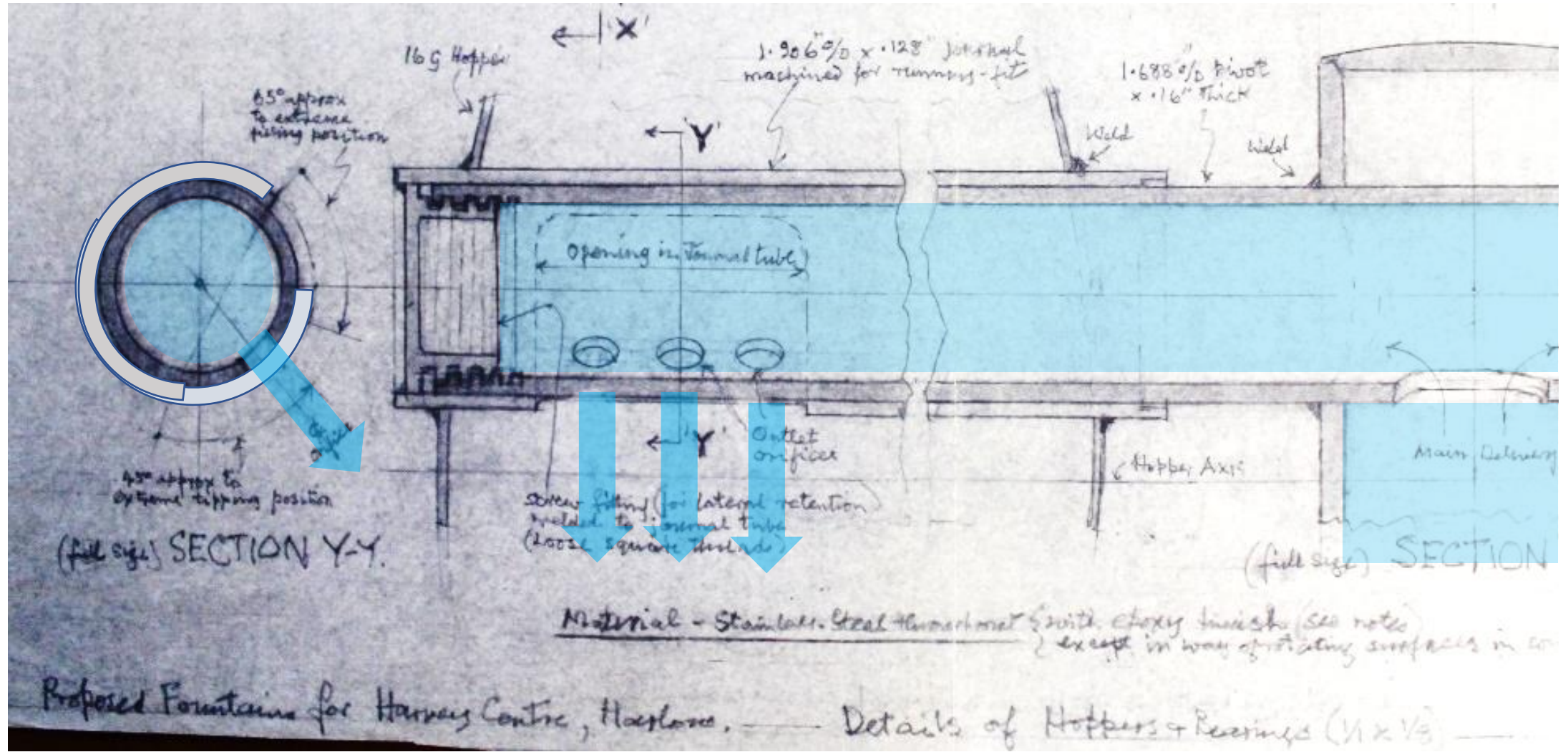
# Delivery of water to hoppers

(to give tipping frequencies of 15 to 90 seconds)

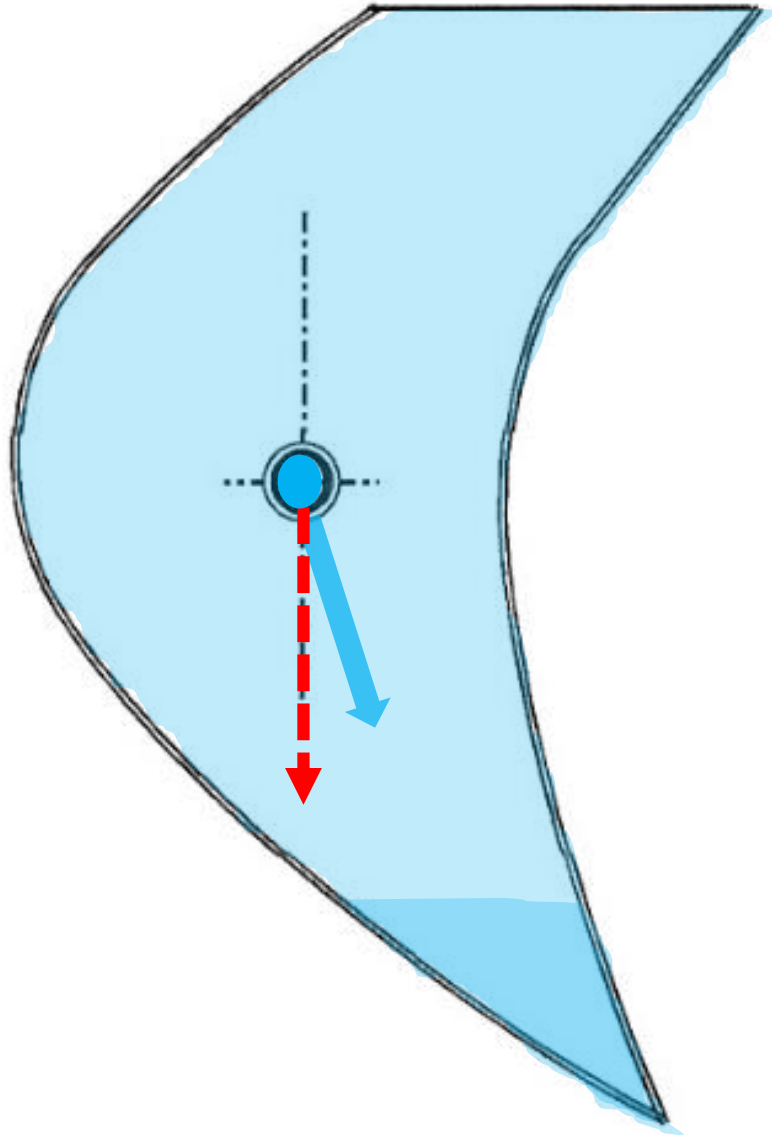




# Water is cut to hopper as it tips (to give tipping frequencies of 15 to 90 seconds)

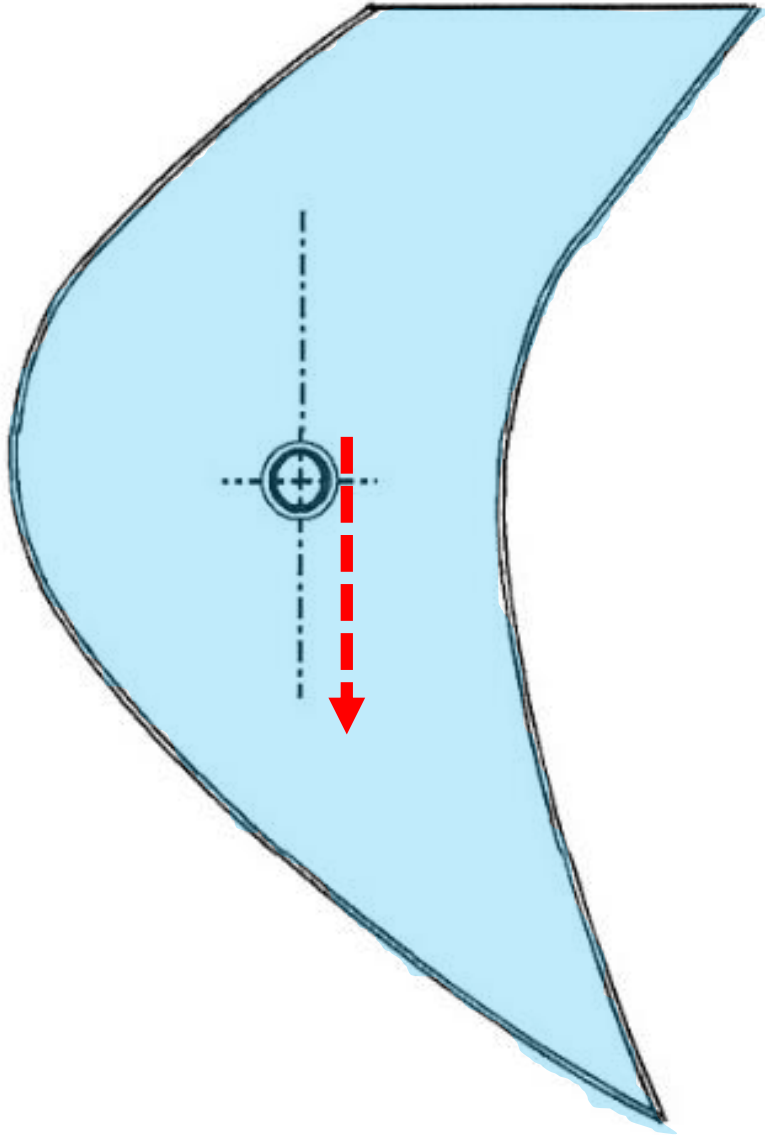


# Design/Action of Hoppers



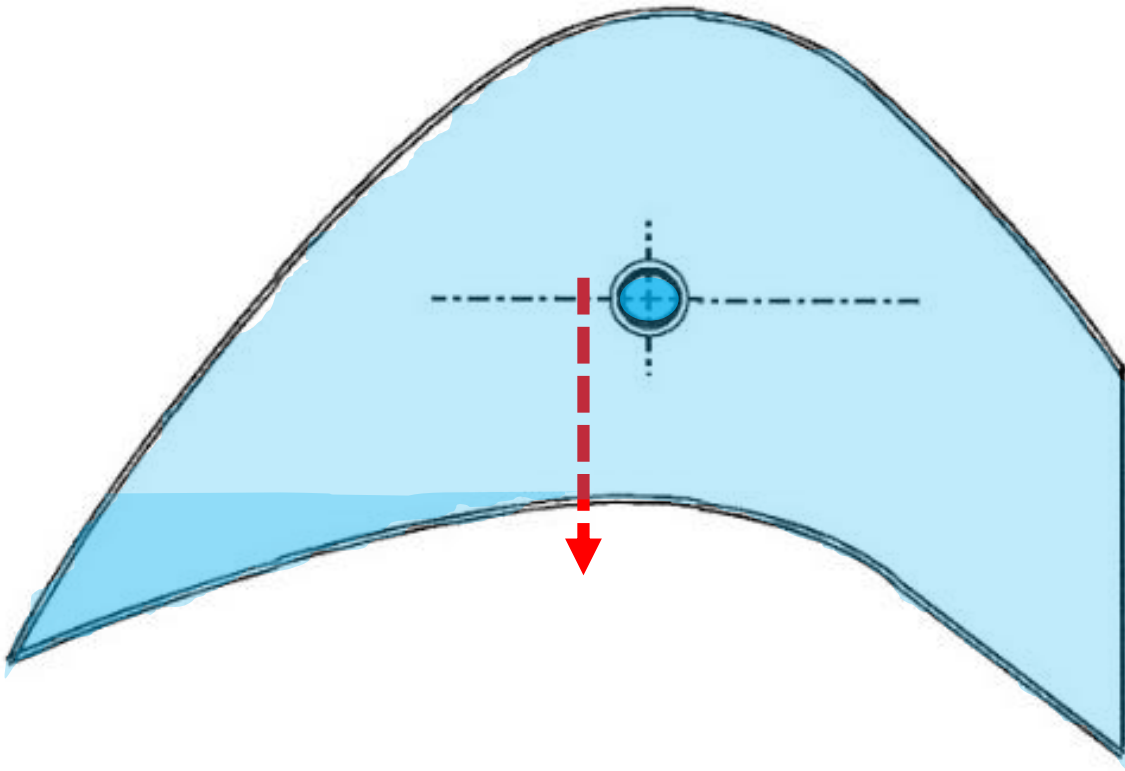
- Designed to leave some water in tail from previous fill.
- Filling rate depends on size and number of holes in central supply pipe/axle
- Hopper designed to maintain same line of gravity during majority of fill

# Design/Action of Hoppers



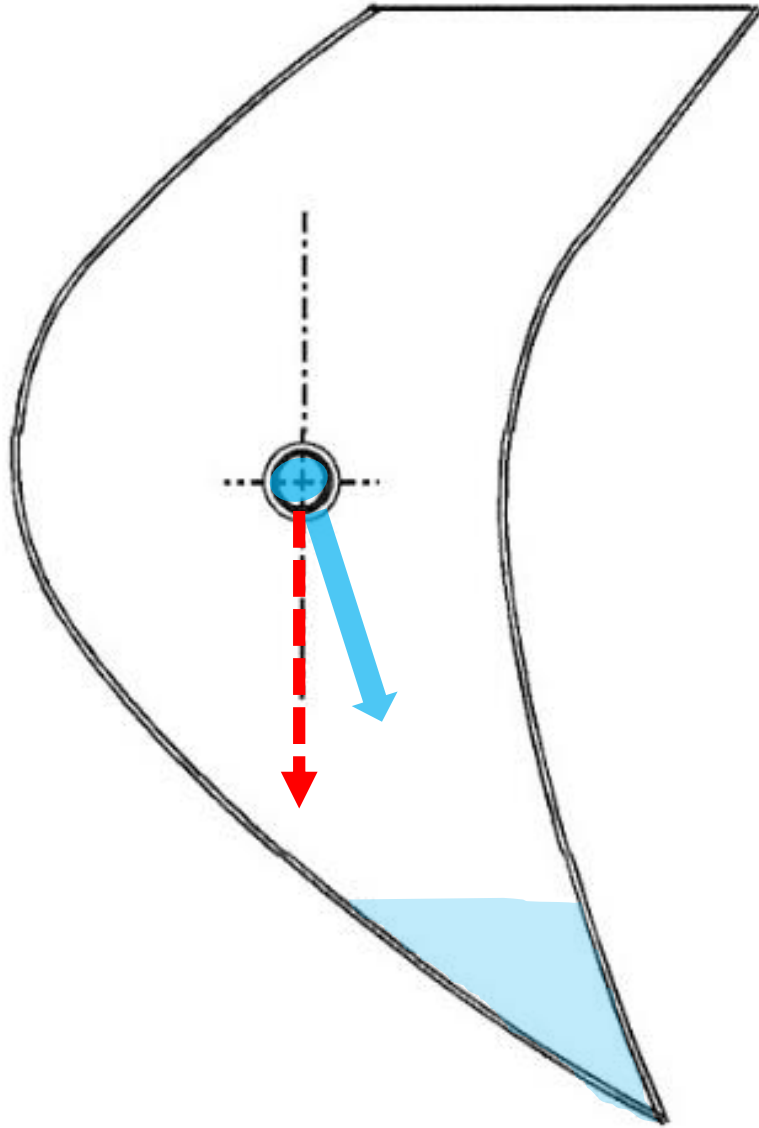
- Designed to leave some water in tail from previous fill.
- Filling rate depends on size and number of holes in central supply pipe/axle
- Hopper shape designed to maintain same line of gravity during majority of fill
- When full, centre of gravity moves forward of central axle causing it to tip

# Design/Action of Hoppers



- When fully tipped, hopper is shaped to always retain some water in tail.
- When tipped, centre of gravity moves to behind axle causing it to return.

# Design/Action of Hoppers



- When fully tipped, hopper is shaped to always retain some water in tail.
- When tipped, centre of gravity moves to behind axle causing it to return.
- Water in tail, dampens the return action to bring it quickly to a stop.
- When vertical, the hopper is then ready to refill again as before

## Piazza Fountain – Late April 2019

- Most hoppers tipping as intended
- One smaller hopper stuck upside down
- Significant leakage from axle points
- Leak from axle within one larger hopper
- Soapy water from 'vandalism'
- **Dampening of spent hoppers on return**

Horizontal allowing for perspective

As Designed 1962

As Opened 1967

**The end of the talk, but hopefully  
not of the fountain in Beetham Plaza**

**Any questions please?**

