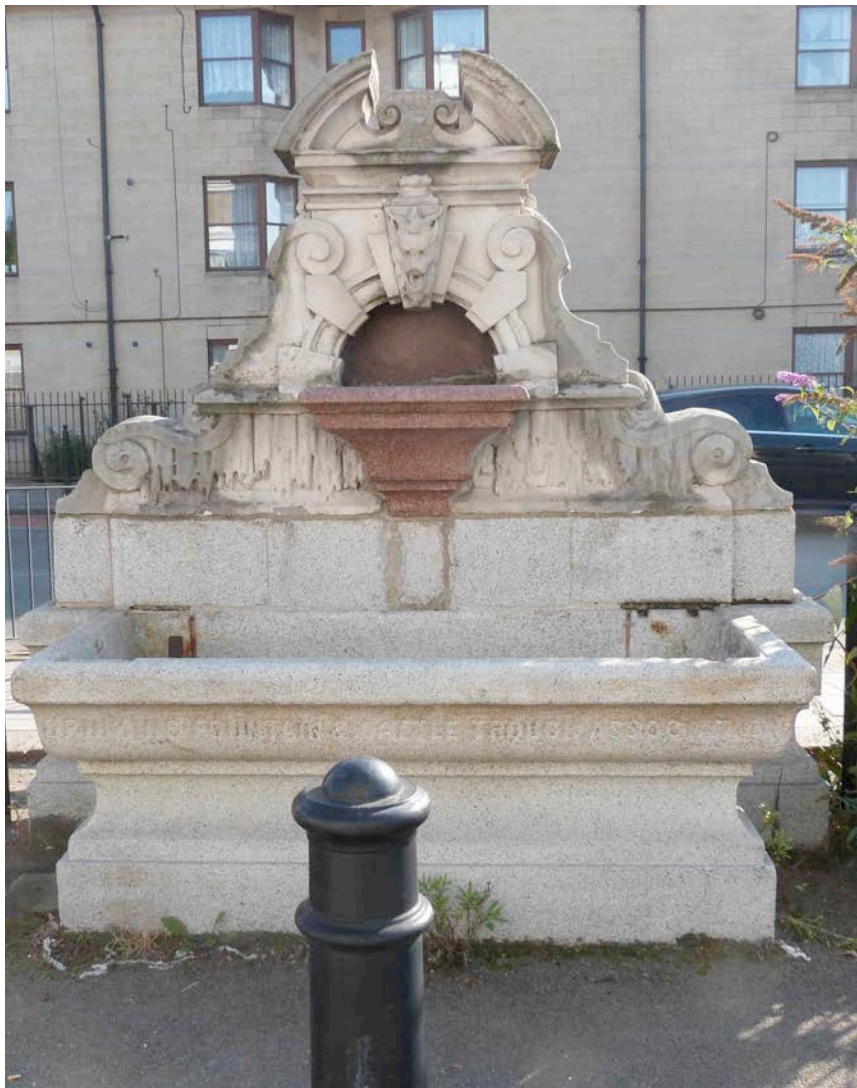


WOOD GREEN DRINKING FOUNTAIN

HIGH ROAD

LONDON N22

Condition survey and conservation assessment



WOOD GREEN DRINKING FOUNTAIN, HIGH ROAD, LONDON N22

Condition survey and conservation assessment

Introduction

The Wood Green Drinking Fountain and Cattle Trough was erected in 1901; it is a Grade II listed asset, owned by the Local Authority and currently included on the Historic England Heritage at Risk Register. This was erected by the Metropolitan Drinking Fountain and Cattle Trough Association; this was an association set up in London by Samuel Gurney, a Member of Parliament, and philanthropist and Edward Thomas Wakefield, a barrister, in 1859 to provide free drinking water. Originally called the Metropolitan Free Drinking Fountain Association it changed its name to include cattle troughs in 1867, to also support animal welfare. The Association was closely connected with the Temperance movement and, in a move to try and encourage the population to drink water rather than beer, the fountains were often sited outside pubs.

The Drinking Fountain at Wood Green was typical in that it was sited outside the 'Fishmongers Arms', now a police training centre. Wood Green had by 1901 become an important thoroughfare. Cassell's "Greater London" described it (in 1898) as: *'Since the establishment of the Alexandra Palace, and the formation of a railway through its centre, Wood Green has become quite a busy town, built round the large open space which was once a green, and fringing the Southgate Road'*.

Report brief

The Drinking Fountain is in the care of the local authority (Haringey Council). Since its inclusion on the 2015 Heritage at Risk Register, the Heritage of London Trust has offered a grant for its restoration. This report was commissioned by Historic England in order to inform the repair project. The brief was as follows:

- A site plan showing the location of the drinking fountain in relation to the pavement and adjacent railings.
- A condition survey of the drinking fountain and cattle trough, including a photographic record of all elevations. All specific problems should be photographed separately for monitoring purposes. The survey should describe the asset, comment on the condition of the fabric and structure (informed by stone sampling where necessary), and identify any previous interventions. Any health and safety concerns or access arrangements should be taken into account.
- Preparation of a method statement, any necessary drawings and schedule of repair works with specifications and itemised budget estimates (informed by cleaning trials if necessary). Options for repair should be considered, including any works necessary to bring the drinking fountain back into working order, and each option should be provided with a budget cost estimate. The specification should be in a form which can be sent out to tender.

Location

The 1:2500 site map is shown in Fig 1 and the general location in Fig 2. The Fountain is set beside a busy road and pavement and is within the curtilage of the property on the west side of the High Road; this was originally the Fishmonger's Arms and is now a Police Training facility.

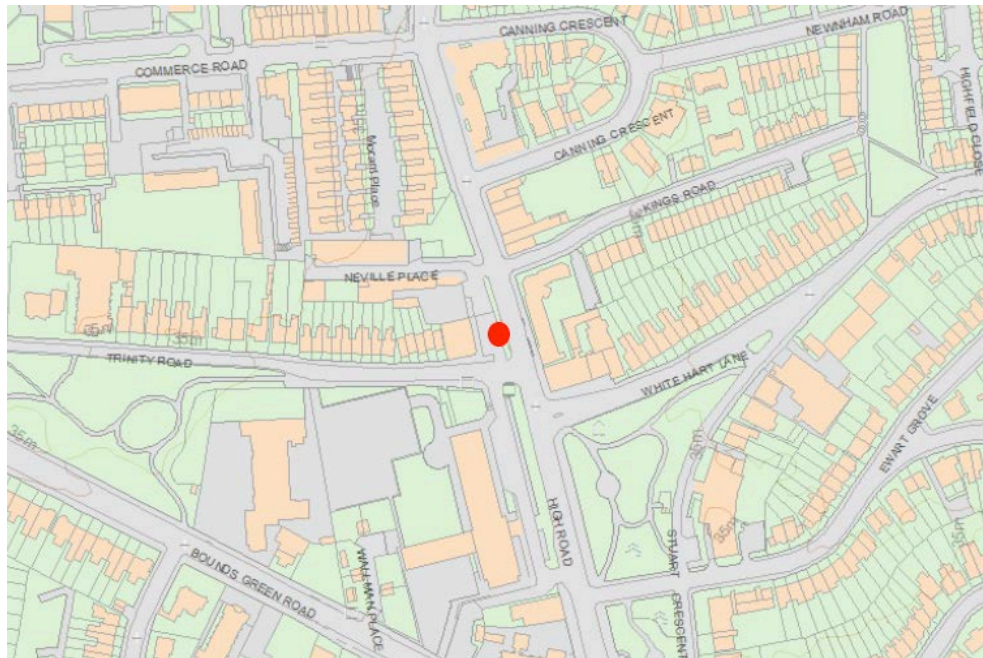


Fig 1: location plan



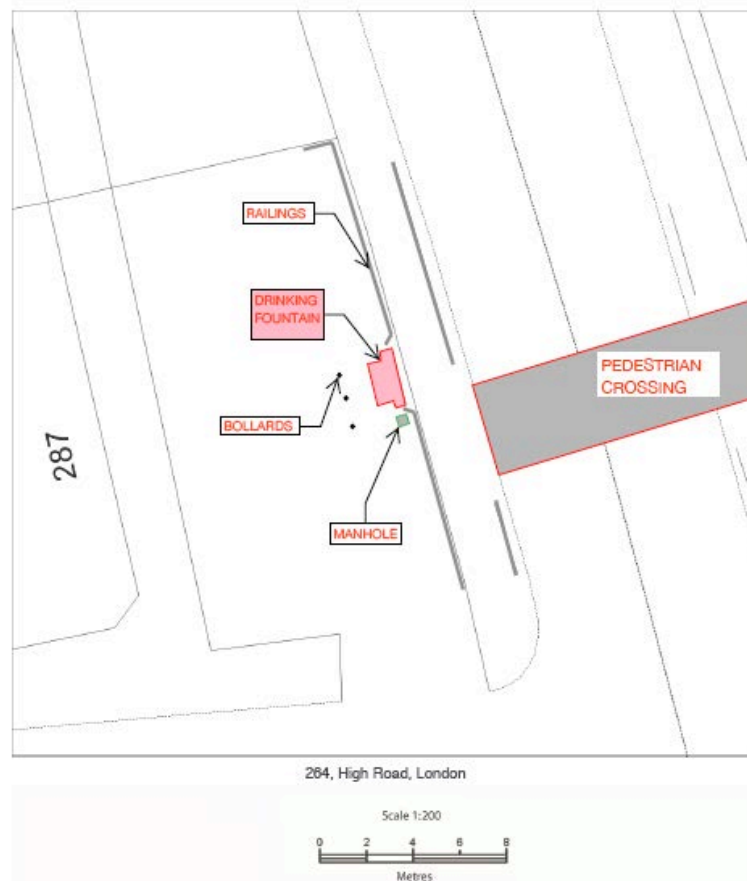
Fig 2: setting of drinking fountain

Description

The Grade II listing description (No 1249717) is as follows:

Cattle trough and drinking fountain. 1901. Grey granite trough on a moulded grey granite base. A carved Portland stone fountain head rests on the granite plinth; it is in a Roman Baroque style with a broken pediment, volutes and a prominent keystone embellished with a boar's head, and carved grotto-like vegetation below. On one side there is a semi-circular pink granite drinking bowl with the date above, 1901, and dog trough below. Inscribed 'Metropolitan Fountain and Cattle Trough Association'. The fountain and trough is of an unusually elaborate design.

The overall dimensions of the fountain are 2800 x 1700 x 2770 mm. It is set with railings to the north and south sides (see site plan Fig 3) and a series of three bollards on the west side to protect it from vehicle traffic in the adjacent car park. The surrounding surfaces are tarmac and this is slightly below pavement level on the east side.



Site plan (Fig 3)

The base of the fountain (course A – see Fig 4) consists of a very large monolithic pale granite base. This has a plinth with rectangular section at the bottom, cavetto moulding above with plain frieze and slightly rounded top. On the west side, there is an incised inscription “DRINKING FOUNTAIN AND CATTLE TROUGH ASSOCIATION”.

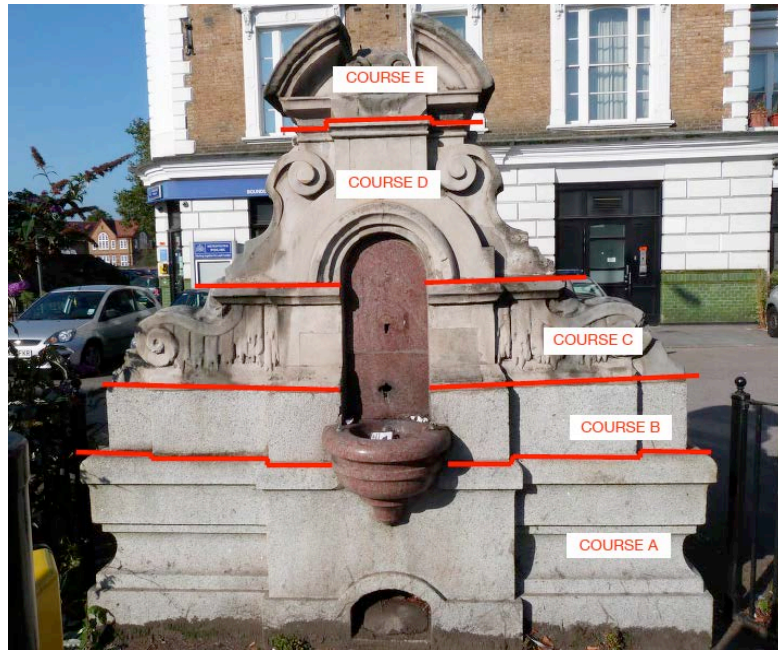


Fig 4: Diagram showing arrangement of courses of stone used in construction



Fig 5: detail of base of cattle trough with inscription

The moulding runs round all elevations of the base interrupted only on the east side in the centre where a small recess has been cut; this provided a small water receptacle for dogs. The central section on the east side is stepped forward with the base of the main drinking fountain bowl set within it.

The course above the base (course B) consists of a number of squared granite blocks; three on each side (north and south), each one stepping out slightly from the adjacent one. On the east side, the centre of this course has the drinking bowl and panel above. On the west side, the central section has a smaller inset pale granite panel.

The red granite drinking bowl is circular in plan with a bell-shaped moulding at the bottom and cavetto and ovolo moulding above. The top rim of the bowl has bronze fixings at either side (used for cups secured with chains); there is a drain at the back of the bowl. Immediately above the bowl is a flat panel made up of two stones; from investigation through the holes set in each of the stones, the panels are about 40mm deep with a hollow area behind which contained the pipework for the fountain. The hole in the lower panel was for the mechanism to activate the flow of water; the hole in the upper panel (which is of slightly different granite) was for the water-spout itself.

The course above (course C) is carved from a very oolitic Portland stone; this consists of two large stones, one each side of the central panel. These stones have scrolled ends and a falling water (grotto) motif carved in relief into each elevation. At the top of this course is a simply moulded cornice. The top of the scroll is set slightly higher than the moulding and acts as a restraint to any lateral movement in the stones above. Set within this course on the west elevation is a shallow red granite bowl, square in plan and with a similar cavetto moulding to the circular bowl on the east elevation. Behind this bowl, and filling the rear of the niche is a red granite panel.

Course D is also decorative and includes arches on both main elevations (east and west). It is mainly constructed from two stones with a joint at the north side of the keystone. The stones include the moulded cornice above. On the west elevation the arch has a highly decorated boar's head keystone; this has a hole in the mouth that used to contain the spout that fed the shallow bowl beneath. This keystone is flanked by a moulded arch with alternating voussoir blocks. The north and south sides of these block are fluted and scrolled.

The arch on the east side is a plain moulding with a plain panel above; all of these stones are superimposed onto the main stone with a vertical joint parallel to the face. The cornice above is also a separate stone. The plain panel consists of three stones with very fine joints between them. The central stone (Fig 6) has a metal fixing (hidden by mortar) on each side; this panel was designed to be removed and to provide access to the internal water mechanism.



Fig 6: detail of east side showing removable panel

The top stone (course E) consists of a single stone carved into a broken pediment with scrolled plinth in the centre. There is a stone missing from the top of this plinth.

Covermeter survey

The survey to establish the presence of any hidden metal fixings or dowels (i.e. those not visible) showed metal to be present in the following locations:

- Two fixings securing the flat panel above the arch on the east side
- Metal armatures to repairs to the upper cornice on the west side beneath the broken pediment.

There are no cramps used between individual stones in the construction of the drinking fountain.

Condition

Moss and lichen accumulated at the bottom of the granite base suggest that water sits against the stone during wet weather. The surrounding tarmac is in good condition. There is a manhole to the south side (presumably containing the water supply for the fountain); growing from the side of this is a large buddleia bush.



Fig 7: manhole to the south of the fountain (obscured by Buddleia bush) where water supply is accessed

The base (course A) is in excellent condition with almost no signs of damage or decay. The lower sections are dirty with accumulated biological growth. The recess for the dg drinking bowl (Fig 8) at ground level on the east side has been filled with tarmac and other assorted debris; it was impossible therefore to

inspect the condition of the bowl itself. The small strip between the base and the pavement on the east side is set lower than the pavement and it is thought that there is standing water during periods of heavy rainfall. In general the ground level around the base is probably higher than it was originally.



Fig 8: recess for dog bowl filed with tarmac and debris

The main trough on the west side has a number of rebates cut into the top rim (one at north end, one at SW corner and two at the SE corner); the purpose of these is unknown but it is thought that they were the location for various element of the plumbing or water disposal. There are grooves cut across the trough at either end which look as though they were plates were set into the stone. In the SE corner at bottom of the trough, there is the remnants of a lead pipe which was either a drain or it could equally have been for the supply of water.



Figs 9 and 10: view of interior of main trough from the south and north

At the NE corner, there is an upstanding iron pipe (Fig 11) (about 50mm in diameter and about 200mm high). A flange plate at the base of the pipe is bolted to the granite; this arrangement is thought to be an overflow system for the trough. The pipe itself is corroded and not thought to be original; there is no associated damage to the granite.



Fig 11: corroded pipe and flange plate

The granite blocks of course B are all sound; most of the horizontal joints have been repointed in cement mortar. In particular the joints around the central block on the west side have been crudely repointed (Fig 12). This block is thin and was probably designed to be removed to provide access to the plumbing mechanism of the drinking fountain at the same height on the east side. There are old fixing holes at the south end that have been filled.



Fig 12: course B on west side of fountain



Fig 13: course B on east side of fountain

The decorative bracket stones (course C) are generally sound but much of the detail has softened through erosion. There is some accumulation of moss on the upper surfaces and a general grey colour on the stone over most areas; this is due to microbiological growth within the pores of the stone rather than the accumulation of dirt. There are some areas of localised decay and damage; for example on the corners and edge of the scroll.



Fig 14: east side of north stone of course C



Fig 15: west side of north stone of course C



Fig 16: example of decay to Portland stone detail



Fig 17: east side of south stone of course C



Fig 18: west side of south stone of course C



Figs 19 and 20: view of north and south elevations of the fountain

Either side of the central arch on the east side, there is a square block of repair. On the south side, this repair consists of a stone indent (Fig 21); on the north side, it is a well-executed cement mortar repair (Fig 22). The symmetry of these repairs suggests that there may have been some fixings that had caused damage to the stone. The cornice above these areas is also made up in a cementitious mortar that is generally a good match for the stone and is not causing damage. There are other small areas of repair on the same cornice on the west side; again, these are all intact.



Fig 21: stone indent on south side of basin

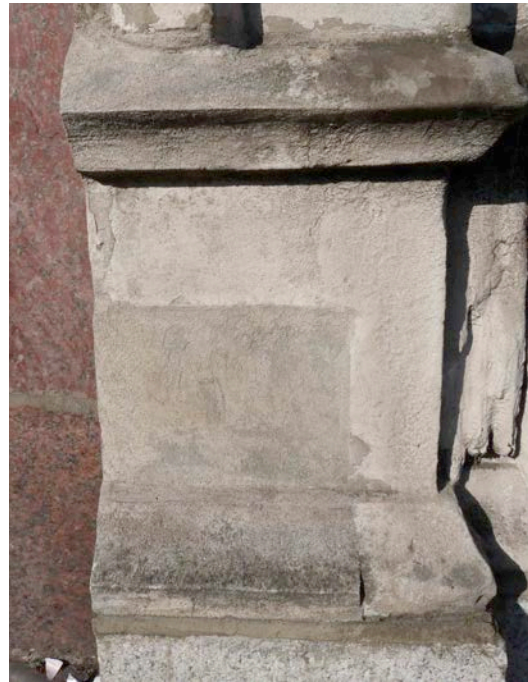


Fig 22: mortar repair on north side of basin

The granite bowl of the drinking fountain is in good condition. There is minor damage to one area of the top of the rim. The bronze fixing on the south side is broken; the one on the north side is intact and has one link of a chain attached. The drain is intact but seems to be blocked as there was some standing water (along with various other rubbish and debris) in the bowl.

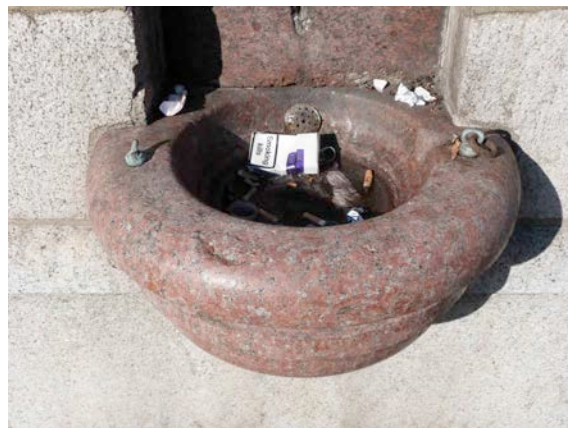


Fig 23: Central basin on east side with debris, drain and cup hooks

The granite panel above has some historic damage/deterioration adjacent to the joint with the bowl; the hole in the centre of the panel has some remnants of mastic and mortar. This panel appears to be slightly set back from the original plane and it tilts towards the south. The upper panel is in sound condition; it may not be original as it is of a slightly different type of granite and it appears to have been re-set with a large cement joint running around the top. There is a small indent above the hole in the middle of the panel.

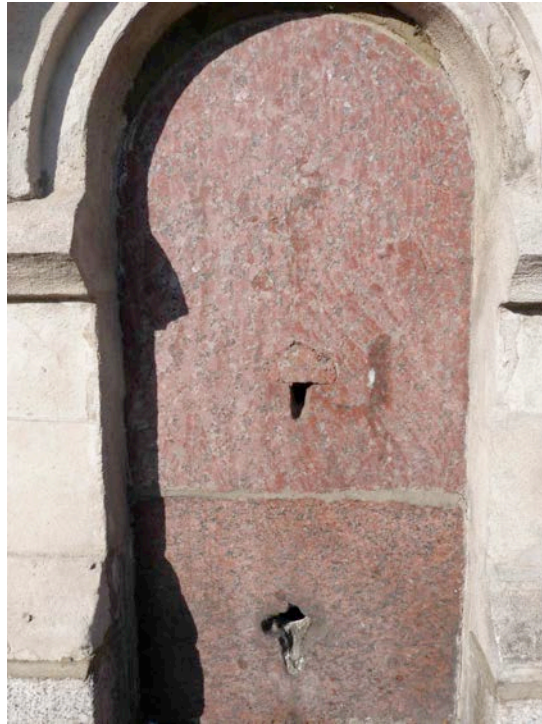


Fig 24: granite panel above basin on east elevation

The granite bowl on the west side (Fig 25) and the associated panel within the arch are in good condition with some staining at the intersection of the two. The retention of water within the basin is showed by the tide marks and staining on the inside of the shallow bowl.



Fig 25: upper granite basin on west elevation

The southern scrolled arch stone (Fig 26) (course D) is in fair condition but the detail is generally softened and it has an overall grey appearance due to microbiological growth in the surface. The cornice on the east side has decayed with one small section indented with new stone and other sections repaired with resin. The west elevation generally has sharper detail and the cornice has areas of mortar repair built up on an iron armature (see covermeter survey). The underside of the arch has significant sulphation (up to 10mm depth). The nose of the boar's head has broken off (possibly due to vandalism or removal of the pipe that used to be set within the mouth). There is some active decay to the mini scroll above the head.



Fig 26: arch on west elevation



Fig 27: interior of arch (north) showing sulphation



Fig 28: interior of arch (south) with sulphation

The northern scrolled arch stone (course D) has a much shellier texture and there is some disruption to the surface as a result of that. It generally has a grey appearance (due to microbiological growth) but the harder stone has meant that detail is better preserved. There are some repairs to the cornice on the east side and the cornice on the west side is extensively made up with mortar supported on a ferrous armature (see covermeter survey).



Fig 29: cornice made up with mortar on armature



Fig 30: cracks and repair to applied section of cornice on east elevation

The applied stones (maximum 50mm deep) on the east elevation are sound. There is a crack through the top of the arch that has previously been filled. There is also a cementitious repair to the top surface of the arch. The ashlar panels and cornice above are sound although there are cracks in the vertical joints between these stones and the host stone (Fig 31).

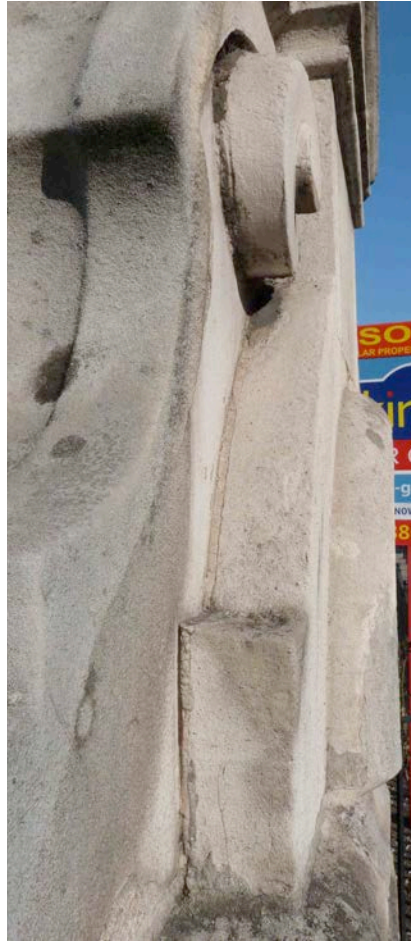


Fig 31: detail showing vertical joints between main stone and applied sections of arch on east elevation



Figs 32 and 33: view looking down on upper sections of course D (north on left, south on right)

The top stone (course E) is in fair condition. The stone is shelly in texture, particularly on the south end. The detail is generally worn; this is particularly evident on vulnerable edges of the cornice and at the ends of the southern pediment. The lack of detail on the cornice has caused uneven run-off of water that has led to the grey patch on the west elevation. The east elevation is better with only minor deterioration and repair to the arrises.



Fig 34: west side of pediment stone showing grey staining to stone

On the east side, there is the remnants of an inscription that reads 1901 although the legibility is severely compromised. There are the remains of mortar that suggest that the inscription was applied rather than incised. The horizontal joint on the east side is open and decayed. The plinth at the centre of the broken pediment has one pin sticking out of the top and a corresponding recess on the other side. Between the two is a pentagonal hole that goes down into the void where all the water mechanism was hidden. This may have held some sort of light.



Fig 35: detail of east side of pediment with remains of inscription



Fig 36: top of plinth of pediment showing old fixings and holes that may have been associated with lighting

Water supply and plumbing

Although only limited inspection was possible through the holes into the void within the structure, it seems as though all of the plumbing that used to feed water to it has been removed. The water source is beneath a manhole just to the south of the fountain although access beneath this was not possible because of the large buddleia bush growing next to and on top of it. It is thought this supply, by means of connected pipes fed the following:

- The trough. There is a pipe in the south end, the remains of which are visible within the granite. It is thought likely that this led to a tap or hand pump mounted on the edge of the granite trough.
- The basin at high level on the west elevation. This was fed by a water spout coming out from the Boar's head. The water must have poured into the basin and then, as there is no drain, must have overflowed into the trough. This cascade of water is reflected in the stone carving on either side. The control for this spout seems to have been accessed from the removable panel at the same height on the east elevation.
- The dog trough at low level on the east elevation. This has been filled with tarmac and debris so this could not be confirmed during the inspection.
- The main drinking fountain which would have had a spout and a means of turning the water in and off. It is likely that the lower hole in the granite panel was for the spout and the upper hole for the on/off mechanism.

There appear to be only two drains in the structure. One is the corroded iron overflow drain in the north end of the large trough. This may however be a later addition although it is likely that there was some sort of drain in this location. The other drain is in the back of the bowl on the east elevation. Both these drains seem to lead to the north end where there is a concrete cover. However this was not confirmed during the inspection. Figs 37 and 38 show a schematic version of what is thought to have been the arrangement of the plumbing.

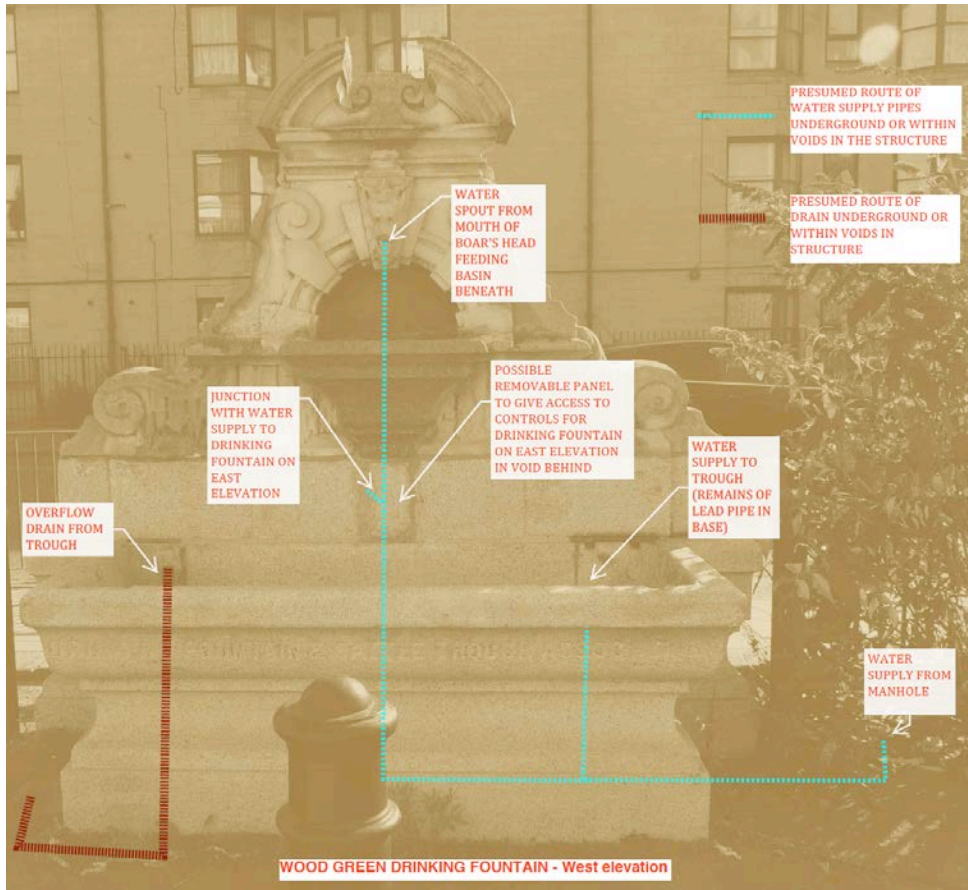


Fig 37: schematic drawing showing the water supply and drainage (west side)

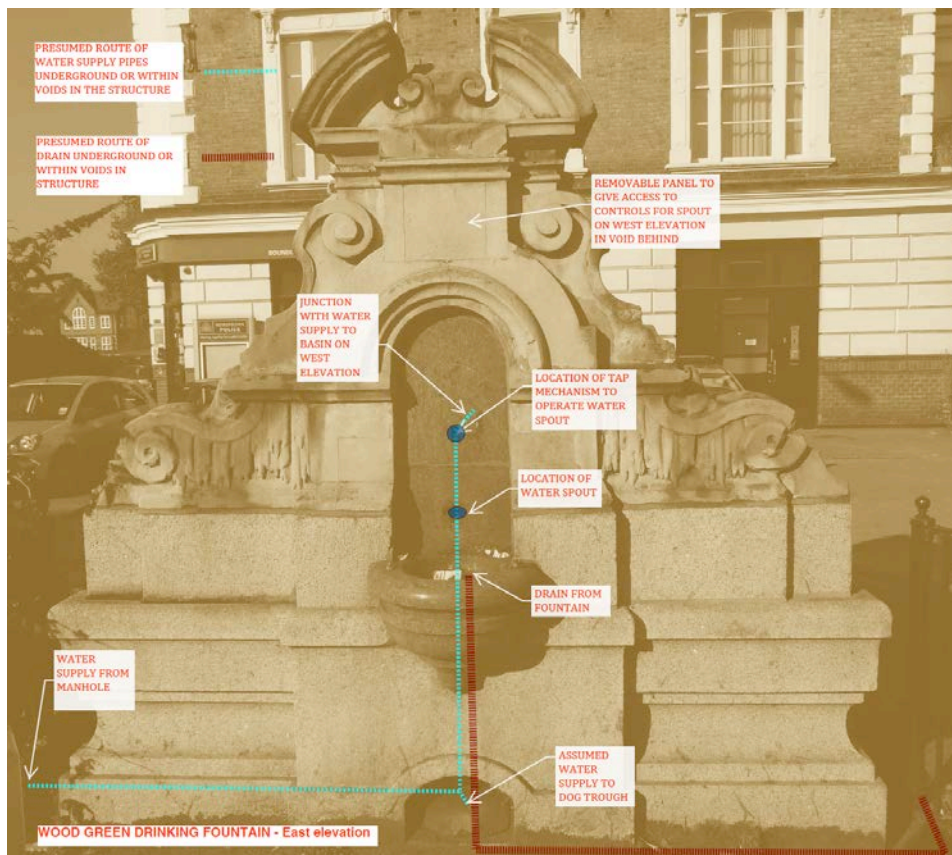


Fig 38: schematic drawing showing the water supply and drainage (east side)



Fig 39: view of drinking fountain from north-west showing drain cover next to the trough

Options for treatment (including setting and works to the water supply)

Although this Drinking Fountain has been put on the heritage at Risk register, this seems more likely to be due to the aura of neglect rather than as a result of the condition of the stonework which is generally not at all bad.

The current entry on the Heritage of London Trust states that: *'One of the finest of London's Victorian water fountains lies between High Road, Wood Green, and the 19th century pub (and 1960s music venue), the Fishmongers Arms..... Today it is in very poor condition and on the Heritage at Risk list. Its piping is rusted and expanding and the stonework is cracked and eroded.'*

Part of the problem is the current setting which has a pavement (with not a lot of pedestrian traffic) and busy road on one side and a rather neglected car park (part of the Police Training Centre) on the other. The railings run adjacent to the fountain on the east side offers some protection, as do the bollards on the west side.

A major part of the significance of the fountain is its location in front of the (now closed) public house ("The Fishmonger's Arms"). The removal of the fountain to another location would be practically difficult and expensive but also would sever the important link between the fountain and its *raison d'être*. There is however some benefit to be had by changing the setting so as to encourage the public to be aware of, and engage with, the fountain. This might best be accomplished by changing the layout of the railings so that they incorporated the current bollards (see Fig 40). Such a proposal would require input from the local authority. Whilst it would have the advantage of bringing the fountain more into the public domain, it might also encourage more misuse of the cattle trough.

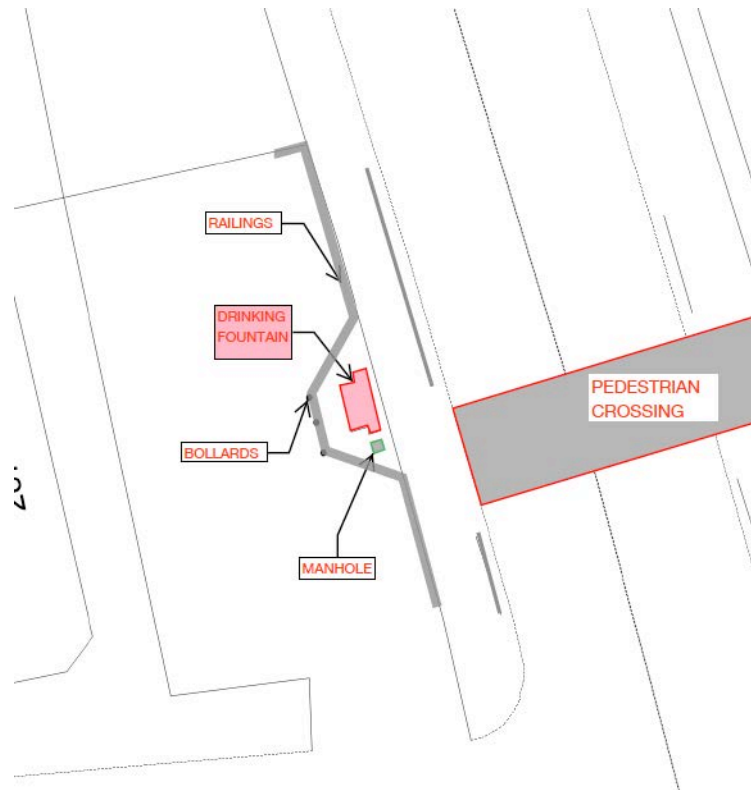


Fig 40: possible proposed re-routing of railings

It is interesting to note that just around the corner in Trinity Road is a tall obelisk that has the visible remnants of four drinking bowls - one on each face. This structure is dedicated to the memory of local philanthropist Catherine Smithies (1785-1877), who founded the Band of Mercy animal welfare group which later merged with the RSPCA. There are biblical references to "Temperance" on the stonework; none of the water spouts remains.

In terms of the condition of the stonework, while the erosion is certainly evident, it is by no means at a level that requires significant replacement of stone. The cracking that is mentioned is partly due to joints opening between elements of the original construction and partly due to previous interventions. None of these are significant for the survival of the fountain and all can be easily dealt with using fairly standard conservation measures. There is not really any alternative to such an approach – certainly not one that would receive listed building consent.

There have been a number of previous interventions and the majority of these have been well executed, particularly those that use a cementitious mortar that is a good match for Portland stone. Although in general, the use of cement mortars for limestone is not appropriate, there is no evidence that in this case it is causing damage to the adjacent stone; good conservation practice would suggest therefore that these earlier repairs should be retained.

The most striking issues are those relating to what is missing from the original fountain. These fall into two main areas – the plinth of the pediment and the

water supply and drainage.

In considering options for the first of these, it is not possible to make a proper judgment, as it is not known what the original design was. It may be that there is archive material available which could shed light on this but, in the absence of any evidence, the only option is to mitigate any further deterioration. This would best be accomplished by protection the holes on the sky-facing surface of the plinth by inserting a small stone cap over the holes; this would also help to protect the remaining fixing.

With regard to the plumbing, it would certainly be possible to access the interior of the fountain through the removable stone above the arch on the east side and through the central stone of course B on the west side. There would also need to be some excavation around the trough to insert new pipework between it and the manhole and drain. But the overriding decision is, however desirable it might be, whether this is a sustainable solution.

There are a number of problems associated with making this a working, or even partly working, fountain:

- Debris collecting in the basins (as it does at the moment)
- Pollution of standing water from constant traffic flow
- Vandalism of the spouts, taps, etc
- Water would attract pigeons so the water might become a health hazard
- Possible freeze/thaw effect on the stone

All of these could be overcome but it would require very regular (possibly daily) maintenance and it just does not seem likely that this is realistic.

There are two intermediate options that could be considered:

- The installation of the fountain furniture (spouts and taps). This would help to show the way in which the fountain works
- Installation of the plumbing so that it could be turned on for special occasions (open days) or for education purposes. This would require a clean supply to be available and connections would have to comply with the current regulations including for regular inspection.

This is an important structure and it fully deserves to be repaired and conserved and as The Heritage of London Trust states, the opportunity should be taken to tell the story of the Victorian philanthropists who provided drinking fountains all over London. Further investigation and consideration are needed to establish whether that can be done through reinstating part or all of the plumbing system.

Outline recommendations for conservation and repair

On the basis of the options available, the following works are recommended:

1) Landscaping/setting

- Cut back and remove all root systems of *Buddleia* adjacent to manhole on south end of fountain.
- Consider removing tarmacadam surface from around fountain and replacing with more porous surface (for example resin bound gravel) that helps water to drain away from around the structure. This would also provide a distinct surrounding for the fountain that would separate it from the more prosaic surroundings.
- Allow to install drain from area between current pavement and east elevation of fountain to prevent water accumulating in that space.

2) Cleaning

- Dry brush all surfaces to remove surface debris and dust
- Clean out all water basins, troughs and dog recess and dispose of collected material
- Clean all Portland surfaces with superheated water (160 degrees C) at low pressure (<2 bar) to remove surface dirt and microbiological accretions
- Allow for further general cleaning of Portland stone surface using dry steam
- Allow for poultice cleaning of sulphate crusts within arch on wets side.
- Treat all Portland surface with Algo biocide

3) Conservation and repair

- Rake out pointing to course B to a minimum depth of 20mm and replace with hydraulic lime mortar left recessed behind face. Mortar should be designed to be more visually sympathetic to the granite.
- Rake out horizontal joints on stones of course C
- Allow to consolidate decayed detail especially at ends of decorative 'drips' on carvings of west and east elevation
- Allow for mortar repairs to protect decayed areas of stone
- Rake out and repoint joints around granite panels
- Remove all resin repairs
- Allow to indent 4 No sections of moulded cornice (each stone not exceeding 150 x 75 x 100mm)
- Rake out and repoint joints between main stone and applied stone arch (east elevation)
- Rake out and repoint joint in stone adjacent to Boar's head keystone

- Allow to indent small section of carved stone to Boar's nose using archive photo if available.
- Using hydraulic lime mortar, fill voids in shelly stones
- Allow to insert new capping stone to pediment plinth; this should be the same size as the existing plinth in plan and stand maximum 60mm high. Allow to cut rebate for retained fixing.
- Allow to make up new cast bronze numbers to re-introduce the date '1901'

4) Plumbing

- Remove rusted overflow pipe and check that hole beneath drains away to prevent accumulation of water within trough.
- Clear out basin on east side and ensure that drain is working well to prevent accumulation of water within basin.
- Install small plates over holes in panel above basin. These might be designed so as to help with the interpretation and also allow use of the holes in the future should decisions be made to install the plumbing.

Specification for works

Schedule of works

Budget estimate