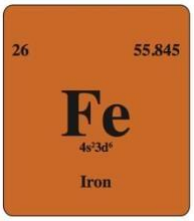

Ye Olde Wine Shoppe No 10 Swansea

Shop Lantern

Conservation Report

ACCREDITED MEMBER

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Table of Contents

Introduction

'Ye Olde Wine Shoppe No 10' is located at 10 Union Street, in the centre of Swansea. The ground floor is currently occupied by Holland & Barrett, health and wellness retailers. QI Refurb and Contracts Limited of Telford are contracted to carry out dilapidations work to the building. They have appointed the Historic Metalwork Conservation Company Ltd to prepare a condition report with conservation treatment recommendations for a late 19th Century decorative lantern originally suspended from the front of the building.

After delivery to a heritage workshop, Peter Meehan ACR, unpacked and inspected the lantern on the 9 November 2020. Details of its construction and condition were made. Some basic measurements were recorded, written notes made, and digital photographs taken.

Background Information

10 Union Street, Swansea

Little historical information could be found about Ye Olde Wine Shoppe that is located at 10 Union Street in Swansea. Originally the Tavern Pub, it was remodelled in an Arts & Crafts Style at the end of the 19th Century before being opened by the famous diva Madame Adina Patti, an Italian opera singer, in 1897. The Wine Shoppe was also well known for Boris the Bear. He was a dancing bear who travelled to Swansea in the 1920's and 30's as part of a Russian Circus. When he died he was stuffed and later put on display in the entrance of the pub until it closed. In the 1960's Jimi Hendrix was even photographed with Boris!

A historic image of 'Ye Older Wine `Shoppe'. The lantern can just be made out on the front.

A slightly later picture of the Wine Shoppe showing the lantern more clearly.

The Wine Shoppe closed in the late 1980's and was listed Grade II in 1987. The building was later taken over by Holland & Barrett, the health and wellness retailer. The ornate lantern to the front of the building dates to when it was given its Arts & Crafts makeover and retains all its original features. This is likely to have originally been a gas light, being converted to electricity in the 1920's.

Description of the Lantern

The lantern hangs on the front of the shop building supported on either side by forged iron tie rods. It is fixed to the building from behind via a painted steel tube that runs through the top rail of the lantern frame and out of the front face, to form a large scroll with repoussé heart details.

The original lantern removed from the building to a workshop for initial assessment.

A detail of the fixings holding the lantern to the wall of the building in Union Street, Swansea.

The lantern consists of a tapering, hexagonal iron frame down to 6 no. iron ball feet approx. 32" high (812mm). The ball feet are 2" in dia. (50mm). At the top, the hexagon measures approx. 22 ½" wide (571mm), at the bottom 12" wide (305mm). Each side of the frame is divided into four sections, which are filled with coloured and painted glass panels (See Appendix I). Sitting on top of the frame is a shaped iron covering known as a tent, that has a bell-cast roof shape. This covering is

approx. 15 ½" wide at its edges (394mm) and has a ragged hole at its top where a finial/chimney would originally have sat. This gives a current overall height of 43" (1,092mm). The base of the lantern frame is filled with a glass(?) panel currently obscured by accumulations of dirt and bird guano.

	
The bell-cast shaped iron covering to the top of the lantern. One of the two iron loops that connected to the tie rods.	Accumulations of dirt and bird guano inside the bottom of the lantern.

The original gas tube (?) runs through the top centre of the lantern frame and is approx. 1 ½" in dia.. There is an inverted T-piece at the centre with a hole present. A brass electrical light fitting with 3 no. incandescent light bulbs attached, hangs from an iron chain connected around the metal tube. Electrical wiring runs back through the T-piece hole and metal tube to the back of the lantern where the main wire has been cut.

The lantern frame is formed of equal angle iron uprights (set at 60°) approx. ¾" x ¾" (19 x 19mm). An iron rail approx. 2" wide (50mm) connects the tops of the uprights together, with a series of 5/8" wide (16mm) iron rails dividing each side into sections. The bottom rail is in the form of an iron angle approx. ½" x ½" (12 x 12mm). All the metalwork to the lantern is currently finished in a mid-green colour equivalent to XX.

	
The iron tube running through the lantern with an electrical fitting suspended by an iron chain.	The iron flat to the top of the lantern frame with a hole cut for the end of the iron tube.

Viewed from the front of the lantern, there is a hinged door to the left-hand side giving access inside. This is currently secured shut with a nut and bolt fitting. Each of the six sides is glazed from the inside. The top and bottom rows are filled with alternate, green and orange glass panes with a patterned & textured surface. The two centre rows are filled with a white glass flash-coloured in a dark red on the outside face to reveal words and images that repeat on each half of the lantern (See Appendix I below): the name of the building/pub and pictures of devils and wine glasses. The panes measure approx. as follows:

- Top coloured row: 11 ½" (10") wide by 6 ½" high: 292 (254) x 165mm
- 2nd Row: 10" (8") wide by 8" high: 254 (203) x 203mm
- 3rd Row: 8" (7") wide by 6" high: 203 (178) x 152mm
- Bottom coloured row: 7" (6") wide by 5" high: 178 (152) x 127mm

The glass panes are secured with lead strips folded around the outside of the upper and lower glazing bars and over the glass edges. They are sealed with a glazing putty as well. The horizontal glazing bars to the door section were in the form of iron 'T' pieces.

<table>
<tr><td>  </td><td> 
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<tr><td>One of the textured orange glass panes to the top row of the lantern frame.</td><td>An image of the decorative white glass pieces flashed with dark red on the outside.</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>The lead clips securing the glass panes in position.</td><td>One of the 'T' glazing bars to the access door. Note also the putty fixing the glass panes.</td></tr>
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Lantern Condition

General Comments

The lantern was found to be in a generally poor condition. At some point in the past it appears to have suffered a physical impact resulting in damage to the front foot and the pushing back of the bottom of the lantern from its upright hanging position. Inspection of the lantern showed that this had caused the iron support tube to move out of position, passing through the top corner of one of the window openings. The lantern was left leaning forward and twisted slightly to one side.

	
The front of the Holland & Barrett building showing the lantern no longer hanging straight.	Failing paint coatings visible to one of the heart decorative elements.

All iron-based metals are generally unstable and will readily corrode when exposed to water and oxygen in the air. However, wrought and cast iron tend to be more resistant to deterioration than mild steel. Paint coatings are applied to provide a physical barrier to corrosive agents as well as to provide decorative detail. However, these tend to have a limited life span. When first applied they retain a degree of flexibility and can cope with movement in the metalwork due to use and temperature changes. Light (made up of particles known as photons) contains energy and when it strikes a surface this energy is transferred into the material it comes into contact with. Over time this begins to cause damage to the paint layers on an object's surface. The organic or synthetic materials that form the paint coatings break down as molecular chains are damaged. The coatings start to become brittle and are no longer able to respond to movements in the object. This leads to cracks forming at the joints in components and small defects in the surface of the paint layers. The paint deterioration manifests itself as changes to the colour and often a chalking of the surface. As it deteriorates further, moisture and oxygen can penetrate to the iron surface allowing corrosion processes to start. The process of deterioration then noticeably starts and will begin to accelerate as rust formation lifts up the adjacent paint.

The lantern was dirty and the current paint coatings had mostly failed with patches of rust staining also present. Inside, the base of the lantern had a thick layer of dirt and bird guano present, as well as the two detached panes of original glass. Outside, the most recent top coat layers were peeling from the surface exposing earlier paint layers or the base metal surface. As a result, moisture and oxygen had penetrated through to the iron metal causing it to corrode and develop rust layers lifting the paint coatings from the surface in a number of places. Some lantern parts had been affected more severely than others, in particular the lantern top covering.

Lantern frame

The lantern frame remained largely complete but there were a number of areas of damage and heavy corrosion present. The paint coatings to the top and bottom rails had almost completely failed, coming away from the iron surface. The top rail around the frame had become distorted where the iron tube passed through it, with splits present at the back edge. The top of the iron upright angle had become detached from the top rail and was now sitting outside rather than inside.

	
Splits to the frame top rail and failure of the angle upright connection now sitting in front of the rail.	An image of the front leg now bent out of shape. Note the rust present to the adjacent bottom rail section.

The two iron fixing rings fitted to the top rail, that connect to the tie bars, were present and appeared secure. The front leg to the base of the frame remained complete but was bent back upon itself. There were areas of deterioration to the angled bottom rail. Several sections had corroded heavily with paint loses and a build-up of rust layers. Generally, the intermediate glazing bars were in a fair condition with paint coatings remaining to the outside surfaces.

It was only possible to view the inside of the lantern through the two openings in the frame where the glass panes were missing. The glazing bar surfaces appeared rusty as if they had no paint coatings applied. There was also a layer of dirt to the surface of most of the glass panes. The iron support tube had a build-up of rust layers to its surface. The same was true of the iron chain supporting the brass light fitting.

Lantern Top:

The lantern top covering (tent) was in the poorest condition. Much of the paint remaining on the outer surface was peeling and flaking. This thin iron sheet material had corroded to excess along its outer edges where it over sailed the top edges of the lantern frame. The iron reinforcing wire, around which the edge of the top covering was folded, had also corroded and broken in a number of places. This covering had been left with a number of holes to the metal sheet. Viewed inside, it appeared that the top covering had an internal lining (or the remains of an earlier top?) that had a galvanised finish. This zinc coating had been lost around the edges of each inner section exposing the iron surface to corrosion beneath. As a result, a layer of rust had formed, particularly along the corner folds. The top centre part of the covering was missing with a ragged hole present. Originally, there would have been a chimney to vent the lantern when gas or decorative finial present (a historic photograph appears to show a pair of spheres, one on top of the other).

	
The edges of the top covering showing the corrosion and metal losses present. Note also the physical damage around the edges.	A view inside of the roof covering showing the remaining zinc coating and the rust layers present where it has been lost.

Large Decorative Scroll

The large decorative, tubular scroll section to the top of the lantern front was in a fair condition. The paint layers had begun to fail. The lower repoussé decorative heart detail had one side missing. This appeared to be an old loss as the inner face of the remaining half had been painted.

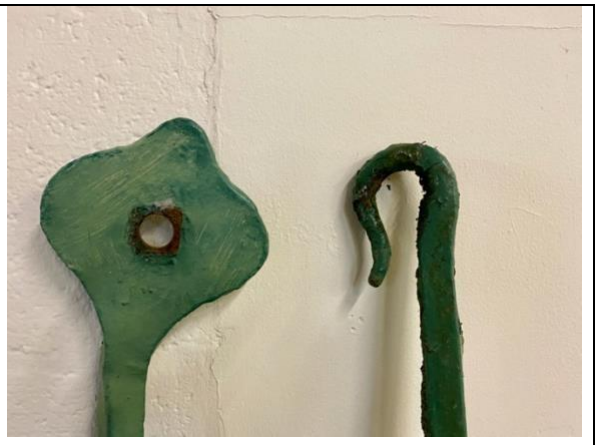
Glass Panes

All the original glass panes were found to still be present but two had become detached and fallen (or placed) inside the lantern. One was complete apart from a small corner section missing (orange pane). The other green pane was broken in half. All the remaining glass pieces were well fixed to the lantern frame. The glass pieces were found to be dirty, particularly to their inside faces. A number were cracked, and this is detailed in the attached drawing in Appendix I below.

	
The detached textured orange glass pane showing dirt present and the missing corner.	A view of the glass panes inside the lantern showing the dirt layers present.

Tie Rods

The two tie rods were complete and still straight despite the earlier damage to the lantern. The original paint layers present were failing and coming away from the metal surface.

	
One of the two repoussé hearts showing the missing side.	The ends of the tie rods with the fixing plate at one end and the hook that fixed to the lantern, at the other.

Recommended Conservation Treatment

Introduction

Where possible it is good conservation practice to retain the original parts of historic objects and repair them if damaged or broken. The lantern retains most of its original features with modifications having been limited to its conversion to electric lighting. Although not yet confirmed, it is likely that the lantern is made of mild steel, it having come into common use from after 1870. The earlier material, wrought iron, was rapidly replaced after this date.

It is recommended that parts are repaired with the same material as they were made. Only sections of metal that have wasted to greater than 50% should be replaced or where the structural integrity of the lantern has been compromised. Otherwise wasted sections should be cut back to sound metal and new pieces attached by careful welding or brazing as appropriate. Similarly, where parts are missing these should only be replaced where it helps with the interpretation of the object; in particular the missing half to the decorative heart. It is important that a written and photograph record is made of the conservation treatments carried out.

The following treatment programme is recommended:

Lantern Body:

- The lantern should be photographed prior to commencing the treatment works.
- A small number of paint samples are to be taken to help identify the painting history and earlier colours present.
- Dismantle the lantern into its main component parts:
    - Remove the top covering(s) by carefully cutting the remaining corroded internal metal brackets that connect it to the top of the lantern frame

  - Carefully remove the existing brass light fitting and set aside along with its hanging chain
  - Remove the iron tube that supported the lantern when hung from the building, complete with decorative scroll section to one end
  - Label, record and carefully remove the glass panes from inside the lantern frame by cutting back the remaining putty and unfolding the lead fixing strips
  - Wrap the glass panes in acid-free tissue and bubble wrap before placing in a suitable storage container to await cleaning and repair
  - Remove the lantern access door by unscrewing the nut and bolt and carefully removing the two hinges
- Clean the lantern frame, access door, top covering, iron tube and scroll detail to remove old paint layers and corrosion back to a sound surface:
  - Use a heat gun to soften the remaining paint layers and gently scrape from the metal surface
  - Any remaining stubborn paint layers are to be removed using a conservation paint stripper
  - Label and carefully remove the lead clips that helped secure the glass panes
  - Remaining rust layers are to be manually removed back to a sound surface using scrappers and Scotchbrite abrasive pads
  - An assessment of the condition of the remaining metal is to be made recording and identifying those areas that need repair or replacement
- Repair the lantern frame:
  - Cut back heavily wasted sections to sound metal and weld or braze in new steel pieces to match the existing section sizes
  - Straighten and repair the cracks to the top rail
  - Re-attach the rear frame upright to the top rail making sure it sits inside the frame section
  - Straighten the bent front foot section by carefully heating and manipulating by hand back to its original position
  - Straighten the slightly twisted leg to the left side of the lantern
- Clean the lantern tie rods and fixing bolts back to a sound metal surface by careful abrasive blast cleaning.
- Repair the top covering piece:
  - Make a cardboard template of the bottom edge of the covering to one section to ensure the original shape is retained when repaired
  - Remove the remaining sections of core wire and assess to see if they can be re-used
  - Cut back the corroded edges of the top covering to a sound edge
  - Make up new edge repair pieces in steel sheet rolling the bottom edge over to allow the core wire to be re-fitted, and attach to the sound edges by careful brazing or soldering
  - Solder a repair piece to the top centre hole to leave a small regular hole where the original chimney or finial would have fitted
  - Using the available historical evidence make up a new chimney or finial to the correct proportions with spun metal pieces and secure by soldering. These would probably originally been made from copper (This detail will be checked with an external light specialist)

    - Remove the remaining rust layers to the inside top cover section retaining the surviving galvanised layer
- Repair the damaged heart detail to the large front scroll by making a new heart piece from copper, using the original as a template. Solder the two halves together and fit back onto the scroll section.
- Remaining compact rust layers are to be treated with a rust converter to stabilise them; Loctite 7500 rust converter is recommended.
- All the iron parts are to be protected with a high quality paint system to provide long lasting protection.
- All cleaned, stabilised and repaired iron surfaces are to be protected with two coats of a high quality alkyd metal primer applied by brushing to the manufacturer's minimum recommended dry film thickness (dft). Sherwin-Williams Kem-Kromik 489 zinc phosphate primer is recommended.
- All primed iron surfaces are to be painted with 1 no coat of alkyd undercoat to the manufacturer's minimum dft. Sherwin-Williams Kem-Kromik 671 undercoat is recommended.
- The primed and undercoated iron lantern parts are to be finished with 2 – 3 no. coats of an alkyd oil gloss paint to an agreed standard paint colour based on the results of the paint analysis. Sherwin-Williams Kem-Kromik 530 gloss is recommended.

Glass Panes

All the surviving original glass panes are to be retained and broken ones repaired.

- Glass panes are to be cleaned using deionised water with a little added non-ionic detergent (TritonX100) to remove dirt accumulations, before careful drying with paper towels.
- Broken glass panes are to be repaired using a water white, conservation grade adhesive. Sylmasta Hxtal Epoxy Resin adhesive is recommended.

It is understood that the lighting to the lantern is to be upgraded as part of the conservation works. The details of this are not known at present but may require the fabrication of a suitable fixing bracket for fitting inside the lantern frame.

Once the all the components have been repaired and painted the lantern is to be re-assembled.

- The lantern door is to be re-fitted using the original hinges. It is recommended that a wing nut or similar fixing be used to secure the lantern door when closed.
- The iron support tube is to be re-fitted through the original fixing holes to the lantern frame.
- Fit the new lighting fixing bracket.
- Thread all necessary electrical wiring into the lantern through the existing tube.
- Glass panes are to be carefully re-fitted in their original locations using the lead fixing strips and a suitable glazing putty. Hodgsons Metal Casement Putty is recommended.
- New steel brackets to hold the top covering are to be made to match the originals and fully protected using the specified paint coating system.
- The repaired top covering (including new finial detail) is to be re-fixed to the top of the new lantern frame brackets, assumed to be by riveting.

A section of iron tube remains in situ in the wall of the building where the lantern body was connected. This will require cleaning, treating and repainting using the specified paint system

before the lantern is re-fitted on site. All subsequent electrical wiring and testing of the lantern should be carried out by a qualified electrician.

Appendices

Appendix I – Photo drawings

USL-11-001 Glass pane details

USL-11-002 Glass pane condition

Peter Meehan ACR

10 November 2020

Before	After