# For Whom the Bell Tolls - The Whitechapel Bell Factory, London: Forging Sustainability with Authenticity

# Introduction

In British culture, especially the capital city London, bells are rung to keep time, they are rung to celebrate, they are rung to commemorate, and they are rung as a warning. The sound of church bells is a fundamental part of a quintessentially English village scene and bells ring out from our cities' cathedrals and our town churches. London is the home of one of our biggest, most famous and admired bell, Big Ben, which is housed in the Elizabeth Clock Tower in the City of Westminster on The Houses of Parliament. Such is the cultural importance of bells they are depicted in traditional folk songs, such as "Oranges and Lemons" (see appendix A) and literature, such as 'For Whom the Bell Tolls' (see appendix B). It is also said that only those born within the sound of St-Mary-Le-Bow Bell can truly call themselves a "cockney" Londoner (Lavender, 2020). But the fate of the bell is now endangered, as church populations decline, and many church buildings are redeveloped and repurposed, with this comes the reduced need for bell manufacturing and repair. This dissertation considers the redevelopment of Whitechapel Bell Foundry which is situated in the borough of Tower Hamlets, Whitechapel, East London. 'The Bell Foundry', on 32 & 34 Whitechapel Road is a Grade II* listed building of 'Architectural Interest' which was listed under the Listed Building and Conservation Areas Act 1990.

One potential way to inform the issues of remodelling such a sensitive building would be to consider architectural theories, such as Machado's *Old Building as Palimpsest* (1976), which would highlight the need for clarity in the buildings past usage and narratives through the creation of a 'toolkit' of resources, such as historic site plans, old and new photographs. Machado admits that, at the time of his writing, there was 'little prescriptive information', around re-modelling, and as such, each building should be evaluated on a case-by-case basis. Machado also writes about the difficulties of 'form/form' problems, meaning the inherent conflict in vernaculars when a building's usage category is changed. Other theories, written around the same period are, 'A Pattern Language' and 'The Timeless Way of Building' by Alexander (1977; 1979). These books discuss the importance of


Fig. 1. Exterior (2012)

architectural cues, particularly those that were found to be forgotten by modernism. These architectural cues are the same cues that become apparent and risk being lost when a building's usage category is changed.

Bell making, is a form of heavy manufacturing, involving casting molten metal, and is comparable to the casting of engine blocks in the Ford automotive manufacturing facility in Dagenham. The Whitechapel Bell Foundry is known to have been in operation since 1570, though it is reckoned by (Historic England, 2017), that the foundry is an amalgamation of three foundry's in the 13th century. The original site is believed to be on Essex Court, now named Gunthorpe Street. The foundry moved to its current site in the mid 17th century. The new foundry site had a frontage on the main Whitechapel Road, where a quintessential Georgian house was built. In 1818, among other changes, the polite shop front was added to the left of the façade and a former gateway was demolished to make way for three terraced workers cottages, among other additions. Between 1844 and 1968 there was a succession of managers who proceeded over the foundry, who continually updated tooling (University College London, 2016). The row of workers cottages was remodelled in the late 19th century to house a steam engine that was required for new techniques. The other notable changes are

that in 1979 the rebuilding of the workshop at the rear took place, having been destroyed in the Second World War. The adjoined and later residence, no2 Fieldgate, has since been absorbed by the Georgian house fronting the road, with the ground floor joining the shop.

Since the foundry's closure in 2017, and controversial sale to Raycliffe Whitechapel LLP the foundry's ancient and important place in London's culture has been brought to the public's attention. It is worth noting that the sale of the Whitechapel Bell Foundry had some unusual circumstances, in that there was a sub-sale, within the same day (Lowe & Skene Catling, 2018). The way forward now is not clear cut, as many different individuals, communities and interested parties hold diverse views about the site. The current owners view is for the building to be remodelled into a boutique hotel and café, workspace, cultural centre for the foundry and bike storage (Planning portal, 2017). Whereas



Fig. 2. View of Proposed Boutique Hotel (2019)

others including the historian Dan Cruickshank and 10,000 signatures of a petition, together with the Resurrection Factum Foundation (a not-for-profit organisation regarding technology and the preservation of cultural heritage deemed to be at risk) and The United Kingdom Historic Building Preservation Trust, concur that the site should have "the continuation of a viable Foundry with the resultant employment, skills retention, life and vitality" (Factum Arte, 2018). Ultimately whatever way forward the redevelopment would need to have regard to its listed building status and current building regulations and standards of sustainable building practice.

In terms of considering a way forward for the remodelling of the Foundry, with regard to interested parties' diverse views on the subject, the fundamental question is: should this building be retained as an authentic working foundry in its current location and if not and remodelling is inevitable, then how can the building retain some authenticity? Specifically, can the rich oral history through display of manufacturing still exist or which artisan workers should be offered the space? In short, can a modus vivendi be found for the ex-workers, new workers, their families, the public, policy makers and profiteers? In order to explore these questions this dissertation considers the geographical location of the foundry site, including who lived and worked there, and discusses whether it is in any way feasible for a historical building such as this to redevelop and translate vernaculars sucessfully. Also considered is whether the redeveloped building can become carbon neutral, let alone carbon positive in terms of sustainability.


# Method

**Research Design**
In order to answer the questions above, a thorough analysis of this building could include a Toolkit of old photographs, newspaper articles, period plans, maps, books, journal papers around the use of such spaces, as well as current site photographs and planning information. However this dissertation limits its analysis to: the Map Descriptive of London Poverty, Open Street Map & Google Maps & Street View, Historic Buildings and Monuments Commission for England and Planning Applications Online Portal and photographs of the building and site.

**Maps Comparison**
**Map Descriptive of London Poverty 1898-99**
Charles Booth was described as a man who was
"profoundly concerned by contemporary and social
problems' and who 'developed a sense of responsibility to
the poor' (Booth Museum, 2016). He analysed the census
returns and found them to be unsatisfactory and wanted to
undertake an inquiry into the lives and wealth distribution
of the workers of London. The Map Descriptive of
London Poverty 1898-99, coloured the streets to
indicate levels of poverty. Sheet 5 'East Central District' (Booth, 2016) covers the area of the
Bell Foundry and is utilised henceforth, unless stated otherwise (see Appendix C).

Fig. 3.  Whitechapel (1899)

**Open Street Map & Google Maps & Street View**
Included in the digitalised online resource of Booth's
Descriptive of London Poverty 1898-99, is an underlay of a
contemporary map of London, which is free and editable, called
OpenStreetMap, created by volunteers on an open-content
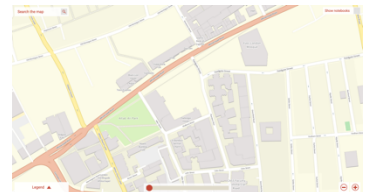license, as well as Google Maps.

Fig. 4.  Whitechapel (2020)

**Historic Buildings and Monuments Commission for England**
This is the UK public body established by the National Heritage Act, 1983 that protects the
English Built environment and its history. The public body is mostly funded by the
Department for Digital, Culture, Media and Sport. They hold listings of buildings,
monuments parks and battlefields, which are accessible to the public as an archive of
photographs, documents and plans.

**Planning Applications Online Portal**
In the UK, the Town and Country Planning Act of 1947, meant that any change in land or
buildings, might be subject to needing approval. Minor alterations have automatic rights, and
are considered 'permitted development', thus not requiring planning permission. When
planning permission is required, an application needs to be submitted to the local authorities.
Planning decisions should be in accordance with the local development plan for the area, with
some areas being subject to greater scrutiny and restrictions: Conservation Areas and
National Parks are examples. Buildings of particular interest can be subject to listed building
status, which will mean they are under increased scrutiny and restrictions in a planning
process. Currently planning applications are available for public access via the planning
portal.


# Findings

Using the toolkit of resources described above, in exploring the question regarding the
geographical location of the foundry site, including who lived and worked there, it was found
that until recently, at least, the Foundry was within the sound of Bow Bells. However due to
traffic noise and environmental noise the acoustic range of the bells has shrunk (Solon,
2012). The Booth map shows us that the Foundry was built near the Church of Matfelon
which was founded in 1250 and linked to nearby Spitalfields Priory and what would become
todays London Hospital. In the 12th – 14th century it appears this area, being just outside

Bishopsgate and the old central London wall, included a burial ground for around 1-2% of Londoners who were mostly adolescence and young men (Harward et al, 2019:205).

By the time of Booths survey in 1888-89, also noted was a large immigrant non-English-speaking population, including Polish, Russian and Jewish, many of which were socialists and the latter of which were said to had 'not integrated well' (BOOTH/B/350, p. 43). Today using Google Street view, it can be found that not only is the East London Mosque directly adjacent to the foundry, many local shop signs are written in Bengali script, and the St Mary Matfelton Church ground (the building having now been lost to fire and then bombing in the war) has been renamed "Altab Ali Park" following a tragic racially motivated murder in 1978 (LondonRemembers, 2020).

The adjourning parish of Spitalfields, where the Priory area was situated also included an immigrant population, in particular the Huguenots who in the 15 century came from France to escape religious persecution, however they brought their own "weaving industry" with them (Huguenots of Spitalfields, 2020). Whereas it appears that in Whitechapel around the bell foundry, there is a long history of the dirtier larger scale industries such as "tanneries, breweries, and foundries", at least established by the late 18th century (Historic England, 2017).

The Booth map does not label the Bell Foundry itself, even though the history of the foundry states that it had moved to its current site on Whitechapel Road, from nearby Gunthorpe Street, in 1840 (Historic England, 2017). However, it does classify the main roads, such as Whitechapel Road, as "middle class well to do" and the specific area where the bell foundry was situated was labelled "mixed communities". The area around the foundry was classified as mostly "mixed", ranging from 'middle class' to 'poor'; notably with little of the 'lowest class'. The areas of Whitechapel which were shown as "poorer" and "semi-criminal" were mainly littered *off* the main thoroughfare and not next to the foundry. These slums were noted for immigrant accommodation and were overcrowded lodging houses and limited sanitation, which spread disease. The earlier Booth Map of 1889 shows significantly more slums than the later map, due to The Artisans' and Laborious' Improvement Act of 1875 (The Artisans' and Laborious' Improvement Act, 1875) which bought and demolished slums.

This historically mixed demographic around the foundry fits with what can be seen on google street view today, in that it includes late brutalist buildings (including the East London Mosque), and further down the Whitechapel Road, mid-Victorian terraces, with shopfronts fronting the high street, and some occupying whole blocks behind, together with high-rise high-end glass'n steel offices and luxury apartments, with these currently undergoing more construction. This visual finding is congruent with the geo-demographic 'profile' Tower Hamlets made public, using Experian's Mosaic Public Sector Data for Tower Hamlets, which classifies the population of Whitechapel, in 2016, into types based on socio-economic and lifestyle characteristics. This shows that 30% were "ethnically diverse" on low income, whereas 36% were "metro high-flyers or penthouse chic" who were mostly young professionals on high income (Tower Hamlets Borough Council, 2016).

In terms of Whitechapel social history regarding crime, the area has been known for high crime rates, with notorious criminals such as Jack the Ripper, which concluded in 1888 and more recently the Cray twin gangers in 1960's. The former being particularly significant because it related to the need for slum clearance as a way of removing the crime ridden small alleys off the main streets which were difficult to police. Google maps shows overall there are significantly less alleys and small roads today, around the foundry, compared to on the Booth map for this reason. Notably, crime rates now show lower levels for Whitechapel as compared to other London boroughs, such as Mayfair and St James, Strand and Whitehall, and Covent Garden, as recorded for January 2018 by the Met Police (Retox Magazine, 2019).



Fig. 5. Evocation of Whitechapel (1872)

Moving on to exploring the bell foundry in terms of other issues such as planning, the bell foundry is a Grade II* listed building of 'architectural interest', consisting of buildings spanning 1446 m$^2$. One specific reason for the listing was because it included 300 years of domestic and industrial buildings, including the owner's residence. It is also listed due to 'historical interest', because it continues a manufacturing industry from the Medieval period located elsewhere, to include famous castings such as Big Ben and the Liberty Bell. It is also listed due to its 'interiors' relating to fixtures and fittings spanning the late 18$^{th}$ to early 19$^{th}$ century. Also subject to the listing are bell foundry equipment and timber framing. Lastly the building's listing regards 'rarity', because this is one of only two remaining bell foundries in England (Historic England, 2020).

On the planning online portal, it can be seen that the application in 2019 for the potential redevelopment of the foundry site involves acquiring additional land and the massing of the new build due to become a boutique hotel and flexible office suites, taking place almost entirely on the new plot. The existing unlisted workshop is planned to be demolished and interconnects the two strips of land for new development. The listed part of the complex appears largely unchanged, with foundry use and new art studios, workspaces and a cafe, with the Georgian fronted residence set to become work rooms for artisans.

In terms of sustainability, the proposed foundry development included submitting an energy assessment under the methodology, to 'be lean' (use less energy), 'be clean' (use low carbon technologies) and be green (use renewable energy). This Energy Strategy Statement suggested that the remodelling would use upgraded fabric to the roof, triple glassing, heat recovery systems, LED lighting and gas fired boilers, which would result in a carbon saving of 48 percent compared to the previous building. While this is a significant improvement, it could be argued that it is set against the fact of being compared to a working foundry (a building that had a significant carbon output). Old photographs of the building and site clearly show how heavy the manufacturing was and therefore comparatively speaking any redevelopments would have likely shown a net reduction in carbon output. That said, it is of course recognised that the ability of any building to truly achieve carbon positivity, let alone an old bell foundry, in our current built environment is rare.



Fig. 6. A bell is commissioned by London's Lord Mayor is cast (2002)

# Discussion

Overall this dissertation has sought to consider the re-development of the Whitechapel Bell Foundry in terms of authenticity and sustainability by using a toolkit of resources including: the Map Descriptive of London Poverty, Open Street Map and Google Maps (with Street View), as well as the Historic Buildings and Monuments Commission for England, Planning Applications Online Portal and photographs of the building and site. The fundamental question was whether this building should be retained as an authentic working foundry in its current location. In answer, sadly the reality is that there is little demand for large bell manufacturing such to keep this business commercially viable. Until such a time when large bells are required again or when some yet unforeseen object requires manufacturing which can utilise the process, the core issue may be that the relevant machinery, oral history and skilled craftmanship must not be lost, but this foundry location itself cannot be retained. Also, whilst it may be that, until recently at least, Whitechapel Bell Foundry enjoyed the alcalde of being the oldest manufactory in Britain (Historic England, 2017), this being in contrast to there being so many foundries operating at the time of the Booth Map that they were not significant enough to be named, even so it does not follow that bell manufacturing should retain the same location.

The history of the foundry itself demonstrates its origins from the merger of other foundries at different sites. Indeed the constant redevelopment of the current site is in keeping with the need to accommodate larger machinery, together with trends such as slum clearance, and the impact of the motorcar widening roads meaning fewer small roads and alleys today. In this way, Baynes Road, which is associated with the foundry site being the name of a former owner (the name plaque being set into the foundry wall and reading "This is Baynes Street 1766') in Fieldgate Street, is an example of a smaller back road or alley where a house owned by Edward Baynes became defunct and disappeared of the map (factum-Arte, 2020). Thus it is then that this foundry site has not been static or without redevelopment historically, such that it could not move again.

In terms of this current site it is also of great relevance that along with the historic buildings, some of which are listed, there is an area of adjoining land and an unremarkable 1970's building which are commercially desirable for development. So having established the view that the foundry in terms of large bell manufacturing is no longer viable on this site, we can now review potential ideas for the redevelopment and address the question as to whether the building can retain some authenticity? For example, the entire site could become a standard private office or residential development, or previous houses on the site could be returned to residential again, alternatively the site could be part retained in relation to the foundry as museum, artisan space, shops, café and then redevelop the rest. If the latter, then the question would remain as to how the rich oral history through display of manufacturing could still exist or which artisan workers should be offered the space?

If we now turn to ideas in Palimpsest to consider these options and we note that remodelling is to rewrite or "scape again" (Machado, 1976) in order to alter the formal features of a building, but not the buildings function. Or in more extreme cases to "re-functionalise" the building, whilst still acknowledging the past. Thus focusing on form/form and not form/function (e.g. merely maximising usable space). Also we recognise that patterns risk being lost when a building's usage category is changed (Alexander, 1977 & 1979). Applied to the Bell Foundry therefore, the proposal by the



Fig. 7. Memorial Plaques in The Bell Foundry workshop honouring former workers

Factum Foundation and The United Kingdom Historic Building Preservation Trust would seem ideal. They advocate reemploying workers, developing apprenticeships and training for bell making and tuning in partnership with the Prince's Trust and other state sector bodies, creating artisans studios, apprentice accommodation and genuinely affordable housing and resourcing a public archive and research centre. They call on the current building owners to restore the Foundry, or to sell it so that others might restore it instead. They state "the building and its multiple, complex, human histories are embedded in the wider story of London, dating back to Elizabethan England, and reaching even further, to 13th century bell founding" (Factum Foundation, 2018). However, whilst this is admirable, in the absence of the foundry's sale and a suitable purchaser, the reality is that this is not feasible.

Together with the buildings listed status, it can be understood that the proposed plans from the current owners was considered a viable and appropriate way forward, even following planning objections and a public enquiry, because at least they include a cultural centre for the foundry, as well as a mid-rise boutique hotel, café and workspace (Tower Hamlets Bourgh Council, 2017; Spitalfields Life, 2020). The culture centre envisaged included retention of small scale bell manufacturing. By retaining a cultural centre in the listed buildings, the current owners plans do adhere to guidance from the National Planning Policy Framework which states that "Local planning authorities should identify and assess the particular significance of any heritage asset...They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal." (Factum Foundation, 2018). As such the complaints that the buildings proposed redevelopment amounted to "cultural asset stripping" were not upheld by the planning authority (Re-Form, 2018).

However, the cultural centre is controversial, because it is located behind glass adjoining the café, thus provoking the criticism that the small-scale bell making foundry is no more than "entertainment of coffee drinkers" (Brooke, 2020). Indeed 84% of the actual café space is in an area of significance where the bells are were originally manufactured (Re-Form, 2018). This potentially insensitive re-modelling runs the risk of offending the foundry workers. Also this links to the theory of Karl Marx's theme of workers alienation (McLellan, 1975), because unlike nearby Spitalfields which had mostly backroom industry where wealth could be individually accrued; the workforce of Whitechapel, did not have either the power or ownership of the means to increase their power and therefore their wealth. This is because Spitalfields backroom industry was a trade of fine silks and lace which became what was colloquially referred to as the 'rag trade' (spoken history) (i.e., the unbranded end



Fig. 8. Proposed café visualisation (2020)

of the fashion industry). As such it could be argued that the foundry workers may have been exploited in the past and are more evidently at risk of exploitation now.

Furthermore, this reflects an unwelcome trend towards gentrification of Whitechapel, that does not reflect or respect the mixed diversity of the past. We know the area had diversity in the past because, for example, a historic burial ground nearby had adolescence and young men disproportionately located there, suggestive of a population of "transient migrant workers" (Harward, et al, 2007) which would tie in with Booths map later finding that the area around the foundry ranged mostly from 'middle class' to 'poor' categories reflecting the community being labourers. In more recent history, the area was known for the Jewish and Bangladeshi community. Additionally, the Booth map categorised the area as "well to do/middle class", which reflected that the main Whitechapel Road, unlike as any main road might be considered today, was a desirable locale where higher wealth properties were built. We can see the evidence for this in the foundry buildings of no 32-34 Whitechapel Road which were large Georgian houses. Whereas the house joined to these, but behind and those further down Fieldgate Street were often more modest. Today, the diversity of the area also includes those who are living in recently constructed high-end apartments. So, for the redevelopment of the Bell Foundry to create a gentrified café for patrons to relax and eat, whilst the foundry workers are on display, could represent a trend towards gentrification which seems divisive rather than diverse.

There have been previous examples of heritage museums that include the public being able to view traditional craft people at work, such as blacksmiths in The Wealdon Down Open Air Museum in Sussex. But in the foundry case, there appears to be something particularly insensitive about putting the foundry workers behind glass in regard to cafe. Though the glass partition obviously has merit as a safety measure, it could be seen to objectify the workers and create a barrier so there is not the same opportunity to speak with them or hear their authentic voices in real time and in return to offer them full attention and interest.

Similarly, in terms of whether a mid-rise boutique hotel is an appropriate redevelopment of the site, today google maps shows Whitechapel area does have mixed buildings including: historic buildings, commercial properties, office spaces, houses and high-end apartments which appear to have largely replaced the earlier manufacturing industry and as such a boutique hotel would not be out of place. However again it would be symbolic of an apparent trend towards gentrification, that does not reflect the mixed diversity of the past. Furthermore, and importantly, is the issue of who should use and benefit from the section of the foundry, which is planned as 'workrooms for artisans'. Whilst here it is noted that it does at least seem appropriate that the proposed plans do include preference to local people being given at 45% affordable workspace (Tower Hamlets Bourgh Council, 2020).

Additionally, whilst the proposed plans do provide an opportunity to apply 'best practice' sustainable design, that balances the energy and environmental performance required by the London Plan, together with the heritage, cultural and economic needs of the existing foundry. It could be argued that some of the suggested improvements are mere greenwashing measures, by which is meant the retroactive appearance of sustainability (Kellert, 2015). For example the installation of a bike storage facility across multiple storeys of the basement, since little information is given about how this will be utilised and by whom.

In comparing the predicament, the architect faces re-developing the Whitechapel Bell Foundry with similar schemes nearby, one good example would be the London Docklands.

This saw industrial buildings re-developed through the 1980's and though they mostly retained some of the buildings outer vernaculars, they largely became exclusive high-end apartments (Roberts, 1984). Another example of a more individual manufacturing building being remodelled nearby is the confectionary Company Trebor in Forest Gate, who sold their Art Deco factory in 1981, which was then converted into 65 apartments (Walker, 2014). In this case it could be said again that, the resultant apartments were exclusive and specifically the internal remodelling did not refer particularly to its host building, with the main concession to the past being that they had to retain the company name on the outside of the building. Considering these examples then, it could be argued that the proposed scheme for The Whitechapel Bell Foundry on some levels is superior in that at least it offers some public access space and retains some historic features, and an albeit controversial 'cultural centre'. However, the same overall criticism applies in that it regards the gentrification of an area which was originally a significantly more diverse community.

## Limitations of the dissertation

In using Booth's maps of 1889 and 1898-99 information from School Board visitors and the observations of London Policemen were used and these sources are objective, therefore, not entirely reliable. Furthermore, whilst we have information about the wealth and ethnicity around the area, we can only speculate about the wealth of the workers, or who they were, and therefore what their core values were. More in dept knowledge of the foundry workers would have been useful, in order to more accurately comment on the extent to which their values should have been taken into account in the foundry's proposed remodelling.

Additionally, whilst this dissertation has been able to consider maps, planning and photographs in relation to the foundry, this limited toolkit would have been improved by the ability to interview a wider range of interested parties; ex-workers, new workers, their families, the public, policy makers and profiteers. In particular it would have been very interesting to ask for comment from all types of ex-employees for their valuable input. Issues of time restraint and the sensitivities of such a controversial remodelling of a building, means that any attempt to illicit oral views was not feasible, and outside the scope of this dissertation.

## Conclusion

Overall this dissertation has sought to consider the re-development of the Whitechapel Bell Foundry in terms of authenticity and sustainability. To return to the dissertation title, "For Whom the Bell Tolls", this is a book and poem about how no one person's perspective is primary, and all people are connected. This relates to The Whitechapel Bell Foundry as a historic building in that it is likely that no one view for its future is correct. The planners, the supporters, the objectors will have a different, but valid view. However, when considering Palimpsest, we could argue that remodelling must be "a product of the past" a 'repository' and 'moral force' (Machado, 1976) and with this in mind, what is being proposed for the Whitechapel Bell Foundry, is probably the best that can be hoped for overall and is not unreasonable, given that, and thanks to current listed building status, much of the building history is going to be preserved.

We must however be aware of the trend in gentrification of Whitechapel such that its community diversity may be lost. 'What Booth's poverty maps ultimately showed is a London where rich and poor lived right next door to each other: in that sense, at least, today's London is no different (Fraser, 2012). Thus, in these sensitive times, when there is social unrest and a global pandemic it can be argued that the redevelopment needs to avoid insensitive divisions of the workers and patrons, particularly in relation to the café and cultural centre layout.

In "For Whom the Bell Tolls" there is also the theme that, 'no man is an island' and in the end we all will die. This links to the ideas of both Palimpsest and A Pattern Language, which seeks to facilitate the past to live on and here in Britain we could say that not all buildings will die, thanks to their listed building status. As such, unlike when the poem enquires "For whom the bell tolls….?" the answer in regard to The Whitechapel Bell Foundry, is that it should never *entirely* "toll for thee".



Fig. 9.  Whitechapel Bell Foundry (taken around 1950)

# Appendixes

## Appendix A

*Oranges and Lemons*: A Traditional folk song

Oranges and lemons,
Say the bells of St. Clement's.

You owe me five farthings,
Say the bells of St. Martin's.

When will you pay me?
Say the bells at Old Bailey.

When I grow rich,
Say the bells at Shoreditch.

When will that be?
Say the bells of Stepney.

I do not know,
Says the great bell at Bow.

## Appendix B

Extract of *Devotions upon Emergent Occasions* [For Whom the Bell Tolls] by John Donne

No man is an island, entire of itself; every man is a piece of the continent, a part of the main; if a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as if a manor of thy friend's or of thine own were; any man's death diminishes me, because I am involved in mankind, and therefore never send to know for whom the bell tolls; it tolls for thee.

## Appendix C

Details of the Booth Maps of London

The Descriptive Map of London Poverty (1889), used information from School Board Visitors. The first sheet covered the East-End, with the map being extended in 1891 to cover 4 other sheets of surrounding areas. While the second map in 1898-1899 was a series encompassing 12 maps, which used observations by London Policemen. Collectively the original maps are known as the 'Descriptive Map of London 1889' and are held in the Museum of London and digitally. The second series of 12 maps, are collectively called Map Descriptive of London Poverty 1898-99; this piece of cartography has been digitalised as one

complete map. Along with the maps, are 450 notebooks used to make up the enquiry also interviewed factory owners, and union representatives in their homes, as well as ministers of religion and the congregation. The Maps classify poverty, by colour, into 7 categories from Lowest Class Vicious, semi-criminal represented in the colour black, to upper middle and upper classes, wealthy, represented in the colour yellow. By the second survey, Booth had extended the classification.

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