

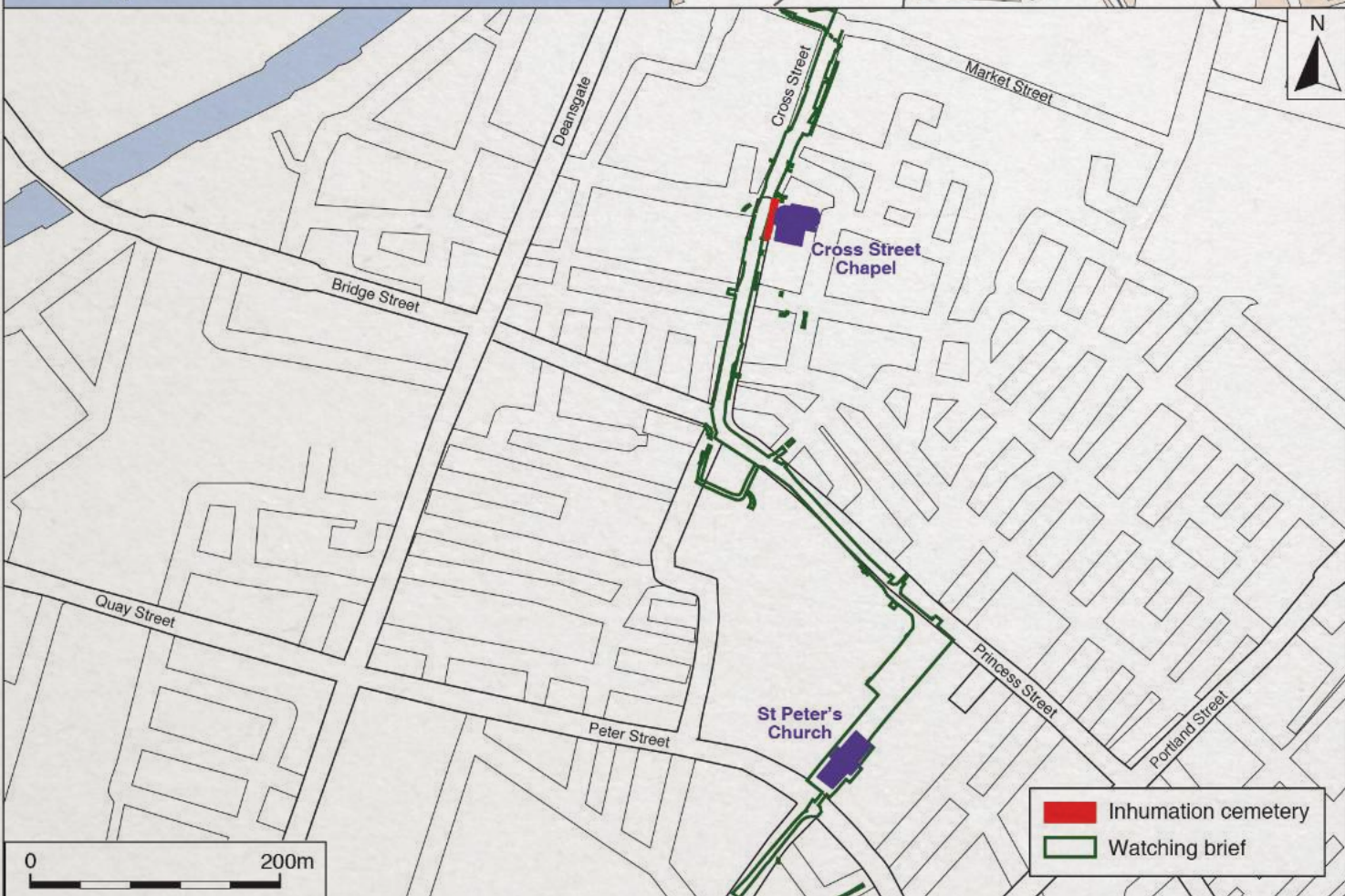
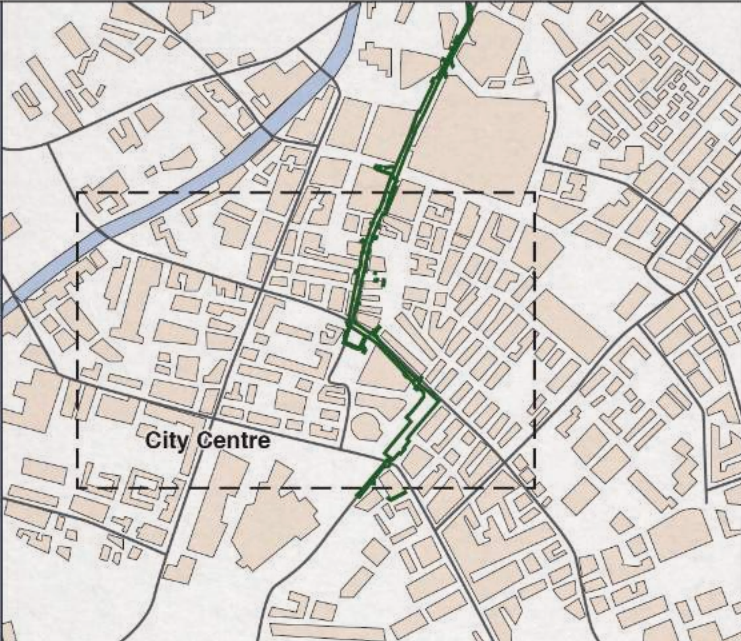


**GREATER  
MANCHESTER'S  
PAST REVEALED  
.29.**



**LIFE AND DEATH IN MANCHESTER:  
EXCAVATIONS ALONG THE SECOND CITY CROSSING**









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*This publication is dedicated to the memory of Reverend Jane Barraclough (1963-2014), minister at Cross Street Chapel at the start of the project who very kindly provided access to archival material, and all those buried in the Cross Street Chapel graveyard.*



# FOREWORD

Manchester's growth during the eighteenth and nineteenth centuries was central to the industrial revolution that saw the emergence of Britain as a dominant global trading nation. Innovation in industry, transportation, manufacturing and commerce brought changing working practices, population growth and new patterns of densely packed housing for workers. The often challenging conditions of early industrial Manchester also gave impetus to social and political reform movements whose influence helped to change and improve life and politics in Britain. Present day Manchester continues to be a scene of remarkable innovation, investment and redevelopment. Each new development site potentially exposes buried evidence of the earlier industrial revolution. On a regular basis archaeologists engage in investigating and recording the physical remains of Manchester's complex and important industrial past.

Transport for Greater Manchester's 'Second City Crossing Project' presented archaeologists with the challenge of investigating and recording a wide variety of evidence including two important sites of burial – the crypt of St Peter's Church and the graveyard of Cross Street Chapel. This project illustrates how modern archaeology works. Where possible, archaeologists try to leave archaeological remains undisturbed. Where this proves impossible and buried remains cannot be preserved in the ground, archaeology has developed approaches to excavating any vulnerable and significant evidence to provide a detailed record for posterity. At St. Peter's it was possible, through detailed investigation, recording and cooperation with the developer, to ensure that the human remains within the crypt could be left undisturbed by the development. Today, those burials lie safely protected in the crypt preserved beneath the new tram interchange in St Peter's Square. At Cross Street the development necessitated the careful excavation of a significant portion of the Chapel's graveyard. The meticulous excavation and post-excavation work undertaken by the team at CFA Archaeology Ltd is summarised in this volume. What emerges is a detailed and important picture of these sites and of some of the individuals who lived and died in the midst of Manchester's industrial and social revolution.

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# INTRODUCTION

A programme of archaeological work was carried out between 2011 and 2016 prior to and during expansion works for the Manchester Metrolink, the light rail tram system that serves Greater Manchester. The Second City Crossing (2CC) is a new spur route through Manchester City Centre, designed to improve capacity and alleviate congestion on the existing routes.

The 2CC works comprised the laying of 1.3km of new tram track between St Peter's Square and Victoria Station. The route connects St Peter's Square with Princess Street, Albert Square, Cross Street and Corporation Street, with a new station at Exchange Square. St Peter's Square was altered for the new line, with the Manchester Cenotaph being re-sited to accommodate the new infrastructure. Construction began in 2014, and the 2CC route opened in 2017.

The work was carried out by MPT, a joint venture between Laing O'Rourke, VolkerRail and Thales. The project was funded and managed by Transport for Greater Manchester (TfGM).

CFA Archaeology Ltd was involved with the 2CC from the very early stages of the project. Background research of the route was carried out and the scope of the archaeological works was agreed with the Greater Manchester Archaeological Advisory Service (GMAAS) in order to discharge the archaeological conditions on the planning consent.

The archaeological work undertaken included watching briefs along the route of the new tram line during the diversion of utilities, the laying of tram tracks, the installation of other infrastructure such as overhead lines, and the construction of two new tram stops. It also included excavation and recording at St Peter's Church and crypt during work to ensure its preservation, and the exhumation of burials from a graveyard associated with the Unitarian Chapel on Cross Street. This booklet focuses on St Peter's and Cross Street and describes some of the key findings from the watching briefs.



## THE ROLE OF GMAAS

The project was monitored by Andrew Myers and Norman Redhead of the Greater Manchester Archaeological Advisory Service (GMAAS). Richard Knightley of Manchester Environmental Health also monitored the exhumation works on behalf of Manchester City Council.

All work was undertaken in accordance with a licence from the Ministry of Justice and a project design agreed with the GMAAS.



*Archaeologists undertaking watching briefs during construction works*



## THE SECOND CITY CROSSING WATCHING BRIEFS

Watching briefs were conducted between January 2014 and July 2016, during the excavations for utility diversions and installation of tram track.

A number of utility companies worked simultaneously to expose the old services, divert them, and lay new ducts and pipes along the tramline route. This provided an opportunity to see a snapshot of what lay below the ground across Manchester city centre. Cooperation and communication between the contractors and the archaeologists was essential; the archaeological team worked closely with the contractors to deal with archaeological features so as to minimise disruption and stoppages to the work. Due to the complications of a busy city centre, some work had to be undertaken outside of normal hours, including evening work and night work with archaeologists working in shifts.

Following the completion of the service diversions, the existing tarmac road surface was broken up along the route of the new track, revealing large areas of the previous granite sett road surface, particularly along Cross Street and Princess Street, together with rails of the 1902 Manchester Corporation Electric tramway. Evidence of the earlier, narrower-gauge horse-drawn tramlines was only seen in a small area of surface lying



*Old tramlines exposed at the junction of Princess Street and Albert Square, in front of Manchester Town Hall*

underneath the electric tramway, but cut up lengths of the rails were found redeposited below the later tramlines.

Once the previous road surfaces had been removed, all further excavation to install the tram track was monitored by the archaeologists in order to record any archaeological remains.



A range of features were recorded along the route. These included truncated brick walls, foundation walls, cellars (which occasionally included cellar light openings) and other remnants of previous buildings. Other masonry features included wells, an extensive network of redundant brick and stone drainage culverts, larger storm drains and associated cisterns, together with circular access shafts.

Some of these structural remains could be correlated with buildings dating from the late eighteenth century onwards, corresponding with the growth of Manchester as an important city at the birth of the Industrial Revolution. Amongst the buildings identified were: part of Manchester's first Town Hall on King Street; the headquarters of the Anti-Corn Law League (Newall's Building) on the corner of Market Street and Cross Street; an early incarnation of the Royal Exchange on Cross Street; and the substantial remains of the crypt of St Peter's Church.



*A brick well on Corporation Street*



*A cellar on the site of the Mosley Street Buildings*





*Remains found on the site of Newalls Building and the Royal Exchange Portico on Cross Street*

## HYDRAULIC POWER SYSTEM

Noteworthy amongst the frequent services encountered were the distinctive cast iron pipes of Manchester's 1894 Hydraulic Power System. These were recognisable due to the thickness of the pipes and the substantial collared joints manufactured to withstand the high water pressure used to power Manchester's mill machinery at its peak in the 1920s.

The Hydraulic Power System was installed to provide a cleaner and more compact alternative to steam engines within the warehouses of central Manchester. Twelve miles of pipes were laid below the streets of the city in works carried out by the Manchester Corporation.

The energy supplied by the original pumping station on Whitworth Street West was fed to 247 machines throughout the city. These were mainly cotton baling presses in Manchester's numerous warehouses, but it was also used in the operation of lifts, cranes, and even in the winding of the Town Hall clock. The system was in huge demand and by the 1930s the network had 35 miles of pipes supplying power to 2400 machines with additional pumping stations at Pott Street and Water Street, now home to the People's History Museum.

Although the Hydraulic Power System's use declined with the growing popularity of electricity from the 1930s, the network was maintained through to the late 1960s when the remaining 120 customers were advised that the pumps would be turned off in 1972.



## ST PETER'S CHURCH

A stone cross at the centre of St Peter's Square marks the site of St Peter's Church, demolished to ground level in 1907, leaving the underlying crypt and burials intact. A plan drawn up by Manchester Corporation surveyors in 1906, immediately prior to the demolition, detailed the internal layout of the church crypt and recorded the position of all of the coffins within the vaults before they were covered in a protective layer of concrete prior to demolition of the church.

Initial watching briefs on trial pits confirmed that the crypt and interred human remains within its vaults still survived beneath St Peter's Square. In order to preserve these remains, it was agreed that a protective concrete slab would sit on top of the reduced church superstructure. The work required for this was monitored by the archaeologists in three phases.



*An image of St Peter's Church from 1900 (copyright Manchester Libraries, Information and Archives, Manchester City Council)*



## HISTORY OF THE CHURCH

St Peter's Church was constructed between 1788 and 1794, on land that was then on the edge of Manchester, but would soon be engulfed by the spread of Manchester's fast growing population which it was built to serve. The church was designed in a Classical Style by the architect James Wyatt. The church seated 550 people and included an extensive network of burial vaults below the main sanctuary. By 1906 the parish population had dropped dramatically from 3000 to 300 as people moved out of the centre to more desirable suburbs, making the upkeep of the building difficult. In light of this, and to allow greater access for transportation through the square, it was decided that the church should close and be demolished. In accordance with the 1906 Manchester Churches Act of Parliament, the Manchester Corporation purchased the church and associated land from the Diocese for the sum of £20,000.

Local papers recorded the discoveries of the workmen who had been tasked with the demolition of the church in 1907. They were said to have found a honeycomb of passages that was '*practically a catacomb*' with coffins on shelves, piled up in every available space so that they were sitting inches from the floor of the church above. A tablet found at this time confirmed Wyatt as the architect and noted the laying of the foundation stone in 1788. The columns from the church were transported to

Knutsford where they still sit in the courtyard of the former King's Coffee House, located next to the Gaskell Memorial Tower.

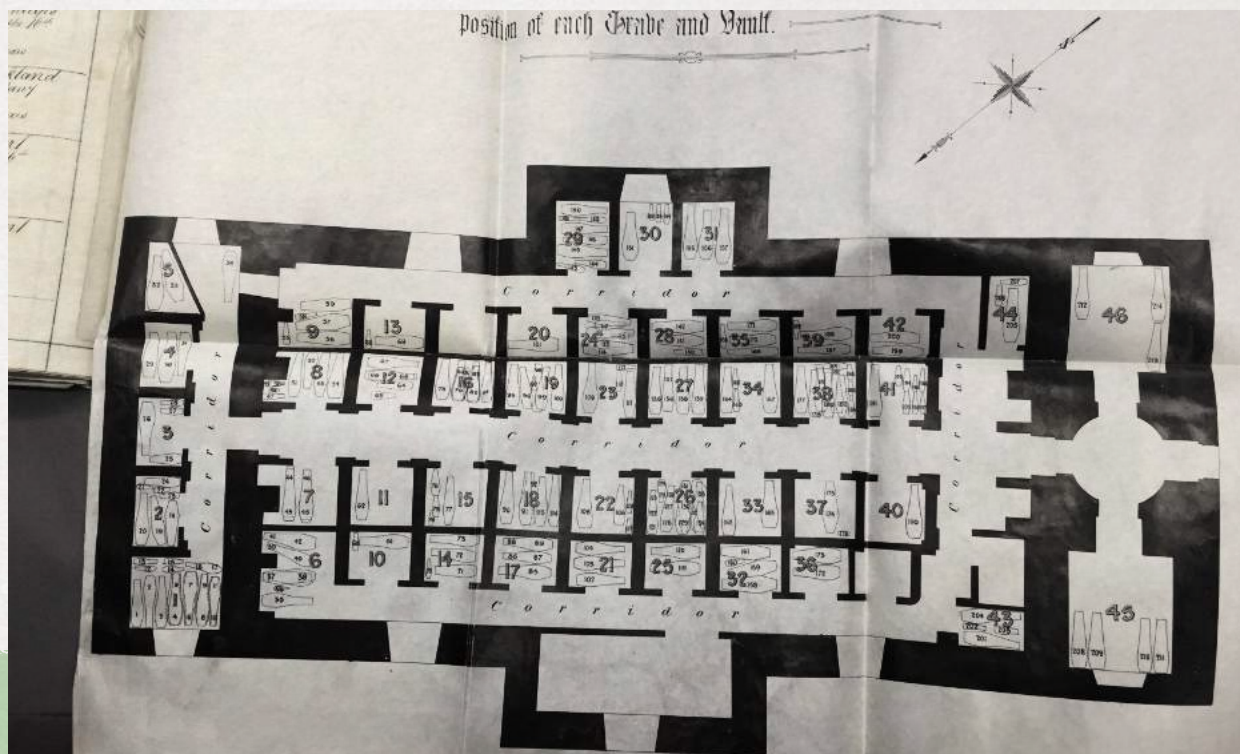


*A photograph taken inside during the demolition of St Peter's church in 1907, with the vaults visible below the floor (copyright Manchester Libraries, Information and Archives, Manchester City Council)*



## BURIAL VAULTS

The 1906 plan of the vaults produced by the City Surveyor Office recorded who was interred below St Peter's Church. Lintel stones from the crypts also named the congregation members who originally purchased the vault space and in what year.



*The 1906 City Surveyor Office plan of the vaults at St Peter's Church (original held in Manchester Central Library)*

Notable names who owned burial vaults included the first Rector of the church, the Reverend Samuel Hall, who was one of the first to secure a family vault in 1797. Records show that he buried two of his teenage daughters, Mary and Sarah Hall, within weeks of each other in the vault in 1797 before he was laid to rest at the age of 65 in 1813. Hall, formerly a curate of St Ann's Church, was refused election as a Fellow of the Collegiate Church as he routinely made allowances to nonconformists in his services. Samuel Hall was a guardian of Thomas De Quincey, author of *Confessions of an English Opium Eater*, who was born at 86 Cross Street.





*An open vault, photographed in 1906 (copyright Manchester Libraries, Information and Archives, Manchester City Council)*

Another well-known Manchester figure, Hugh Hornby Birley, also owned a vault. He was a leading Manchester mill owner who built the Cambridge Mill in the Chorlton-on-Medlock area near Oxford Road in 1814. He went on to

become a business associate of the renowned Scottish chemist Charles Macintosh. At Manchester Gas Works, they utilised the waste by-products to develop waterproof fabrics. The resulting rubberised cotton was manufactured in the Birley and Co. factory, now known as the Macintosh Mill, located on Cambridge Street. Birley was held in high esteem by Manchester's conservative elite as an industrialist, a local magistrate and Second Officer-in-charge of the Manchester and Salford Yeomanry. He was also said to have a deep hatred of liberal reformers, having used the Yeomanry on a number of occasions to quell protests at his own mills and to disperse weavers marching from Manchester to Ashton-under-Lyne.

He was to gain greater notoriety after the events of 16th August 1819 at what would



*Vault lintel belonging to Hugh Hornby Birley, found during the excavation work*



become known as the Peterloo massacre. A large crowd of parliamentary reformers from across Manchester and the surrounding towns had gathered for a public meeting near St Peter's Church on St Peter's Field. The local magistrates had already expressed their opposition and were prepared to put down any perceived disorder. As the chair of the Radicals, Henry Hunt, began to address the crowd at 1.40pm, Captain Hugh Hornby Birley was ordered to lead his Yeomanry Cavalry to disperse the crowd and serve an arrest warrant for Hunt. Accounts following the massacre suggest that the yeomanry recruits were raw and untrained, perhaps even half-drunk from the morning's preparations. When they entered the crowd with their swords drawn, they were soon entangled and in disarray. The Hussars and The Cheshire Yeomanry were called in to aid Captain Birley's men and were eventually able to arrest Hunt and eleven other speakers. Eighteen people died at Peterloo with a further 600-700 injured; most suffered wounds caused by Yeomanry sabres and hoofs. The names of the fallen are commemorated within a new public memorial, unveiled in 2019 and designed by Jeremy Deller, which is located near the spot of the tragic events of that day at the junction of Lower Mosley Street and Windmill Street.

Hugh Hornby Birley was afterward considered one of the main people to blame for the events at Peterloo and he was vilified by the Mancunian people on the street.

However, he was cleared of any unlawful actions in court and was even promoted to the rank of Major for his service that day. He went on to become the first President of the Manchester Chamber of Commerce. He died on 31st July 1845 and was buried along with his wife Cecily within sight of St Peter's Field, in his family vault in St Peter's Church.



*Henry Hunt addressing the crowd at St Peter's Field (from Cassell's Illustrated History of England Vol. VI, 1864)*



## ARCHAEOLOGICAL WORK

The early 20th century demolition deposits at St Peter's Church were removed to reveal the remaining walls of the crypt, with care taken to preserve the integrity of all upstanding walls and structures. The structural remains were fully recorded and once this was complete the upstanding walls were reduced, under supervision, to the required level, ensuring that the original concrete capping protecting the coffins below was not compromised in any way.



*Aerial view of the foundations and crypt of St Peter's Church during the excavation*



*The exposed foundations and crypt being recorded by archaeologists during the excavation*

Excavation was also undertaken to clear the central aisle of the crypt between the rows of the vaults before the installation of piles to support the new protective slab.



The exposed brick foundations of the church measured 47m long, with two side transepts in the middle. A set of entrance steps into the crypt were also recorded at the front south-west end of the church, with the ornamental stonework matching contemporary photographs. The positions of the supporting columns for the roof were recorded along with the brick pillars and arches which allowed light to enter the crypt, with the design forming protective window wells into which a variety of Edwardian and Victorian refuse had accumulated, including glass bottles, shoes, a hat and ‘Penny Lick’ ice cream glasses.

Ice cream became available to the Victorian public through a network of mostly Italian mobile street vendors from the 1850s onwards, following new simplified techniques in ice cream making and the importation of ice from Norway and Canada. With the cone yet to be invented, the ice cream was sold in small shallow glasses for a penny. These were often made of thick glass to make the scoop look bigger than it was and to allow them to be reused multiple times, often with little or no cleaning. The density of Penny Licks found in one of the church’s window wells suggested that there may have been an ice cream seller with a regular pitch at that location, with broken glasses being thrown down into the church.



*Steps into St Peter's crypt*



*Broken Penny Lick glasses found within the window well at St Peter's Church*



The majority of the vaults within the crypt were arranged in four rows located directly below what would have been the nave of the church. This arrangement was also visible in photographs taken during the demolition of the church. A more irregular distribution of smaller vaults was uncovered along the north-east side. Differences between the vaults were noted, including size, orientation, and alterations such as internal divisions.

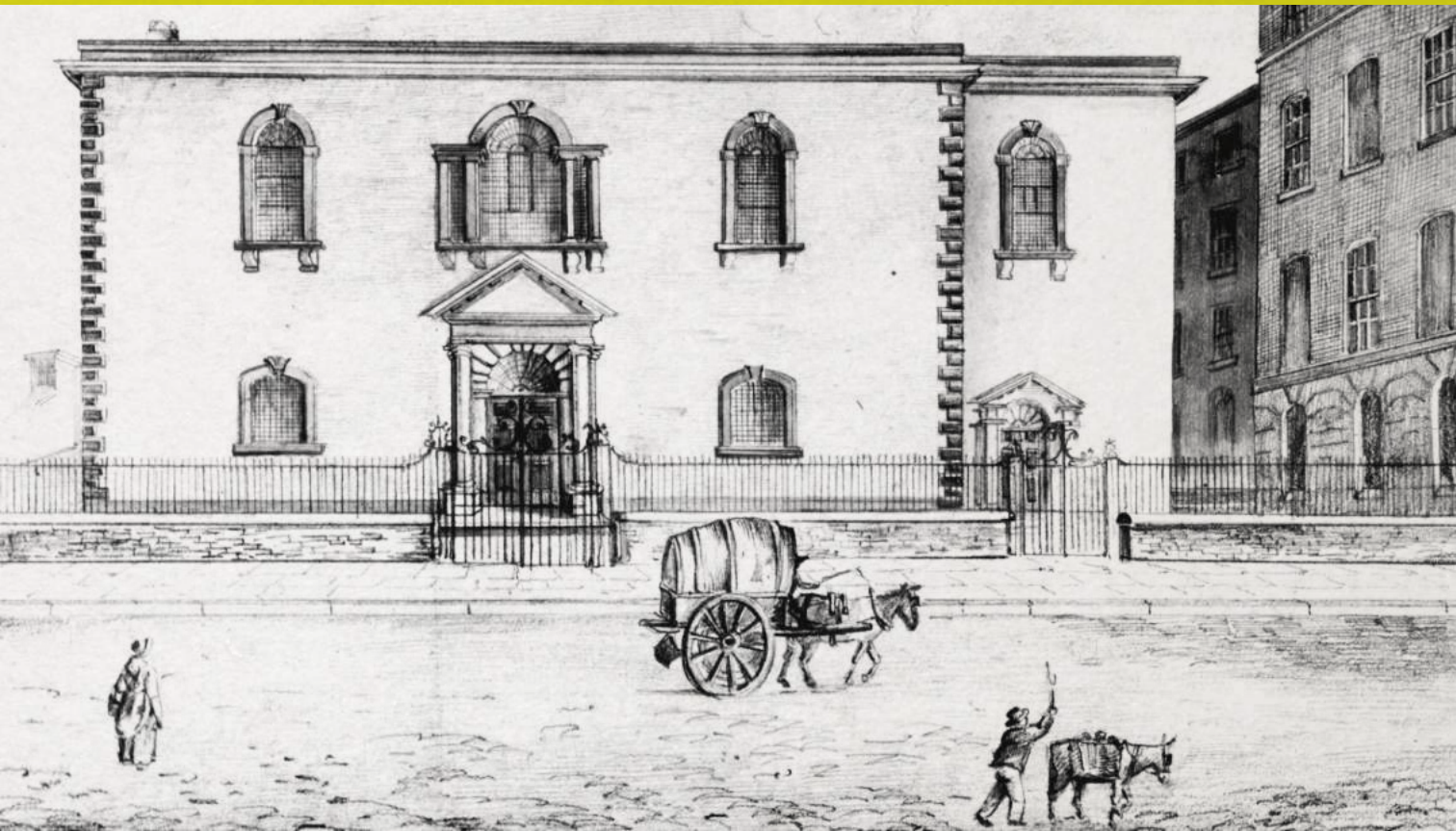
Stone vault lintels, bearing the names and dates of vault owners, were present in the demolition backfill. Their positions were recorded, then they were removed for cleaning and recording, and were later reburied on top of their original vault prior to construction of the new protective slab.



*Hugh Hornby Birley's vault with the lintel name stone inside*



## HISTORY OF CROSS STREET CHAPEL



*Sketch of Cross Street Chapel dating to 1835, by M.P. Calvert (copyright Manchester Libraries, Information and Archives, Manchester City Council)*

There has been a chapel on Cross Street since 1693. First known as the ‘*Dissenter’s Meeting House*’, it was built to accommodate Reverend Henry Newcome and his congregation on what was then the edge of Manchester in an area known as Pool Fold. Reverend Newcome had complained that their current meeting place was too small: ‘*not room for the poor, who have souls, and some of the better rank would come if they could have seats*’. The meeting house was almost destroyed in 1714 during a Jacobite uprising but Parliament gave the chapel the sum of £1500 for repairs. It was enlarged in 1737 and again in 1788. In 1761 the chapel became recognised as a Unitarian Meeting House.



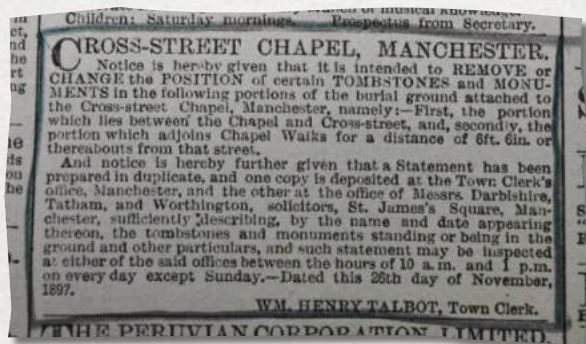
One of the earliest surviving maps showing the Chapel is the Thomas Baker map of 1854, which is, however, a reproduction of a town map from 1782 drawn by William Green which showed the 'Dissenter's Chapel'. The Baker map shows the layout of the chapel, family burial plots, and a school. The graveyard is shown to surround the chapel and is divided between an upper graveyard to the east, and a lower graveyard to the north and west. The lower graveyard fronted on to Cross Street and is shown with two parallel rows of gravestones between the chapel and a the churchyard wall. The majority of the graves were depicted on an east-to-west orientation. Only grave stones between the west door of the chapel and Cross Street are shown as being north-to-south.

Baker's map also shows a public house, two stables, a counting house and a number of rooms for warehousing. The buildings surround a central courtyard marked 'Courrists Yard'. The public house was knocked down at the turn of the 19th century and part of the land was put to use as an extension to the lower churchyard.

As Manchester grew, Cross Street became a busy thoroughfare. In 1845 the Manchester Corporation widened Cross Street, with further widening taking place in 1871 and 1897, by which time the pavement ran right up to the chapel building, covering the grave markers.



*Portrait of Reverend Henry Newcome, dating to 1760  
(copyright Manchester Libraries, Information and Archives, Manchester City Council)*



*Newspaper article referring to road widening in 1897*



In the early 20th century, the Manchester Corporation decided to close the chapel and acquire the land in order to widen Cross Street still further. This scheme was included in the 'Manchester Improvement Bill' of 1914. The bill was passed but the scheme was never carried out due to the outbreak of the First World War.

The chapel was destroyed by fire bombs during the Manchester Blitz in 1940; a map of the city centre from this time produced by the Manchester City Council Architect's Department shows Cross Street Chapel as a 'demolished building'. The congregation continued to worship in a prefabricated building within the ruins until the late 1950s, when a new chapel building was erected. This new chapel was itself demolished and an office block known as The Observatory was constructed in 1996 after the upper graveyard had been cleared of human remains by an exhumation team in 1990, though this process was not archaeologically recorded. The present Cross Street Chapel occupies the ground and first floors of the office block.



*A contemporary photograph of Cross Street Chapel in 1900 (copyright Manchester Libraries, Information and Archives, Manchester City Council)*





*The ruins of Cross Street Chapel in 1958 (copyright Manchester Libraries, Information and Archives, Manchester City Council)*

## CROSS STREET CHAPEL AND THE UNITARIAN MOVEMENT

Unitarianism has its origin in the dissenter's movements of the late 17th and early 18th centuries. The dissenter's movement comes from the Great Ejection of 1662 when 2000 ministers were ejected from the established church, following on from the Act of Uniformity 1662. The act imposed state control on religion by regulating the style of worship in the Church of England. However, many clergy rejected the restrictions, which led to the ejection of the ministers. Reverend Henry Newcome established his own congregation that same year. The '*Dissenters' Meeting House*' on Cross Street was opened in 1694 under his patronage, and plays a significant role in the history of nonconformism within the city.

The Cross Street chapel became officially recognised as a Unitarian Meeting House in 1761.



In the early nineteenth century the nonconformist congregations of Manchester, including the worshippers at Cross Street, played an important role in the politics of the town. Politically, the town's industrial and commercial leaders were broadly divided between two factions: on one side, the traditional Anglican Church and Tories, and on the other, Liberal politicians and nonconformist groups, including the Unitarians. The Unitarian families who worshipped at Cross Street Chapel, as well as at Mosley Street Chapel and Upper Brook Street Chapel, were very influential in the business and politics of the town; Unitarians were prominent members of the town's cultural institutions, including the literary and philosophical society.

In the late 18th and 19th centuries, the nonconformists of Manchester worked hard to improve social conditions of the town. The Cross Street Chapel, as the major gathering place of Unitarians in the town, was a centre of such activity. In the early nineteenth century the Unitarian groups in Manchester had founded several schools, Manchester's original Mechanics Institute on Cooper Street, and its first art gallery.

The Cross Street Chapel also provided Manchester with its first Mayor, Sir Thomas Potter, and in fact, of the first 28 mayors of Manchester, ten of them were Unitarians.

## ELIZABETH AND WILLIAM GASKELL

Often referred to as Mrs Gaskell, Elizabeth Gaskell was an English novelist, biographer and short story writer (1810-1865). Her first novel was *Mary Barton: A Tale of Manchester Life* (1848). She is best known for her novels *Cranford* (1853), *North and South* (1854), and *Wives and Daughters* (1865). Her work details the lives of all levels of Victorian society, including the very poor and the wealthy, as well as rural and urban existences. Her novels were written to illustrate the problems faced by people living in industrial towns and cities. Elizabeth Gaskell became one of Britain's most popular novelists. Her works are useful to social historians and are enjoyed by many.

She was born as Elizabeth Cleghorn Stevenson in Chelsea in 1810. She was the daughter of a Unitarian Minister, William Stevenson. Her mother was Elizabeth Holland, who came from a family with connections to other prominent Unitarian families in Lancashire and Cheshire. After her mother's death the same year, Elizabeth was raised by her aunt in Knutsford, then a rural village in Cheshire. She married Reverend William Gaskell in 1832, the then junior minister at Cross Street Chapel.





*Portrait of Elizabeth Gaskell by George Richmond dated to 1851 (copyright Manchester Libraries, Information and Archives, Manchester City Council)*



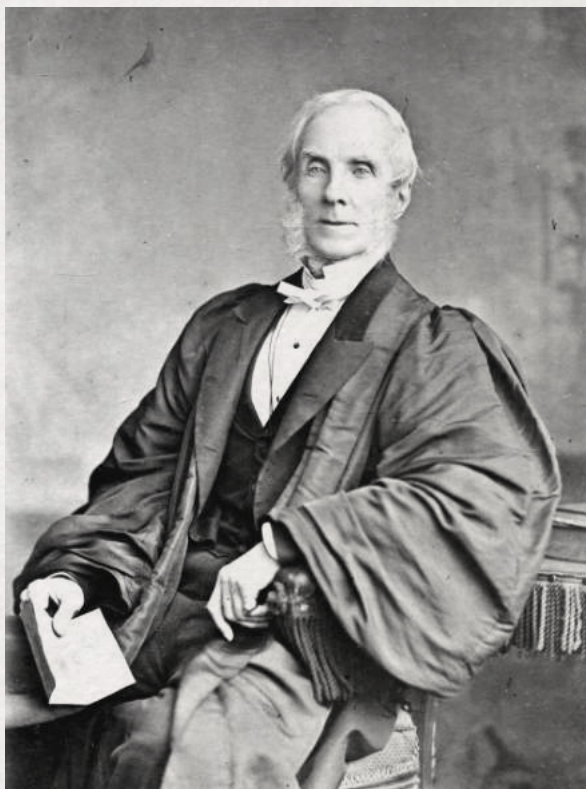
William Gaskell (1805-1884) was born in Warrington, the eldest of six children. The Gaskell family were a prominent dissenter family in the region, and William's father was a Unitarian theology teacher. William Gaskell was an advocate for charity work and education of the working class and had an important influence on improving education and aiding social reforms for the working class.

In 1850 the Gaskells moved to a villa at 84 Plymouth Grove, Longsight. Elizabeth wrote the bulk of her literary works in Manchester, and the Gaskells' social circle included writers, journalists, religious dissenters and social reformers of the age. Lord Houghton, Charles Dickens and John Ruskin visited Plymouth Grove, as did Charlotte Brontë, a friend of Elizabeth's who stayed there three times.

William and Elizabeth Gaskell both worshipped and preached at Cross Street Chapel, and William Gaskell led the congregation there from 1828 till his death in 1884.

William Gaskell had a tremendous influence on the people of Manchester. An outstanding lecturer, he was appointed professor of English history and literature at Manchester New College in 1846. He was also responsible for establishing evening classes at Owens College and from 1858 taught at the Working Man's College in Manchester. From 1861 to 1875 Gaskell was also editor of the Unitarian Herald.

The Gaskell Room of the existing Cross Street Chapel houses a collection of memorabilia of both Elizabeth and William Gaskell. Since 2014, Elizabeth Gaskell's House at Plymouth Grove has been open as a museum (<https://elizabethgaskellhouse.co.uk>).



*Portrait of William Gaskell in his later years (copyright Manchester Libraries, Information and Archives, Manchester City Council)*



## CROSS STREET CHAPEL GRAVEYARD

It was recognised at an early stage that the construction works could impact on below ground remains outside the Unitarian Chapel on Cross Street, although it was not known for certain if there was any trace left of the lower graveyard outside the chapel. Exploratory test pits were excavated in July 2013, which confirmed that the former graveyard extended into Cross Street when gravestones were identified beneath the road surface.

An archaeological excavation followed, between September 2014 and November 2015 under the cover of a large tent outside the

chapel. The excavation exhumed the remains of over 250 burials interred between the early 18th century and the middle of the 19th century. Once the excavation had started and the ground surface removed it was seen that the majority of the burial plots were overlain by ledger gravestones forming an almost complete dressed stone surface across the front of the Cross Street chapel.

It appeared that during the widening of the road in the 1800s the gravestones had not been removed. The gravestones denoted family burial plots that were used and reused during



*The ledger grave markers under the road on Cross Street*





*The graveyard wall recorded during the excavation on Cross Street*

the life of the graveyard. Fifty-eight gravestones were recorded, though many had been cracked or disturbed by modern activity such as the insertion of pipes or ducts for various services.

The brick-built boundary wall of the graveyard was exposed on the western edge of the excavation area, which matches the layout shown in the *Baker Book*. The brick foundations of the chapel frontage were also exposed during the excavation, which in plan was consistent with the 1897 map.

It is assumed that burials would have started soon after the chapel was built, but that in those early years (the late 17th century) the burials took place in the upper burial ground,

which was cleared in the 1990s. The earliest burial encountered during this excavation dated to 1720, while the most recent burial dated to 1852.

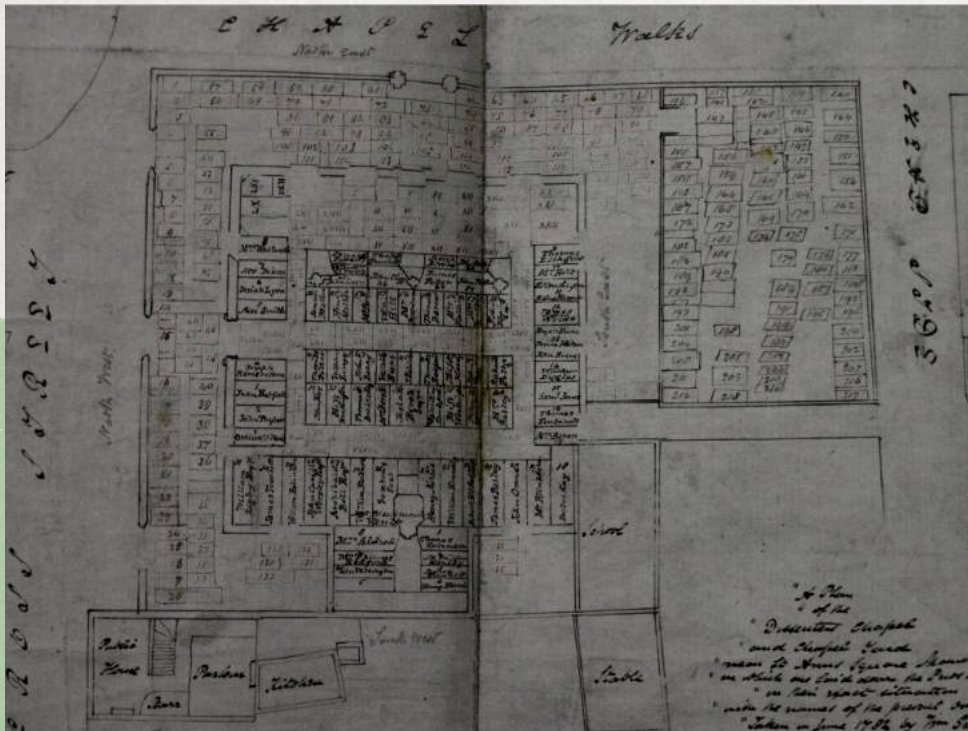
The skeletons excavated were well preserved and were analysed by York Osteoarchaeology. The human remains provide a fascinating insight into life in the expanding town of Manchester immediately prior to and during the industrial revolution, one of the most important social and economic periods in the city's history.



# THE GRAVEYARD RECORDS

In the 19th century, two graveyard surveys were carried out of Cross Street Chapel, documenting the inscription on each grave marker visible at that time.

An earlier graveyard survey was started in 1854 by Thomas Baker, his son Charles William Baker, and Richard Vickers, the chapel keeper. Recorded in a small black leather-bound journal, it contains annotations up to 1871. This '*Baker Book*' contains important information on the lower graveyard. Along with gravestone inscriptions, the book contains information on baptisms, marriages and members of the congregation. At the time of the survey, the transcriptions of the gravestones were partly taken from an '*earlier attested document*', at that time kept in the safe in the chapel. The Baker Book, held at Manchester Central Library, was transcribed by the archaeological team during research for the Cross Street project.



*The Baker Book plan of the chapel graveyard (book held in Manchester Central Library)*



No.	Name and to whom related	Place of abode	Age	Disorder	Where interred
25	Potter George, son of Richard	Mosley Street	40	Decline	L.G. stone
26	Kay John, son of Samuel	Adelphi, Salford	18	Consumption	L.G. stone
27	Orme James	Chapel-house, Chapel-yard	74	Old Age	H.G. stone
28	Touquet James	King Street	84	do.	In the Chapel
29	Mawr Meredith	Market Street	45	Inflammation	L.G. stone
30	Hatfield Hannah	Travis Side	73	Old Age	L.G. stone
For the Year 1828.					
31	Daniels Sarah Sindlebury, relict of Geo	T. Canvgate	76	Old Age	H.G. in St. Martin's Church
32	Myer, Maryll Wilmina, daughter of Myer Sigismund & Paulina	Thelane	8 <sup>mo</sup>		L.G. stone

An example of the death records held at Manchester Central Library

In May 1897 Manchester Corporation undertook a survey prior to widening the Cross Street carriageway. This survey was limited to the portion of the eastern row of grave slabs exposed at that time. However, these records were invaluable in identifying the remains of individuals during the excavations, especially where an overlying grave marker may have been destroyed or removed. Similarly to Baker's survey, the 1897 survey provided a full transcription of all the grave markers and was presented as an: *'Index giving an exact copy of every legible inscription upon the face of every Gravestone or Monument in two portions of the said Graveyard ... showing by consecutive numbers the exact position of each grave.'*

During research for the project a number of death records were also uncovered at Manchester Central Library. These records documented burial locations, the age at death and the cause of death of the Cross Street congregation who were interred at the chapel between 1791 and 1839.



## ARCHAEOLOGICAL WORK

To allow the safe and respectful exhumation of those parts of the lower graveyard which lay outside the chapel under the roadway of Cross Street, the pavement adjacent to the chapel was closed off and a large tent was erected to enclose the excavation area. The excavation had to be screened from public view due to the terms of the licence under the 1857 Burial Act.

It was not possible to excavate the entire graveyard at the same time for health and safety reasons and to maintain the stability of the ground, so the team worked on the site in a sequence of discrete trench excavations, or bays, to safely excavate all the human remains that were to be disturbed by the construction of the new tramway. A series of metal shoring frames and sheet piles were used to ensure each excavation bay was suitably shored up and safe to work in.



*Archaeologists at work on Cross Street inside the scaffold tent*





*Archaeologists working inside one of the bays*

It was a challenging environment to work in and the excavation was very labour intensive; all soil had to be removed by hand and then winched out. Exposed electric and telecom services criss-crossed the area, often making excavation difficult and time-consuming. The junction between Chapel Walks and Cross Street was especially affected by services and was particularly wet below ground level.

A number of coffined individuals and partially excavated grave plots were left in place where it was deemed that the development would not impact on them. If an entire group of burials (i.e. family group) was located beneath the level of the development footprint, they were all left in place. If upper individuals within a plot had to be exhumed but those beneath would be unaffected, the entire burial group was excavated anyway, so that the family could be reinterred together.



## THE BURIAL PLOTS



*Burial stacks under excavation*

The burials were stacked in burial plots, up to 4m deep. Of the 77 burial plots, 53 were overlain by an intact or partially intact grave marker. This helped to clarify the identity of the deceased beneath, who in most cases could at least be linked to a family name. However, identification was complicated at some locations due to the re-use and re-excavation of the plots over time, resulting in coffins having been moved.

The excavation recovered the remains of 241 full or partial skeletons, along with thousands of fragments of disarticulated human bone. It was possible to potentially identify 172 individuals, using either: the evidence from a nameplate or studwork text on a coffin, which was considered to be the most conclusive form of evidence; the inscriptions on the gravestone overlying the burial plot, where they survived; or the historical documentation, such as the Baker Book or the death records. Correlating this biographic information with the osteological data helped to confirm the identity of many of the individuals, by linking a person's name and their recorded age at death with the sex and age data of the skeletal remains from the osteological analysis.



When a gravestone was absent, displaced or badly damaged, information from the Baker Book was useful as it provided the layout of the burial ground and the identities of those buried in each plot. The death records also helpfully indicated burial depth. For example, Betty Kinsey, a 'spinster' who died from consumption in 1804 at the age of 32, was buried at more than 10 feet [c.3m]. Others were recorded as having been buried merely inches below the ground, presumably right under the grave marker itself; for example, Hannah Rylance, a resident of Gravel Lane who died 'from Old Age' at 90 years old, was buried in 1800 at depth of '0ft 6in' which suggests very little space was available between the interment and the gravestone. A number of stacks were recorded as 'full', suggesting that the plot was unable to fit in any more burials. Hannah Hatfield, who died in 1827 of 'old age' (at 73) was the last to be buried in one such grave plot, after which it was determined to be full.



**KEY:**

- Limit of Excavation
- Location of Grave Plot
- Estimated Location of Grave Plot

*Burial plots from the Baker Book correlated with the excavation results*



## BURIAL RITES

The burials were in simple earth-cut graves. Unlike many contemporary burial grounds, none of the graves were vaulted or brick-lined. Historical evidence suggests that the burials within the chapel were more prestigious than the burials in the lower burial ground, perhaps indicating that burials inside the chapel were in crypts or vaults.

All but one of the skeletons (where it could be ascertained) were buried laid on their backs with their legs straight, with the arms usually symmetrically arranged by the sides of the individual. One individual was laid in the grave face down with their arms beneath their pelvis; this is likely to have been due to later disturbance, with the coffin being removed to make space for a new burial and then reburied upside down.

Almost all the graves and burials were orientated east-west, with the head at the western end, in the typical Christian manner. Some burials within reused graves were, however, found to have been exhumed and then reinterred the other way around, with the head to the east, although the reason for this is unclear. The only north-south orientated graves were those at the western doorway of the chapel, which corresponds with the detail provided in the *Baker Book*. The graves were probably placed north-south here in order to maintain the stability of the ground and ensure the gravestones would not sink too much; the congregation would cross the graves widthways to enter the chapel from the west door.



*Intercutting superimposed graves*





*The team of archaeologists excavating the grave stacks*

Funerals in the late post-medieval period were the manifestation of an individual's lifetime achievement, having maintained a respectable position in society. During the Victorian period, it was standard funerary practice to adorn and aggrandise the deceased. Even people with very little money to spare spent as much as they could afford on funerals and funeral costs were adapted to an individual's social standing and purse. The coffin was just one aspect of the mourning process and it would often be transported to burial in a black-draped carriage, pulled by black-plumed horses and followed by a procession which could include professional mourners. After the 1840s, however, such funerals were increasingly viewed as ostentatious, and even considered vulgar.

The mid-18th century saw an increase in the money spent on funerals as new techniques such as veneers and French polishing increased the popularity of oak coffins at the expense of velvet- or baize-covered elm coffins. In London in 1857 the cost of an elm coffin, lined and ruffled inside with fine linen, was £1.11s.6d, while the interment fee at Tower Hamlets Cemetery was £5.2s for an adult. The cost for burial in a standard wooden coffin, with a small number of attendees, was reported as being £8.16s.6d. However, during the time of use of the Cross Street graveyard, a wide range of coffin furniture was able to be mass-produced, making such fittings more affordable and accessible to the general population.



## THE COFFINS

Although all of the burials would have originally been within a coffin, these did not always survive, due to ground conditions and the effects of disturbance from later burials within the stacks. The excavation uncovered the remains of 275 wooden coffins in varying degrees of preservation.

Some coffins were visible only as a 'coffin stain' - a coffin-shaped discoloration of the soil - or there was no evidence at all of the coffin as the wood had not survived. Other coffins survived only in a fragmentary state, some of which were identified only from the presence of brass studs or other coffin furniture.



*A grave visible only as a 'coffin stain'*



*An example of a single break coffin, with decorative stud work visible*

The wooden coffins featured four different shapes; single break, fish tail, shoulder break and variants on the rectangular shape, including tapered. The most common shape was the single break coffin, followed by the fish tail and shoulder break shapes, and finally the rectangular shape was least common. The coffins at Cross Street were similar to those recovered from contemporary ecclesiastical sites, such as at Manchester Cathedral, St Martin's, Birmingham and Christ Church and All Saints in London.

The basic construction of a standard coffin, able to be produced by any carpenter at the time, was the flat-lidded single break coffin. These coffins were butt jointed with nails/screws or even glue. The single break was produced by either steaming the wood into shape or by scoring the wood multiple times and bending it to shape, known as *kerfing*.





*An example of a fish tail coffin, this one belonging to a child with the initials 'NF' and dating to 1734*



*An example of a sealed lead fish tail coffin*

Fish tail coffins have a break with a rounded shape at the torso and then taper dramatically to the feet and flare out. The shoulder break coffin is a variant of the fish tail with the same rounded body but with no pinching or flaring at the feet. The construction of these coffins was the same as for the single break apart from the more rounded shape of the sides, achieved by steaming the wood into shape.

*An example of a shoulder break coffin with a name plate*



*An example of a shoulder break coffin with a name plate*





The rectangular coffin was the standard type of coffin prior to the 1800s. However, these forms of coffin are usually only seen in pauper graves in Georgian and Victorian burial grounds; they were plain and simple to construct with single board sides joined using a butt joint and nailed together. In some instances, the foot end tapers to save on space within the coffin.

Eight double-wooden coffins were also recorded, whereby a wooden coffin was enclosed within an outer wooden case.



*An example of a double wooden coffin*

The wooden coffins recorded were all held together by nails. In some cases, the boards were not large enough to create a whole element, or perhaps were not thought strong enough to create a coffin side, and as a result, some coffin boards were composites, usually with abutting edges planed smooth to allow a close fit. These composite coffins could indicate the use of leftover wood, cobbled together to create a complete coffin, and could indicate that the deceased in these cases came from a poorer family.

Most of the wood used in the surviving coffins was identified as oak. Some, however, were made of Scots pine, ash and silver fir, with occasional examples in willow, poplar and elm. Of the coffin samples examined, about 1% of them were found to contain more than one species of wood.



Ornamental trimming, or nailed strips of wood, was recorded on some of the coffins and many of the chamfered trimming profiles were associated with fabric coverings. Some samples were sufficiently well preserved to show that the fabric had been wrapped over the edges of the coffin before the trimming pieces were attached to the sides using brass studs or iron nails.

There were also 23 coffins which were triple-shelled and had been provided with an additional lead casing. They were usually made of an outer wooden case, a lead shell and a wooden coffin. It would have only been the better-off members of the congregation that would have been able to afford a lead-lined coffin, which explains its relative rarity.

People of high class favoured triple-shelled coffins as they could afford the extra expense of the lead working needed - only plumbers would be able to carry out this work. The lead shells were made of sheets of lead: a sheet of lead was folded around the sides of the wooden coffin and was then folded over and soldered onto the sheet forming the lid. The outer wooden case was often covered in velvet fabric, or baize for the less expensive option. This was fastened with upholstery pins all around the coffin. Despite the poor preservation of the outer case on these types of coffins at Cross Street, mineralized wood and fabric was found on some of the *depositum* plates and grip plates.



*The dismantled components of a wooden coffin*

Often the lead shell had perished to such a degree that the skeleton within the inner coffin could be investigated and exhumed. However, seven of the lead shells were found still sealed and therefore were expected to contain very well preserved individuals - these were not investigated due to environmental health regulations, and instead the whole lead shell was placed inside a new coffin and reburied immediately at Manchester Southern Cemetery.



*Sealed lead coffin being removed for reinternment*





## COFFIN FURNITURE

From the early 18th century it became fashionable to decorate coffins with a suite of metal coffin fittings or furnishings, which were both functional and decorative. This could be done in many ways, including *depositum* plates (a nameplate, sometimes referred to as a breastplate), escutcheons (an ornamental emblem), grips and grip plates (handles), and upholstery studs. Decorations and extravagant styles were reinforced by the businesses in the funeral trade, who supplied a range of items that varied greatly in price and could emphasise a person's social standing or wealth in death.

The *depositum* plates recovered at Cross Street came in a range of styles, with six different designs recorded, with a shield being the most common shape.



*The coffin name plate of Elizabeth Phillips*



*The coffin name plate of Joseph Hilton*





*A coffin with end handle, name plate and stud work*

A range of coffin handles ('grips') were found, in both brass and cast iron. Although some of these were heavily corroded, a wide variety of designs and motifs were identified. These included bat wing sets, a six-petalled flower in a Rococo foliate design, as well as plain square grips and simple, curved, bail handles.

*Examples of the different types of coffin handles (or 'grips')*





Upholstery pins or studs were also recovered. These would have held fabric in place within and around the coffin, which was often of elaborate design or was used to create text, such as a person's initials.



*Decorative stud work*



*Coarse baize coffin cover with  
copper alloy studs*



*Decorative stud work spelling out the initials 'WP'  
and the date 1742*



## JEWELLERY AND PERSONAL ITEMS

Only a few finds were recorded, likely because grave goods were not commonly placed within Christian burials during the post-medieval period. At Cross Street, the deceased were generally found to be interred in a plain burial shroud within a coffin with no personal items.

Two gold rings were found with Elizabeth Philips, who died in 1813 aged 64. These were a plain gold band and a gold ring originally set all around with amethysts. Both rings were found on her left hand and would have been worn together as a wedding ring and an eternity ring. Eternity rings, symbols of eternal love, were given to mark a major milestone in a relationship, for example the birth of a first child or a significant wedding anniversary. The use of coloured gemstones was popular in the late 18th century, with diamonds only becoming fashionable in the 19th century.



*Elizabeth Philips' rings, who died in 1813 aged 64 years old*

A near complete tortoiseshell hair comb was found with Elizabeth Lyon, who died in 1811 aged 53. The comb was in excellent condition, and still had matted strands of hair attached to it. Similar tortoise shell combs were found at St Martin's Church in Birmingham. Such a decorative item suggests that the coffin may have been open while people paid their respects prior to burial.



*Tortoiseshell hair comb found with Elizabeth Lyon who died in 1811 aged 53 years old*

A bone handle for a tanged implement was recovered from the grave of Benjamin Potter who died in 1810 aged 57. Although we don't know what this implement was, it may have been a tool and a treasured personal possession.



A clear medicine bottle was found within a coffin in the Fielding family plot. Burials in the plot were not in a good condition and the skeletons were mingled together, so it was difficult to confirm with whom the bottle had been interred though it is probable that it was with either Esther Fielding who died in 1784 aged 63 or Thomas Fielding who died in 1780 aged 51.

Many small functional items, such as pins, buttons and coins were recorded. For example brass dress-maker's pins would have held the burial shrouds in place. Some of the pins were made of 'yellow brass', a copper alloy with a high zinc content which gave them a golden colour. Eight bone buttons were recorded. These are best described as turned-button discs. The thread would have been wound around the disc to form a covering, and such buttons on shirts or undergarments were common at the time. Several copper buttons were also recorded and hint at more elaborate forms of funeral garb, which unfortunately did not survive.



*Brass shroud pins*



*Bone buttons*



## TEXTILES

For mourners, the textiles used in funerals were part of the process that assisted the handling of grief, by providing a comforting image of the dead as asleep in a bed of pure white, inside a casing of black. Textiles were recorded from 59 of the coffins. All were wool, and the absence of other fibres may be due to the burial conditions; plant fibres such as cotton decay more easily so the cotton shrouds and sheets were entirely absent. The presence of textiles on a substantial number of metal fittings and depositum plates confirm the use of external fabric coffin covers, which was a standard funerary style commonly encountered in similar burial assemblages from the period.

Funerary textiles can be considered in different ways. They can be seen as being sensitive to social status, in which case the Cross Street examples probably represent the middle-class congregation that is known to have worshipped there. The nature of the textiles recorded may also indicate the effect of the various acts of Parliament which limited the import of foreign textiles and promoted the use of wool. These included specific acts for *'Burying in Woollen'*, requiring that a corpse only be dressed in a shroud or garments made of wool. It may be that a preference for wool was also related to the regional economy, and access to the wool of West Yorkshire and Lancashire in the 18th and 19th centuries. The funeral trade's reaction to this legislation and the regional economic preference to use wool was the production of 'linen-effect' wool textiles.



*Textile preserved beneath a name plate, retaining the shape of the plate*



*Textiles with stud work remnants*



*Example of a hemmed shroud*



*Example of linen effect textile*



## FLORAL REMAINS

In particular conditions the remains of plant material can survive in archaeological contexts. This was the case in the waterlogged area of the excavation, where some floral remains were successfully recovered. These were examined with a microscope and identified in reference to plant atlases. In a particularly well-preserved wooden coffin, waterlogged plant remains were identified as the evergreen needle-like leaves of rosemary. Although no skeletal remains survived, the coffin was from that of an infant and dated to 1734 from its studwork (which also showed the initials NF). The burial records did not mention an inhumation from this date and the gravestone only referenced a Richard Taylor who died in 1791 aged 39, so the identity of the infant is unknown. Rosemary symbolised remembrance, and the green and unchanging nature of the evergreen represented immortality.

A flower head was recovered from another 18th century infant's coffin. The coffin was well preserved and skeletal remains were present; the date 1735 and initials 'IB' were recorded from the studwork. The coffin was identified from the transcription of the gravestone as that of Ins Blinkhorn, son of William Blinkhorn, who died 19th September 1735. Although the flower head could not be identified with certainty, it was ascribed to the *Asteraceae* (*Compositae*) family, which includes such species as marigold, daisy and chamomile. Such flowers were commonly added to the coffin both to look attractive and to mask unpleasant odours.



*Child's coffin marked 'IB 1735'*



## THE OSTEOLOGICAL ANALYSIS

The analysis on the human bones was carried out by York Osteoarchaeology. This analysis not only helped to correlate the burial records with the remains and thus identify individuals, but it also provided an insight into life in Manchester before and during the Industrial Revolution.



*Excavated human remains*



*Osteologist analysing the human remains*



## AGE

Just over a quarter of the excavated skeletons were identified as children, with the largest proportion of these dying between the ages of one and six years. There was an underrepresentation of younger children may be due to the poorer preservation of their less robust bones or disturbance from later grave digging, disarticulating the remains.

Most adults survived into mature adulthood. Unexpectedly, more males were dying at younger ages, perhaps related to dangerous working conditions. In many post-medieval populations a peak in deaths of young adult females attributed to childbirth is evident; this was not observed in the Cross Street population.

One individual, Betty Slater, was found with a perinate (newborn or foetus) between her legs. The death record entry for her reads '*wife of Thomas Slater, died in 1798*', with a cause of death listed as '*childbearing*'. The child is not named in the records or on the gravestone, and may have been the unborn or stillborn child of Betty Slater who died in childbirth.

It was observed that those who survived to adulthood reached at least middle age and, as a result, age-related diseases such as osteoporosis, joint degeneration and dental disease were prevalent.

## HEIGHT

Adult height could be calculated for around half of the individuals and was around average for the post-medieval period. The males ranged in height from 5'2" (158cm) to 6'0" (182cm), with the mean being 5'8" (172cm). The post-medieval average lies between 168-174cm.

The females ranged in height from 4'11 1/2" (151cm) to 5'7" (170cm), with their mean falling at 5'2 1/2" (159cm). The post-medieval average for women lies between 156-164cm.



## NUTRITIONAL DEFICIENCY

A number of children suffered from nutritional deficiencies but there was lower than expected evidence of rickets and scurvy. Early childhood stress lines in the teeth were recorded in just under a quarter of the adults, while a condition indicative of vitamin B12 deficiency and infection in childhood was found in a third of the adults. The lesions were more prevalent in females, which may either suggest that girls were more likely to experience childhood diseases or malnutrition than boys, or that girls were better at surviving early childhood stress.



*Evidence for rickets in the thigh bone*



## HEALTH AND DISEASE

A number of the adult skeletons showed evidence for cultural habits; for example, wear patterns on the teeth from habitual pipe smoking were found in four adults, including one woman. Air pollution or smoking caused chronic sinusitis in two thirds of the population. Deformation of the ribs of three women suggests that some individuals may have been wearing corsets. Corset wear was common in the period amongst all social classes and it is likely that more individuals would have displayed rib deformation had the ribs been better preserved.

Ruptured discs caused by stress on the spine was common and affected men twice as often as women. Two women had evidence for trauma usually associated with strain on the muscles of the shoulder during adolescence.

Older age and daily wear and tear resulted in degeneration of the spine and other joints and in some cases caused joints to grow together. A small number of older adults also suffered from osteoarthritis, rheumatoid arthritis and inflammatory joint disease.

Evidence for injuries was found on some of the skeletons, particularly the men. The most frequent types of injury included fractured bones, the majority of which had healed prior to death. The spine and ribs in males and collarbones in females were the bones most likely to have been broken during life, and skull injuries were more common in men than women. The lower limbs were also affected, with thigh bone fractures potentially having been caused by high velocity impacts or underlying pathological conditions.



*Healing fracture on a collarbone*

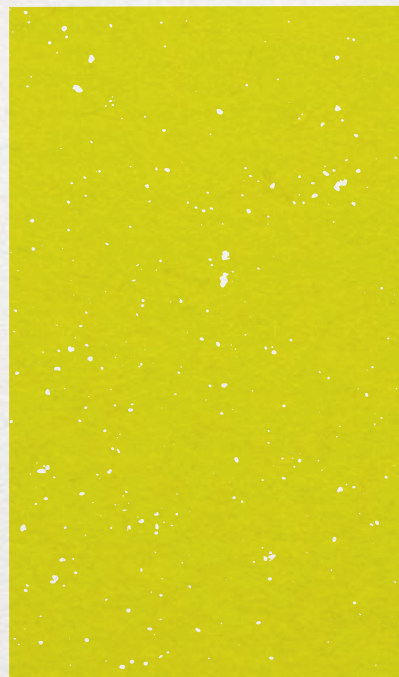


One female had multiple fractures to her torso, shoulders and arms, which may have been caused by bone loss as a result of osteoporosis, and she was still recovering from these fractures when she died.

Two men had unhealed injuries, showing that had not recovered from these injuries at the time of death; one of these was located on the shoulder blade and the other on the upper thigh bone.

Other conditions were recorded, including metastatic cancer, and one adolescent may have had a pathological fracture to their right forearm, caused by destructive lesions, possibly related to tuberculosis.

Evidence of autopsies having taken place was found on two disarticulated human bones. An unhealed amputation just below the knee was also identified on one individual, with saw marks evident on the bone, suggesting the individual had died shortly after the procedure. No name could be attributed to the individual: only the letter 'M' from a surname was recorded on the studwork of the decayed coffin.



*Unhealed below-the-knee amputation*



## DENTAL HEALTH

The dental health was worse than the post-medieval average. There was a high frequency of tooth decay consistent with a high sugar and refined carbohydrate diet, despite the fact that sugar did not become a common affordable commodity until the late 1800s. Cavities were more common in females. Tooth decay was also seen in both the milk and permanent teeth of children. Dental abscesses were also common, particularly in males. Dental plaque was abnormally widespread in nearly half of all adult teeth, although the deposits were generally only slight; taking this into consideration, together with the mature nature of the population, it seems likely that some level of oral hygiene was attempted. There were, however, several examples where the individual had lost all of their teeth.



*Example of a jaw with all teeth having been lost*



## THE REINTERMENT

On completion of the osteological analysis the human remains were reinterred at Manchester Southern Cemetery on the 19th January 2017. The ceremony was attended by representatives from many of the involved parties including CFA Archaeology Ltd, GMAAS, and Transport for Greater Manchester, and many members of the Unitarian Church were present for the service. The service was given by Reverend Cody Coyne of Cross Street Chapel.

## THE CROSS STREET CHAPEL CONGREGATION

The excavation provided an insight into the nature of the Cross Street Chapel congregation and the population of Manchester during this period. Historically, the majority of nonconformists were of the professional and skilled members of society, those that ran manufactories and local businesses (the ‘urban middle class’), and indeed many of the members of the congregation of Cross Street Chapel were from the manufacturing classes, such as Thomas Hatfield and John Potter, both named as merchants. Grave markers denoting the burials of Potters were noted during the excavation, possibly indicating that individuals with the Potter family name were exhumed during the project.

The individuals buried encompassed the very young to the very old, from the early 18th century to the middle of the 19th century. The earliest grave was that of Ann Cropper, aged 2, who died in March 1720, though no skeleton survived. The latest grave was that of Agnes Phillips, who died in 1852, aged 63. The earliest born was Joseph Ramsbotham of Cheetham who was born in 1667 and died aged 73 in 1740. The latest born was Andrew Hall, born in 1818, the son of John Hall, who died in December the same year aged 11 months.

The congregation therefore spans a 185 year period of the history of Manchester, a period which saw its growth from a small market town in the 17th century, with a population of a few thousand people, into a major manufacturing and commercial centre with a population of well over 100,000.



The living conditions for the people of Manchester during the 18th and 19th centuries were mixed. The urban poor endured terrible overcrowded conditions, living in close quarters to the factories and mills where they spent their often short working lives. Those who could afford to lived further away from the pollution and overcrowding in better conditions.

The congregation at Cross Street Chapel represented the mercantile middle class. The evidence from coffin fittings, decorative nameplates, shrouds and the small number of grave goods, is consistent with the funerals of the middle class of the period. Nonconformist chapels such as Cross Street appeared in areas undergoing urbanisation; in this case, a focus of manufactories and local businesses associated with the textile industries.

The burial register for Cross Street Chapel, although incomplete, is unusually detailed, in many cases providing the deceased's address and suspected cause of death.

The streets with the highest numbers of deaths over the course of 100 years were Princess Street (15 deaths) and Ardwick Street (14). Other notable streets included Mosley Street (11), Brazenose Street (10) and Holme Street (10). This data is derived from the burial register (1791-1839) for the individuals buried in the lower graveyard.

Princess Street appears to have been a relatively multicultural and progressive area; it was residence to the offices of 'the society for the relief of really deserving distressed foreigners' and was apparently relatively exclusive. Ardwick Green appears to have been the most prestigious address in the area: '[that] this was one of the most desirable addresses in Manchester a century before that accolade moved to South Didsbury, can be gleaned from the arrival of John Rylands, the cotton magnate, at No. 24 (later a school), on the north side in 1850'. This cannot be the same John Ryland (sic?) in the burial register dwelling in Ardwick, as he is recorded as being buried in 1834; it could, however, be a descendent.

Brazenose Street was also one of the most desirable streets in Manchester. It therefore suggests that the many members of the congregation of Cross Street were drawn from some of the more prestigious areas of the middle classes in Manchester.



## THE FAMILIES AT CROSS STREET

Certain family names kept recurring, indicating a certain stability in the congregation over the generations. Frequently encountered names included: Mottram, Hilton, Potter, Philips, Hadfield or Hatfield, Clegg, Mason, Aldred, Partington and Robinson.

## NOTABLE INDIVIDUALS BURIED AT CROSS STREET CHAPEL

Thomas Henry (1734-1816) was a physician and chemist based in Manchester. Born in Wrexham on 26 October 1734, he was the son of a schoolmaster. Following on from being assistant apothecary at Oxford, he set up as an apothecary and physician in Manchester. He published several papers on chemistry and medicine, and in 1775 was elected a fellow of the Royal Society.

The son of Thomas Henry, William Henry (1774-1836), was a renowned chemist, born in St Ann's Square, Manchester, which now bears a Blue Plaque in his honour. He was apprenticed to Thomas Percival, a physician who wrote on medical ethics and campaigned for public health measures, and later worked at the Manchester Infirmary. He studied medicine in Edinburgh from 1795-1807 but ill health interrupted his practice as a physician. One of his best-known papers describes experiments on the quantity of gases absorbed by water at different temperatures and under different pressures. His formula, known as 'Henry's Law', was integral

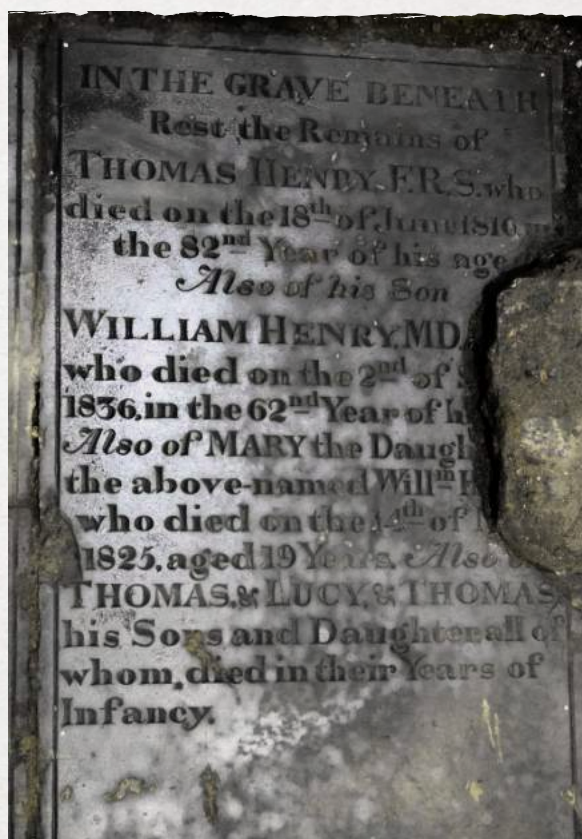


*Portrait of William Henry (copyright Royal Institution of Great Britain/Science Photo Library)*



to the understanding of the effect of decompression (the bends) on scuba divers and in the development of fizzy drinks and soda water. He was one of the founders of the Mechanic's Institute that was to become the University of Manchester Institute of Science and Technology, and in 1809 he was elected a fellow of the Royal Society. He shot himself in his private chapel at Pendlebury, near Manchester, in 1836.

Both Henrys were buried in lead coffins, and though recorded during the work at Cross Street, they were not exhumed as they were deep enough to not be disturbed by the construction of the tramway.



*William Henry's gravestone found during the work on Cross Street*



Christiana Hillmer (1731-1759) was the wife of Joseph Hillmer, a travelling oculist (ophthalmologist) from Vienna who lived in Berlin between 1748 and 1768. She died in 1759, presumably due to complications from labour, and was buried with her daughter Frederica who died aged 14 days. The grave marker read:

**HERE RESTETH THE BODY OF CHRISTIANA**

**WIFE OF SIEUR[?] JOSEPH HILLMER**

**COUNSELLOR OF THE COUNT TO HIS PRUSSIAN MAJESTY**

**DOCTOR OF PHYSIC PROFESSOR IN SURGERY AND MEMBER OF THE COLLEGE**

**IN BERLIN WHO DIED MARCH 20TH 1759 AGED 28 YEARS**

**FREDERICA HIS DAUGHTER WHO DIED MARCH 27 1759 AGED 14 DAYS**

Both skeletons in this grave matched the information on the grave marker.

William Crane (1722-1808) was a linen and yarn merchant. He was involved in the formative years of the cotton industry in Manchester. His life and business ventures are discussed in various economic journals. Despite his advancing age, Crane adjusted to dramatic changes in trading conditions and was a remarkably successful businessman during the 1780s and 1790s. He diversified his business interests and adapted his supplies and working methods to ensure his trading activities remained profitable. His skeleton had a possible healed fracture to his right lower leg and osteoarthritis in the lower back and other degenerative joint changes in knees, ankles and hips, a result of old age. He died aged 85 of '*decline*'.



## THE LEGACY OF THE ARCHAEOLOGICAL WORK

The archaeological work attracted a lot of attention from the public and the media. At the time of the excavations, the Manchester Evening News featured a story on the St Peter's Church and Cross Street Chapel work; BBC Radio also interviewed members of CFA Archaeology Ltd and GMAAS at the site.

In June and July 2015 there was a public display of some of the finds from the St Peter's Church excavation work in the Archive Centre of the adjacent Manchester Central Library, showcasing a snapshot of day-to-day Edwardian Manchester.

St Peter's Cross, marking the position of the altar of St Peter's Church and which had been removed for protection while the work was ongoing, was reinstated within the redeveloped St Peter's Square in 2016 and rededicated in a service led by the Bishop of Manchester, David Walker, in February 2017.

The maiden voyage of the new tram was attended by some of the archaeological team.



*A new nameplate on one of the reburied lead coffins*





*The ceremony marking the maiden voyage of the new tram*



## CONCLUSION

The archaeological work on the Second City Crossing Scheme has provided a fascinating glimpse into the past lives of the nonconformist residents of the City of Manchester and the surrounding area. The Cross Street excavation was the first large post-medieval assemblage of human remains analysed in the North-West and it was an exciting and challenging project for all those involved. The results have contributed to a greater understanding of nonconformist and post-medieval cemeteries in Manchester, successfully correlating the name and age at death data with the archaeological record. Such a large sample of a named group of individuals is quite unusual. The confirmed dates of death have also aided our understanding of changing funerary fashions, pathologies and, more broadly, society at the time.

## GLOSSARY

**Apothecary** – a person who prepared and sold medicines

**Autopsy** – a post-mortem examination to discover the cause of death or extent of a disease

**Bail handle** – a type of curved handle supported by two eyebolts, common in the Victorian period

**Baize** – coarse woollen fabric resembling felt

**Cenotaph** – a monument to erected in honour of a person or group of people who are buried elsewhere

**Crypt** – an underground vault or chamber beneath a church, used as a burial place

**Culvert** – a channel that allows water to flow below a road or similar

**Curate** – a member of the clergy employed as an assistant to a vicar, rector or priest

**Dental plaque** – a sticky film of bacteria and fungi that forms on teeth



**Depositum plate** – name plate set onto a coffin lid

**Diocese** – a district under the pastoral care of a bishop

**Disarticulated** – bones that no longer connect at the joints

**Dissenter** – a member of a non-established Church

**Escutcheon** – a shield-shaped emblem

**Exhumation** – the removal from the ground of the remains of a human being

**Grave goods** – items deliberately buried along with a body

**Grips/grip plate** – handles and the mechanism by which they are attached to the coffin, usually decorative as well as functional

**Industrial revolution** – the period from about 1760-1840, characterised by the rapid development of industry, brought about by the introduction of machinery

**Interred** – the burial of a corpse in a grave

**Jacobite** – a supporter of the exiled King James II and his descendants, a movement that supported the restoration of the House of Stuart to the throne

**Ledger grave marker** – a grave marker stone laid flat which covers the grave

**Liberals** – broad political alliance of the 19th century formed by Whigs, Peelites and radicals

**Nonconformist** – a member of a Protestant church which dissents from the established Church of England

**Ophthalmologist** – medical doctor specialising in eye procedures



**Osteology** – the scientific study of bones

**Osteoporosis** – a condition where bone strength weakens, making them fragile and more likely to break

**Pathology** – the study of the causes and effects of disease or injury

**Penny Lick** – a small glass for serving ice cream, used in the late 19th and early 20th century, usually made with a thick glass base and a shallow depression on top in which the ice cream was placed. Street vendors would sell the contents of the glass for one penny

**Post-medieval** – the period between the medieval and the industrial ages

**Radicals** – movement which arose in the late 18th century to support parliamentary and electoral reform

**Rickets** – a condition that affects bone development in children, it causes bone pain, poor growth and soft, weak bones that can lead to bone deformities, which usually occurs due to a lack of vitamin D or calcium

**Rococo** – furniture or architecture characterised by an elaborately ornamental style of decoration, with asymmetrical patterns involving scrollwork

**Scurvy** – a disease caused by lack of vitamin C

**Shroud** – a cloth used to wrap a body for burial

**Sinusitis** – a common condition in which the lining of the sinuses becomes inflamed



**Tuberculosis** – a contagious bacterial infection spread through inhaling tiny droplets from the coughs or sneezes of an infected person. It mainly affects the lungs

**Transept** – the area of a cruciform church lying at right angles to the principal axis

**Unitarian** – a member of a liberal religious denomination founded upon the doctrine that God is one being, and giving each congregation complete control over its affairs.

**Vault** – an underground structure built to contain coffins

**Victorian period** – the period corresponding roughly to Queen Victoria's reign (1837–1901)

**Watching brief** – the monitoring of construction works by an archaeologist

**Yeomanry** – a volunteer cavalry force created in 1761 from yeomen (a group of men who held and cultivated small landed estates) as a home defence force



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*Copies of the detailed archaeological reports produced have been deposited with the Greater Manchester Historic Environment Record, which is maintained by the Greater Manchester Archaeological Advisory Service (GMAAS).*

*Other pdf volumes in the Greater Manchester's Past Revealed series can be downloaded at*

***<https://diggreatermanchester.wordpress.com/publications>***

*Hard copies of some of these volumes are also available from GMAAS.*

*(email: [gmaas@salford.ac.uk](mailto:gmaas@salford.ac.uk))*



## ACKNOWLEDGEMENTS

The success of the project was thanks to the hard work and effort of numerous individuals and the involvement of many organisations.

The project was funded by Transport for Greater Manchester (TfGM). Particular thanks are extended to Paul Bailey, the TfGM Project Manager, who assisted at every stage and whose interest and enthusiasm helped overcome the many challenges of the project, and who instilled a culture of planning and collaboration between the many stakeholders.

The project would not have been possible without the input of the main contractor M-Pact Thales, the sub-contractor Bethells, Manchester City Council, Manchester Environmental Health, Manchester Southern Cemetery and the Ministry of Justice. Support was also provided by Tony McHale from BGS Exhumation. Thanks also to Erin Lemke and Katherine Belshaw of Manchester Museum of Science and Industry, Rekha Gohil of the Ministry of Justice and Simon Lilleywhite of Lilleywhite Funeral Directors.


The project was monitored on behalf of the Manchester City Council by Andrew Myers and Norman Redhead of Greater Manchester Archaeological Advisory Service. Richard Knightley of Manchester Environmental Health ensured the terms of the exhumation licence issued by the Ministry of Justice were carried out along with compliance with environmental health regulations.

The project was managed for CFA Archaeology Ltd by Martin Lightfoot. The fieldwork was led by Philip Moore and Mark Bell.

Malin Holst and Katie Keefe of York Osteoarchaeology provided expert advice during the fieldwork, identified the skeletal assemblages and, with their team, undertook the processing and analysis of the skeletal remains. Other post-excavation work was undertaken by Philip Mann, Teagan Zoldoske, Gail Drinkall, Sonia O'Connor, Gerry McDonnell, Steven Allen, Vicky Garlick, Ian Panter, Charlotte Wilkinson, Penelope Walton-Rogers, Jamie Walker, Mhairi Hastie, John Tibbles, Chris Cumberpatch, Shelly Werner, York Archaeological Trust and Durham University.

Finally, special thanks to Rev. Cody Coyne and the congregation of Cross Street Chapel, for their patience, interest and understanding throughout the project.





Front page: 1856 drawing by S Langton, copyright Manchester Libraries, Information and Archives, Manchester City Council

The text was prepared by Mark Bell, Melanie Johnson, Malin Holst and Martin Lightfoot, drawing on specialist contributions

Design and Illustrations by Steven McGregor and Rachael Kershaw and Jamie Walker

Produced by CFA Archaeology Ltd

Funded by Transport for Greater Manchester (TfGM)

Published by CFA Archaeology Ltd

Printed by Ivanhoe Caledonian



A programme of archaeological work was undertaken within Manchester city centre during the construction of the Second City Crossing, a new line of the Metrolink. The work included the exposing of the burial vaults and church footings below St Peter's Church, the recording of the remains of a variety of buildings and former tramlines along the route, and an excavation outside the Unitarian Chapel on Cross Street which resulted in the exhumation of over 250 burials.

The Cross Street burials were interred between the early 18th century and the middle of the 19th century. The skeletons were found in both wooden and lead coffins in family grave plots that were marked with gravestones depicting the names, ages and dates of death of the individuals below. From the gravestone information and other corroborative historical information, from various written sources and burial artefacts, 172 skeletons were successfully correlated to named individuals. Osteological analysis of the remains has provided evidence on the health of the congregation buried here.



*A wooden coffin under excavation at Cross Street*



*The team of archaeologists from CFA Archaeology Ltd excavating the graveyard at Cross Street*

ISBN 978-1-5272-8878-2



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