

Secrecy, obscurity, security, obsession:

'Guardian' telecommunications bunker deep under
Manchester city centre and Cold War urbanism



Martin Dodge (University of Manchester)
Richard Brook (Manchester School of Architecture)
RGS-IBG Conference, 29th August 2014

Cold war urban and imperative of survival telecommunications

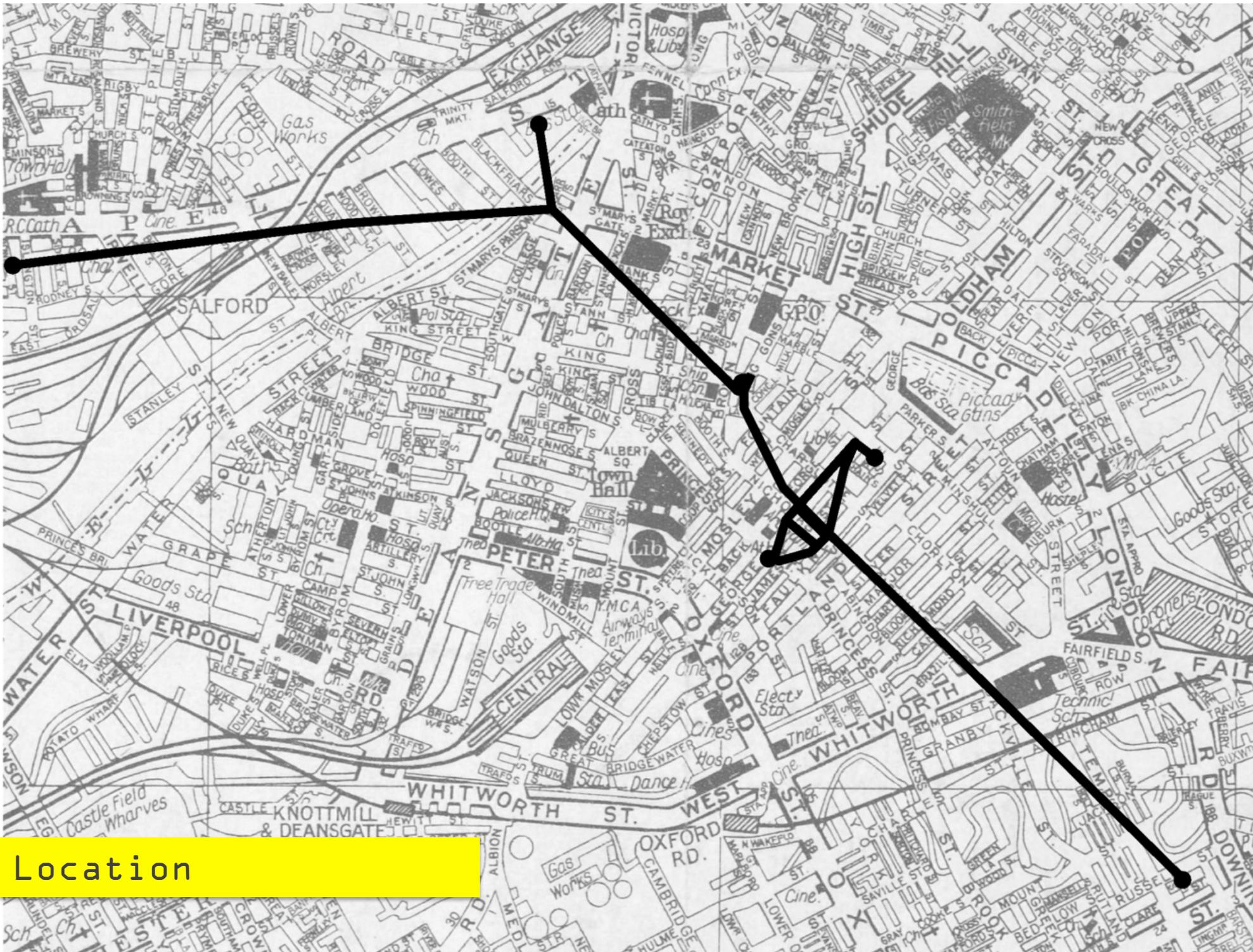
Why did they build deep bunkers for telephone exchanges under city centres in 1950s?

Hugely expensive, at a time of austerity.

We will (re)interpret its meanings through different periods of time and perspectives.

But first, lets see what was built.





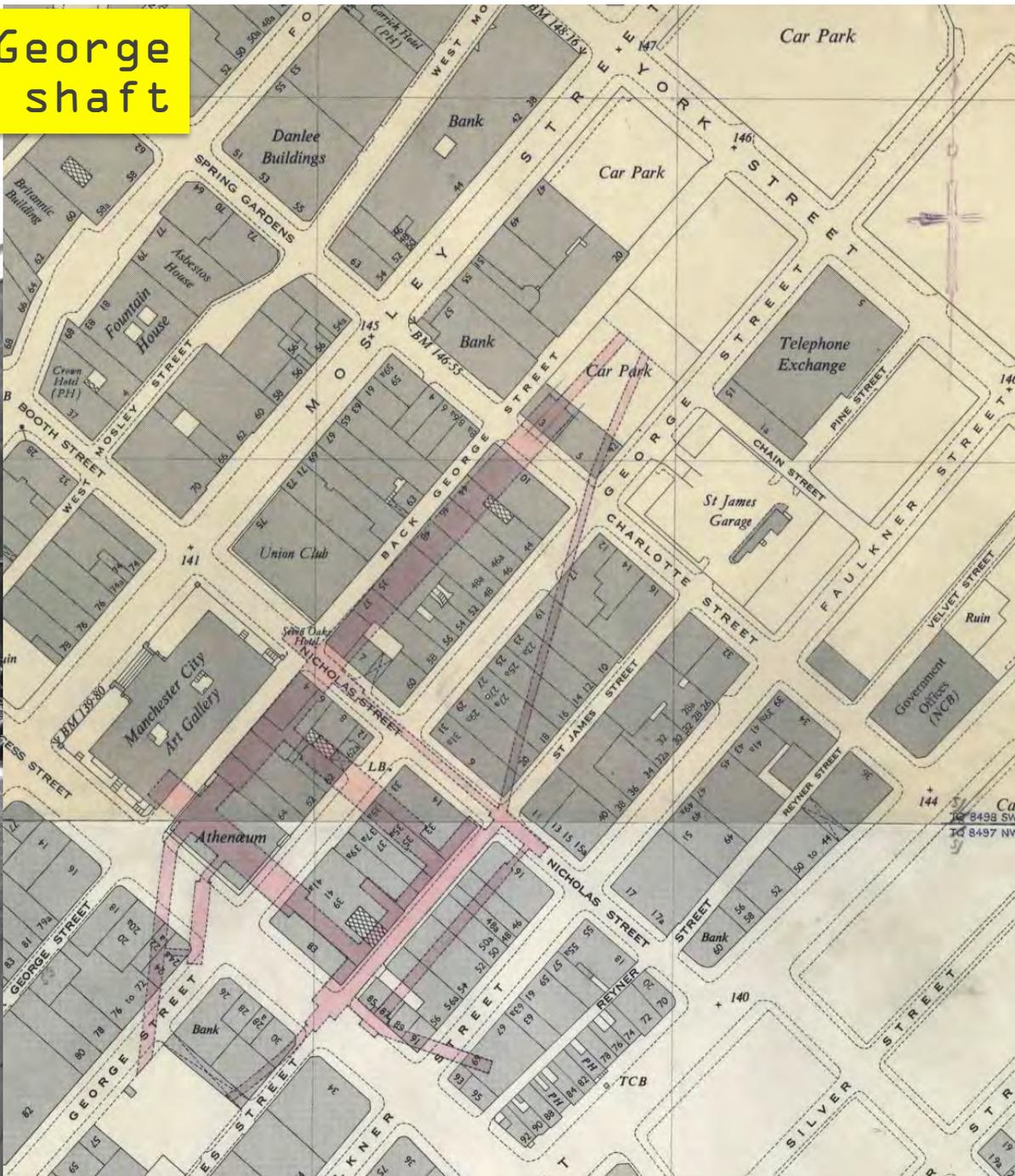
Location



George Street shaft



AT&T. 1956



Central tunnel sections

1950s. Official
secrecy, local
knowledge

The secrecy behind the
Guardian created
speculation that was
deflected by the
government in as 'mundane'
a way as possible.

There are still secrets -
NATO funded, but why? Was
it directly linked to
TATI?

The tunnels were obsolete
in terms of their
resistance to nuclear
weaponry.



CHAPTER 43

An Act to vest in the Postmaster General certain underground works constructed in London, Manchester and Birmingham in the exercise of emergency powers; and for purposes connected therewith. [9th July, 1959]

(THIS DOCUMENT IS THE PROPERTY OF HIS BRITANNIC MAJESTY'S GOVERNMENT)

CONFIDENTIAL

GEN. 379/1

COPY NO 15

7TH SEPTEMBER, 1951

CABINET

POST OFFICE TUNNELS

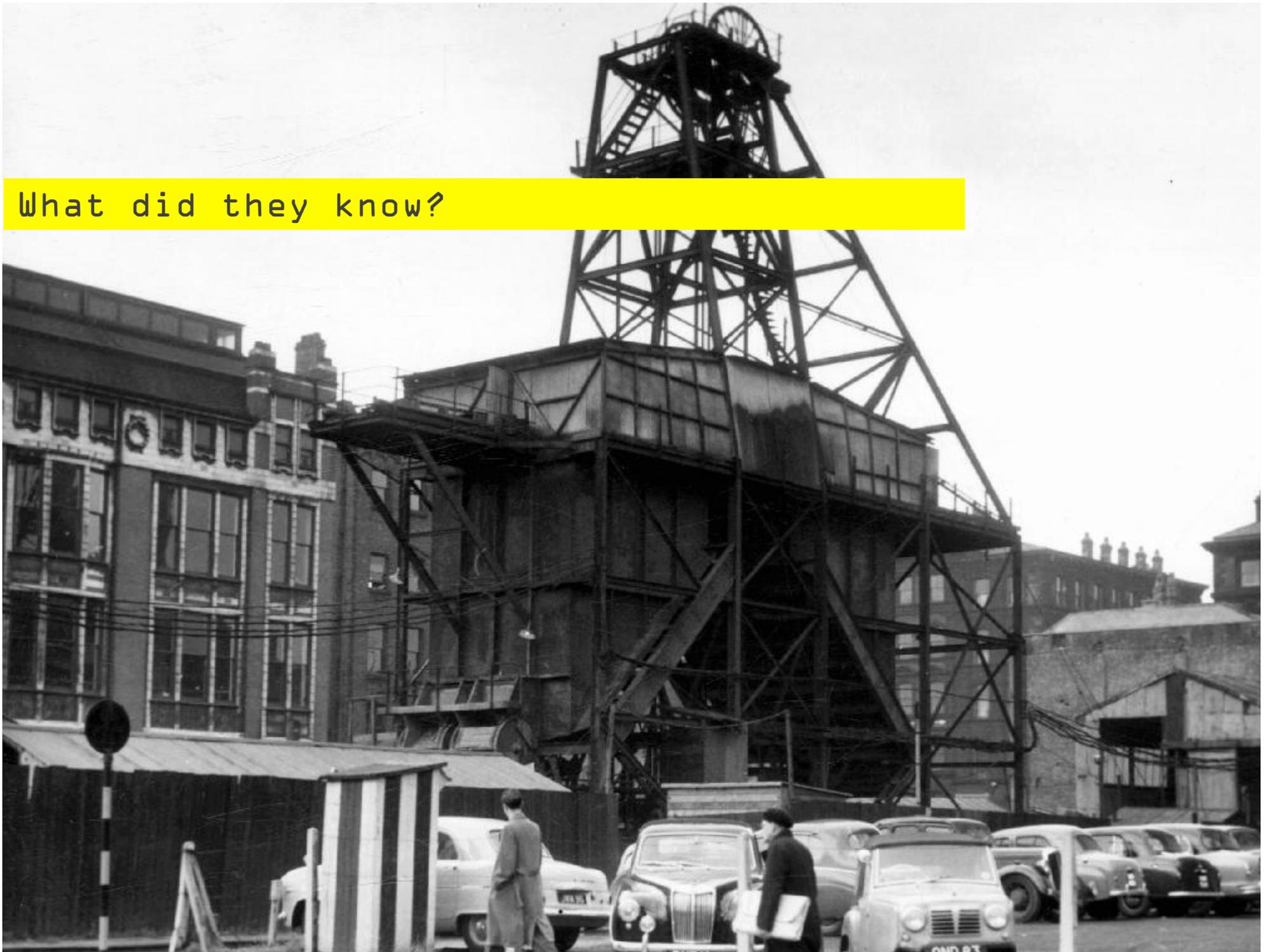
GENERAL POST OFFICE BRIEF

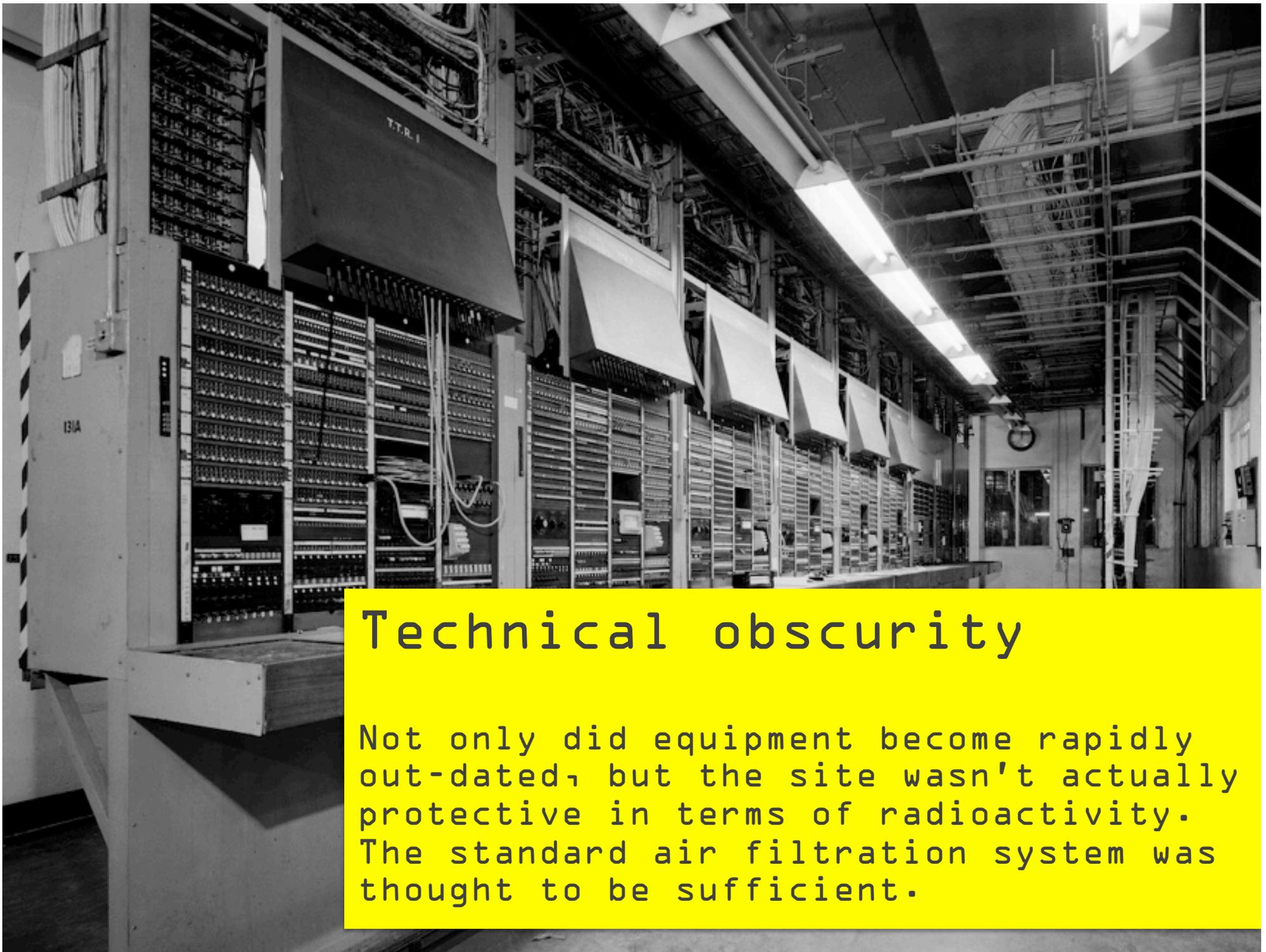
Note by the Secretary

I circulate herewith for information a copy of the brief prepared by the Public Relations Office, General Post Office, in accordance with the conclusions of the meeting held in the Cabinet Office on 6th September (GEN. 379/1st Meeting) together with a copy of his explanatory letter to the Public Relations Officers of the Departments and authorities likely to be concerned.

(Signed) C.J. FELTON

What did they know?





Technical obscurity

Not only did equipment become rapidly out-dated, but the site wasn't actually protective in terms of radioactivity. The standard air filtration system was thought to be sufficient.

City kept ten-year telephone 'secret'

By MICHAEL MORRIS

For 10 years, an emergency trunk telephone exchange has been secretly operating beneath the centre of Manchester. It has cost between £3 millions and £4 millions.

The announcement yesterday of the existence of an elaborate system dispelled rumours, which had persisted for years, that visible deep pile driving had been part of the building of an atomic shelter.

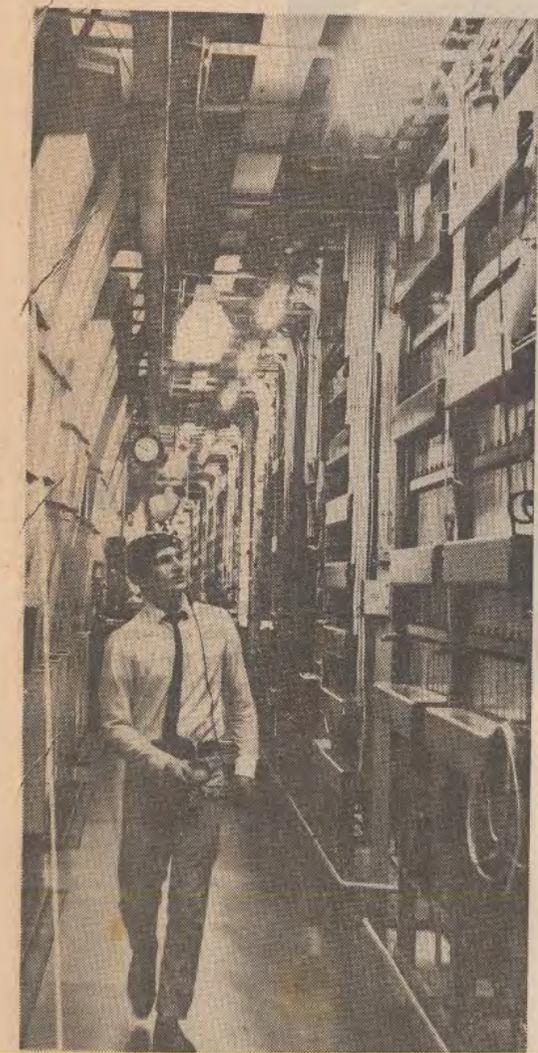
Mr Stonehouse, Postmaster-General, said in Manchester that it had been one of the city's best kept secrets. Silence had been necessary for defence reasons. He was opening a surface trunk exchange which will relieve the underground installation of some duties.

Service protected

Later, a GPO spokesman said the exchange, known as "Guardian," was built 150 feet underground, near Piccadilly, so that the trunk service would be protected in an emergency. It could be sealed off, and had living accommodation for the staff, and food and water supplies.

The exchange, on which construction began in 1954, was carrying trunk traffic at the end of 1958. It is reached by walking 50 steps into the basement of the new Rutherford surface exchange, and taking a 30-second lift ride.

A main tunnel 1,000 feet long and 25 feet wide, stretches from below Piccadilly Plaza towards Oxford Road. This contains the equipment, providing 2,000 trunk circuits. Cables from the



TODAY THE BIG SECRET IS OUT

PICTURE

Manchester's mystery tunnellers

VITAL PHONE LINK IF AN A-BOMB HAD EVER FALLEN ON THE CITY

TODAY ends mystery and rumour that has swept and puzzled Manchester for the past 14 years—the secret of the city's "underground."

The story started way back in 1954 when contractors on a bombed site in Piccadilly began to burrow deep into the earth—much deeper than normal foundation work would take them.

This soon aroused the curiosity of passers-by and the Press, but any approach to the excavations was met by a curtain of silence from security men.

It was known that the work was being carried out for the Post Office, who spoke vaguely of "underground works."

More unexplained incidents added to the mystery. A seismograph at Manchester University picked up tremors from an underground explosion.

Said the Post Office to the University with stamp-counter aloofness: "We are

going to some pains to preserve discreet silence."

Rumour had it that the diggings were for a gigantic letter chute direct from Spring Gardens to Piccadilly Station (London Road, as it then was).

Or perhaps nothing to do with the Post Office at all but simply extensions to Bradford Colliery, it was pronounced with confidential authority and a knowing wink at more than one bar counter.

Well, as it turns out it really was very much to do with the Post Office—with a hint of James Bond and Dr Who for flavour.

Manchester's mystery underground is in fact a massive £4M subterranean telephone exchange, 150 feet below street level, built in case the city ever suffered an atom-bomb attack. Now it's out of date, because there's a new weapon called the hydrogen bomb.

Story by KEITH WARD: Pictures by JOHN FOWLER

Now it's a 'casualty' of the cold war

MANCHESTER'S £4M underground telephone exchange is approximately the shape of a cross, the upright a main tunnel running from Piccadilly to Oxford Street, near the Odeon cinema, roughly along the line of George Street.

Measuring 25 feet across, it houses in its 1,000 feet length the bulk of a million pounds worth of telephone equipment.

in the opposite direction to Islington Street, Salford.

The equipment, comprising about 2,000 trunk circuits, is ordinary. But its situation gave it an exceptional role in the event of an atom-bomb attack on Britain.

VITAL LINK

Designed at the height of the cold war in the early 1950s, it would be bomb-proof because of its depth underground and would therefore survive as a vital link, after the holocaust of an A-bomb attack on the city, in the country's communications

to help pick up the pieces of post-atomic-war Britain.

During a tour of Manchester's "guardian" exchange, as it is called, I caught a glimpse of what it would have meant to live through such a war as a telephone engineer, a job that could have been a passport to life, after death for millions of others.

IN A YARD

There are five entrances to the tunnel system. A main shaft, sunk from an ordinary-looking brick-walled yard in George Street, near the Odeon cinema, 112 feet into the

a continuous problem of age through the walls of tunnels.

WEAK PATCH

Constant inspection is sary. Even so maintenance men have had to wade the waist-deep water to replace weak patch. Is it worth ing "guardian" open?

Say the Post Office: total cost of running it pared with the massive venience and cost we have to go to to replace the surface would be sn

So the secret is re because it is no longer

Guardian revealed in the press. 1968

1968 off the Official Secret Act, but still secret!
1970s Picc-Vic personnel had to sign confidentiality clauses.

The exchange was operational, but not 'secure'.
As well as newspaper 'release' Peter Laurie's revealing book was published.

Who was responsible for allowing information into the public domain?



The Picc-Vic Project

GMC 



COLD WAR

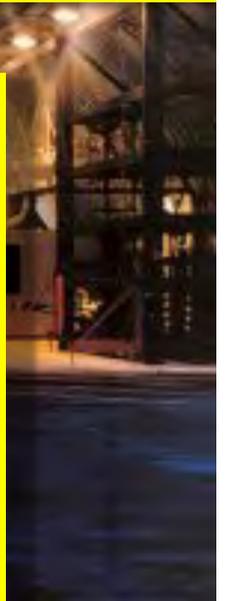
Building for Nuclear Confrontation 1946-1989

Wayne D Cocroft and Roger J C Thomas
Edited by P S Barnwell

Decline in
significance
• Documented
by others

1980s/1990s period of decline.
Several known tours and semi-official visits.

Personal & catalogued, English Heritage appraisal,
Hogshawrabbits video documentation, Civic Society,
etc.



Going underground

Network of nuclear bunkers go up for rent



● Tunnel network: An engineer checks the cables in the photograph taken in the 1970s

Bunkers for sale.

Unwanted asset. Videos online and estate agents brochures promoting their re-use.

them. In the event of an atomic bomb, the tunnels would be used to maintain vital telecommunication networks to other cities across the UK, even if Manchester had been flattened. But now, the tunnels are seeing some of the most fevered activity since they were built. Tunnel owners BT are looking to rent out some of the 250-wide sections of the underground kingdom and have started a massive refurbishment programme to ensure that the tunnels are safe for workers, or any

company wishing to take the unique city space. "It will be available to rent commercially in March," said a BT spokesman. "There have been no interests expressed from commercial ventures as yet, so BT may choose to use the space itself for their own purposes once the refurbishment is complete." George Conroy from Charlton, runs a website on the tunnels and says they should now be opened to the public — and made into a museum dedicated to Cold War history.

recent history so that past mistakes are not repeated. "Alternatively the exchann could be converted into an interesting venue for a club or bar for some entrepreneurs." BT have been unable to open the site to the public for many years because of security reasons, and also safety with traces of asbestos in the tunnel. The entrances to the tunnels are surrounded by barbed wire fencing and security gates.



● Going down: The entrance in the bunker at Green Street

PHONE CRISIS: British Telecom makes pledge

Securitized critical infrastructure

Underground becomes a threat space,

Deterioration of physical fabric, Urbex infiltrations.

April 2004 fire - new level of physical security of entrances.



HARD AT WORK: Some of the engineers in the tunnel 30 metres underground where the blaze broke out

It should all be over now

caused by the fire underneath the junction of George Street and Princess Street, and also working on a

as and does connecting Street and on around

f the traffic

ing to cut the number of affected businesses, organisations and families to zero by today (Friday).

BT issued 200 mobile phones to people cut off and in desperate need to communicate.

It will face pressure to compensate customers.

At the BBC in Oxford Road 800 staff were without working phones.

MetroLink was only running half the number of trams it should be, with services every 12 minutes instead of every six, causing commuter problems.

Paul Reynolds, BT Wholesale chief executive, said sprinklers were "ineffective" in deep tunnels and said

anti-fire measures had limited the spread of damage to just 10m.

Mr Reynolds said: "It is a big regret that thousands of communities have been affected - it must be dreadful for them and I understand why they are asking questions.

"The impact on families and businesses caused by Monday's fire in our deep tunnel under the city centre is unprecedented.

"All I can say is that we have been

working flat out to get services back as quickly as we can.

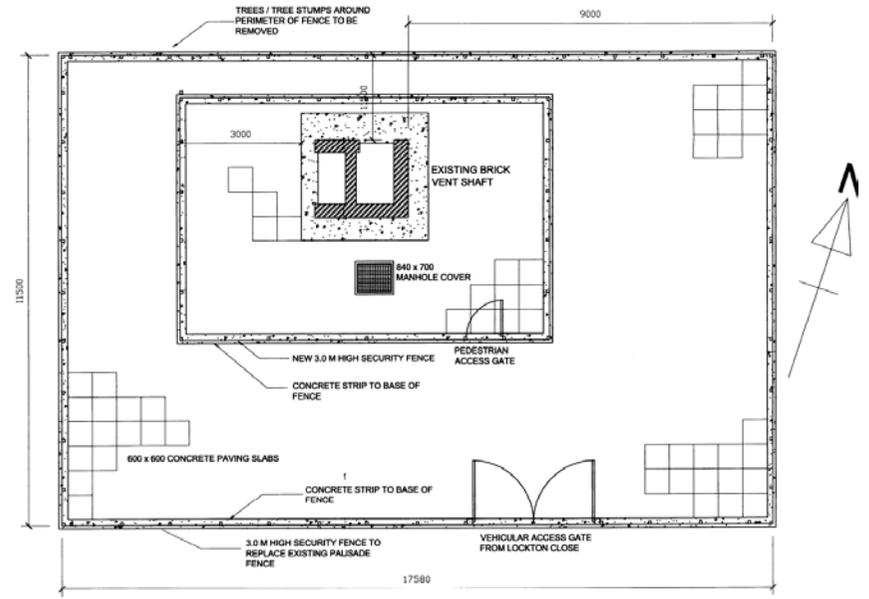
"If someone had said to me that this fire could happen, I would not have been surprised about the number of cables affected, but I never expected this to happen."

Neither did thousands of people in Greater Manchester and beyond who have had their phone lines, e-mail, fax and payment systems wiped out by the fire.

Cllr Richard Leese, leader of Manchester Council, said: "There are two issues - the disruption to business and to people's everyday lives, and also the fact that people were working down there from time to time and there must be an issue about whether it was safe.

"The question is what was their Plan B if something like this happened, and they do not appear to have had one."





SITE PLAN 1:50

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THE WORLD'S MOST SECRET LOCATIONS



39 Guardian Telephone Exchange

LOCATION Subterranean **Manchester**, Lancashire, England

NEAREST POPULATION HUB **Manchester**

SECURITY OVERVIEW Access restricted: a long-secret communications network beneath the city streets.

Originally constructed in the 1950s during the Cold War, this complex of underground tunnels was designed with a view to safeguarding communications in the event of a nuclear strike. It mirrored similar enterprises undertaken in other major British cities such as London and Birmingham. Today the tunnels house a vast network of **telephone** cabling, though rumours about the Exchange's exact status continue.

The tunnels that housed the **Exchange** are thought to cover around 3 kilometres (1.8 miles), stretching from Manchester's city centre to the Ardwick and Salford areas. The complex was built in 1954 by a

Elevated to Holy Grail status for urban explorers

What we still don't know



We've not been into the Guardian. Indeed all our polite enquires to BT and others have been ignored. Low profile but the George St. compound still holds secrets.

The expenditure on the project was huge and seemingly not justified by the ends...

Post Office and Telecoms in the 'Warfare State'...

Computers, technology education, nuclear energy research, telecommunications, 'high-tech' weapons manufacture all in/around Manchester in the 1950s...

Further reading:

- R. Brook and M. Dodge, *Infra_MANC: Post-war Infrastructures of Manchester* (Bauprint: Manchester, 2012), chapter 4. Available online at, http://issuu.com/cyberbadger/docs/infra_manc_catalogue

Image references:

- Slide 1: Blast door at the entrance to main exchange area. Source: Photograph by Tony Perry, English Heritage, 1988 ref. AA98/02423.
- Slide 2: View of racks of telecommunications equipment being installed in the top half of the main Apparatus Tunnel 8 in April 1958. Source: tunnel engineer Patrick Gough, courtesy of George Coney.
- Slide 3: The extents of the Guardian tunnel network under Manchester city centre. Source: Authors compilation; map drawn by Graham Bowden, Cartography Unit, University of Manchester.
- Slide 4: Photographs: (top) the service building at 56 George Street, Manchester, dated November 1960; (bottom) the main equipment tunnel, which was divided to created two working levels, March 1956. Source: tunnel engineer Patrick Gough, courtesy of George Coney. Street plan: HM Land Registry records, ref. GM728631, courtesy of Ben Jenkinson.

- Slide 5: (top) title page of Act of Parliament that legalised the construction of the Guardian exchange. (bottom) minutes of government discussions on the secrecy of the construction of the Post Office tunnels, source: National Archives, CAB130/71.
- Slide 6: View of the prominent headgear located at Piccadilly needed to winch men and materials to the GUTE tunnel workings. The façade of the exchange at York House, York Street, is to the left of the image. Source: Photograph by A. Dawson, 1955. Courtesy of Manchester Archives and Local Studies, ref. m56369.
- Slide 7: The test switchboard equipment in the Guardian exchange. Source: Photograph by Tony Perry, English Heritage, 1988 ref. AA98/02416.
- Slide 8: (left) *Guardian* newspaper, 8 October 1968, p. 4. (right) *Manchester Evening News and Chronicle*, 7 October 1967, p. 5.
- Slide 9: Cover of report on *The Picc-Vic Project* (Greater Manchester Council and Greater Manchester Transport, 1975).
- Slide 10: (bottom left) an urban explorer in Guardian exchange, photography courtesy of George Coney. (top left) author screenshot from the unofficial video tour of the Guardian exchange by 'Hogshawrabbits'. (right) book cover of *Cold War: Building for Nuclear Confrontation 1946-1989*.
- Slide 11: *Metro News*, 1 February 2002, scan courtesy of George Coney.
- Slide 12: *Manchester Metro News*, 2 April 2004, scan courtesy of George Coney.

- Slide 13: (block of four photographs) The small surface buildings at the top of cable tunnel as originally constructed, at Lockton Close, Ardwick, Manchester and Islington Street, Salford. Courtesy of George Coney. The same locations after being rebuilt and secured in 2005-7. Courtesy of Richard Brook. (top right) Details from the planning application for Lockton Close access shaft from April 2006, ref. 079156/FO/2006/N2. Available through the Public Access System, <<http://pa.manchester.gov.uk>>. (bottom right) The reconstruction of Lockton Close access shaft to the cable tunnel to the Guardian exchange, photography by Rob Greaves, courtesy of George Coney.
- Slide 14: Book cover of *100 Places You Will Never Visit*. Google Books showing the page featuring the Guardian telephone exchange.
- Slide 15: View along the main pedestrian tunnel into the Guardian exchange. Source: Photograph by Tony Perry, English Heritage, 1988 ref. AA98/02422.