Cold War Urbanism
The Challenge of Survivable City Infrastructure

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• Post-war, atomic age Britain, but deep austerity and imperial decline
• 1949 shock of speed of Soviet atom bomb development
• ‘Civil defence was about the preservation of Government (the State) and not about protecting the general populous’
• Essential national infrastructure
• Urban planning, architecture / design, structural engineering, the techno-scientific bureaucracies
• Speaking here, we might speculate on the role of geographers and the RGS.....
What do we mean by urbanism? Summation of the forces shaping urban space and how people experience city life.

Yet as Henri Lefebvre notes:

*Urbanism . . . masks a situation. It conceals operations. It blocks a view of the horizon, a path to urban knowledge and practice. It accompanies the decline of the spontaneous city and the historical urban core. It implies the intervention of power more than that of understanding. Its only coherence, its only logic, is that of the state – the void. The state can only separate, disperse, hollow out vast voids, the squares and avenues built in its own image – an image of force and restraint.*

Urbanism in the 1950s and 60s as a military project

The city the primary site of war

Urban population and aerial bombing, the WWII blitz experiences, showed how vulnerable civilians were

City centre target of single atom bomb (Hiroshima)

Metropolitan wide megaton devastation of the thermonuclear weapon by late 1950s

Nuclear war is about deterrence, which in turn is about planning for a survivable nation

Cold war urbanism – imagining, designing, planning and building for the bomb and its aftermath
Spatio-architectural autopsy of dead city
Cold War Urbanism
A research agenda

- Telling the technical histories
- Uncovering the logics, document discourse and plans; explaining the agenda of developments
- Mapping the spatial networks and operational space of physical infrastructure
- (In)visibility | hidden in plain sight
- Proposed, unrealised and unbuilt, e.g. shelters
- Co-opting civil infrastructural into service for strategic and military usage
- Industrial systems brought into being to produce strategic weapons
- Exploring and exposing the atomic imperative across many other registers: economic, legal, cultural, education, personal
The imperative of survivable communication

- Why did they build deep bunkers for telephone exchanges under several British city centres in 1950s?
- Hugely expensive, at a time of austerity
- Reference frame was WW2 blitz and recovery
- The inertia of installed infrastructure. Vital national networks physically converged on vulnerable city centres
Scheme 567 construction
a lot of effort expended
- Cloak of classified space
- Default of the State
- Hides waste and incompetence
- Klaus Fuchs and the Cambridge Spies – Soviets knew it all...
(In)visibility
Hidden in plain sight
Mr Chuter Ede [Home Secretary] making a statement on civil defence to House of Commons “…It will not be possible to provide shelter on any significant scale without making heavy calls on labour and materials much needed for other purposes.”

[Source: “Local surveys the first stage in air-raid shelter plans”, Guardian, 10 November 1950]
3. The following are the main projects provided for in the £137 million of Category I expenditure:

   (a) Recruitment and training of volunteers for the Civil Defence Services.
   (b) Emergency feeding arrangements.
   (c) Telecommunications.
   (d) Civil defence war rooms.
   (e) A small amount of hospital building.
   (f) The civil warning system.
   (g) Production of new respirators for the general population.
   (h) Protected accommodation at Government buildings.
   (i) A beginning with arrangements to ensure the maintenance (or “due functioning”) of essential services (railways, gas, electricity, &c.) in war.

As regards the remainder of the field, the programme makes no provision for anything except paper planning, and accordingly it would not provide for equipment for the enlarged Fire Service and other Civil Defence Services, for emergency water supplies, for shelter for the public or industry, for buildings for rest centres, for equipment for hospitals, the homeless and evacuees, or for black-out; and the provision made for hospital building and for the maintenance of essential services is too small to have any great significance.
The City Engineer in Manchester diligently conducted a survey ..., and then little or nothing seemed to happen regarding shelters.
A viable shelter? or a tomb when the 118m tower above collapses..
Bert the Turtle says "Duck and Cover" * Star of the Official U.S. Civil Defense Film "Duck and Cover"

Federal Civil Defense Administration

So, like Bert, you DUCK to avoid the things flying through the air...

IF YOU THINK IT'S HOPELESS, YOU'RE WRONG

Civil Defence Recruiting Drives are going on now, all over the country. Their object is to tell you all about Civil Defence—what it can do, what it is doing and what there is in it for you.

CIVIL DEFENCE is common sense

Go to your Council Offices and ask today. They will be glad to see you.
Cold War construction
Civil engineering and architectural aesthetics

- Aesthetics were engineering and camouflage driven
- Blast tests called to question the reality of man-made structures surviving detonation
Cold War construction
Civil engineering and architectural aesthetics

- BT Tower
- Kelvedon Hatch
Situating the military-industrial complex

• Economic drivers of Cold War urbanism evident in strategic projects that required specialised facilities for research, testing and industrial production
• Computer cluster in Manchester
• There is a need to understand spatial position, flow of material and architectural forms | Was it planned, or opportunistic on the part of technology manufacturers?
• The role of the computation and the computer in relation to military objectives and civil applications – industry too was hidden in plain sight
Planning for the ‘End of the World’
Dispersing the city

• How far did ‘doomsday’ scenarios and metrics of nuclear destruction come to influence strategic planning of cities?
• Was planning philosophy and modern land-use practice driven by dystopian avoidance?
• Expolis, suburban sprawl and multi-lane expressways, car-based consumerism, edge development, economic dispersal, lower residential densities
Approaching the bunker:

Effect, materiality and meaning-making in Cold War rants

A proposal for an interdisciplinary essay collection in the "Place, Memory, Afford" series.
To be edited by Luke Bennett of Sheffield Hallam University.

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Image references:

- **Slide 1**: Diagrammatic map of the effects of nuclear blasts on Greater Manchester from ‘Emergency Planning and Nuclear War in Greater Manchester’, booklet published by MUND Manchester University Staff Nuclear Disarmament Group and Greater Manchester Council, circa. 1983.

- **Slide 2**: Photograph of the Trinity atomic test, 16 July 1945. Source: http://www.atomicarchive.com/Photos/Trinity/image7.shtml

- **Slide 3**: Promotional illustration for 2015 exhibition *Churchill’s Scientists* at the Science Museum in London. Source: http://www.sciencemuseum.org.uk/visitmuseum/Plan_your_visit/exhibitions/churchills-scientists.aspx

- **Slide 4**: View of the mushroom cloud above Hiroshima after the atomic bomb on 6 August 1945. Photograph taken by crew of the Enola Gay. Source: http://www.atomicarchive.com/Photos/Hiroshima/image1.shtml


- **Slide 8**: View of racks of telecommunications equipment being installed in the top half of the main Apparatus Tunnel 8 of the Guardian underground telephone exchange in Manchester, April 1958. Source: tunnel engineer Patrick Gough, courtesy of George Coney.
• *Slide 9*: Left, safeguarding maps showing the approximate extents of the 1950s era underground telephone exchanges built in central Birmingham (Scheme 526, Anchor) and in central London (Scheme 2147, Kingsway). Source: BT Archives, ref. POST 122/1049.


• *Slide 10*: Photographs documenting tunnel construction for the Guardian underground telephone exchange (Scheme 567) in Manchester, January and February 1955. Source: BT Archive, ref. TCB 417/E19882; E19982.

• *Slide 11*: Photograph documenting tunnel construction for the Guardian underground telephone exchange (Scheme 567) in Manchester, 1955. Source: BT Archive, ref. TCB 417/E20315.

• *Slide 12*: View along the main apparatus tunnel prior to equipment installation in the Guardian underground telephone exchange (Scheme 567) in Manchester, 1956. Source: BT Archive, ref. TCB 417/E21572.

• *Slide 13*: View of backup electrical generation equipment installed the Guardian underground telephone exchange (Scheme 567) in Manchester, 1959. Source: BT Archive, ref. TCB 417/E24044.

• *Slide 14*: Newspaper clipping included in Cabinet files discussing the secrecy of the construction of the Post Office tunnels. Source: National Archives, CAB21/3999.
• Slide 15: Map ‘Backbone & Standby Radio Links’ from GPO briefing paper to the Cabinet, July 1956. Source National Archives, CAB 134/1207.
• Photograph of the Heaton Park microwave tower. Source: BT Archive, ref. TCB 417/E33223.
• Slide 17: Extract from Cabinet briefing paper ‘Civil Defence Preparation’, 18 January 1951. Source: National Archives, ref. CAB 129/44.
• Slide 18: Extract from survey list ‘Public basement shelters in steel framed & reinforced concrete buildings’, 1951. Source: Manchester City Archives, ref. miscellaneous Wood Street material Box 7 2012/33
• Slide 19: Architectural section of the CIS tower building, Manchester, 1958. Source: author scan from City Engineers microcard, ref. 3925/_/6, Courtesy of Manchester City Archives.
• Slide 20: Extract from architectural section of the CIS tower building showing the location of basement shelter. Source: author scan from City Engineers microcard, ref. 3925/_/6, Courtesy of Manchester City Archives.
• Right, author edited extract from British civil defence poster, ‘If you think it’s hopeless, you’re wrong’, cartoon by Leslie Illingworth, 1957. Source: National Archives, ref. INF 2/122.


Slide 23: Left, photograph of BT Tower in London, date not known. Source: unrecorded online source.


Slide 24: Photograph of the entrance gatehouse to the Ferranti factory in Wythenshawe Manchester, 1955. Source: author scan from original in the Cruikshank and Seward archive, courtesy of Fairhurst Design Group.