Bomb damage, opportunity and rebuilding in post-war Britain

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Introduction: bombing, mapping and damage

Although others in this conference have spoken about mapping bombing,[i] I feel that we need to consider the damage and its mapping, the planning and reconstruction response, and how these are communicated via mapping (and other images) together. I will also consider some plans for unbombed UK towns, as they were heavily influenced by plans for reconstructing bombed towns, and were often written at the same time by the same consultants. So I will start with suggesting that some of this mapping and imagery was, essentially, propaganda. The well-known image of Coventry's damage is particularly so as it is the actual map prepared for public exhibition, surviving in the city's archive complete with drawing-pin holes. Destroyed buildings are shown in red, perhaps for psychological effect. But it also raises the question of how "destroyed" was identified.

Bath was subject to relatively small raids, the 1942 "Baedecker raids" on historic towns. The contemporary mapping of damage is more sophisticated, with categories ranging from "totally destroyed" in pink to "slight damage" and "glass only" in brown and grey. Nevertheless it seems as if a relatively small raid has inflicted damage on virtually every building in the town. Is this believable? How were the categories differentiated? This has been explored for London but much less is known about other cities.

And, although there was much very detailed recording of bombs and damage at the time (ARP [Air Raid Precautions] maps), it seems that not all has been retained in local, regional or national archives. Hence there have been attempts to plot damage - or at least the location of bombs - on modern maps, with varying degrees of apparent accuracy. But the number of unexpected unexploded bombs still being discovered in developments every year suggests some lack of accuracy!

Thinking about the damage reminds us that - for some built environment professionals if not for those whose towns and homes were damaged, the bombing was seen as an opportunity for, to use today's phrase, building back better. Rubble was cleared pretty quickly in the UK, and extensive bomb sites persisted in the urban landscape for decades. In bombed towns they became the norm, places for children's play, for food growing or even relaxation. Even in the late 1950s official (Ordnance Survey) mapping was showing extensive cleared sites, some still marked as "ruins", as my crude mapping of central Sheffield shows. One site here, built over in the 1930s map, is labelled "municipal car park" as was probably a bomb site - the well-known company NCP (National Car Parks) was formed on the basis of taking cheap leases of bombsites for use as surface car parks and, while many have been redeveloped, some still persist.

After the war came consideration of who would finance rebuilding, and bombed towns could apply to central government for funding under the War Damage Act. Unsurprisingly most towns identified extensive areas of damage, particularly when communicating to their residents. They had to be more precise when submitting claims, accompanied by precise maps, to the government. Unsurprisingly, too, in many cases the government assessment was much smaller than locals suggested. Liverpool's claim was reduced to less than one-fifth and neighbouring Birkenhead was included in the new total. National Archive files show the amount of such reductions but not the process - this seems to have been delegated to

personal assessment by the Ministry's Regional Planning Officers. And another potential confusion came in the drawing-together of data and mapping for both bomb damage and slum clearance, pushed for by many cities with major slum-clearance problems such as Birmingham, and allowed by the first replanning legislation, the 1944 Town and Country Planning Act, widely known as the "Blitz and Blight Act".

Mapping the reconstruction

Conceptualising, mapping and representing the reconstruction bring other problems. As the clearance was so often held to be an opportunity, reconstruction planners (often architects or surveyors) could start from first principles, as did Coventry's city architect Donald Gibson in public lectures. His ideal circular city model, with echoes of Howard's famous garden city diagrams perhaps, was then applied to Coventry. A more practical, but still idealistic, plan representation was the iconic image of redesigned Plymouth. Comprehensive clearance allowed a wholly new town centre to be designed, a very formal (nearly) symmetrical beaux-arts conception only marginally adapted to meet surrounding undamaged areas. Its representation in the same document as a "functional diagram" is interesting in that the messy reality of topography and development is squeezed into an even more ideal geometrical representation.

Most reconstruction plans produced between 1941 and about 1950 were very well illustrated. The consultant planner Thomas Sharp, Royal Town Planning Institute President in 1946 and author of about 10 such plans, provides a good example in his Exeter plan. We've seen the bomb damage and slum clearance map already. Exeter is dominated by roads and linear development forms which, both in plan and some as built, were typical of the time and caricatured as "toothpaste architecture" - squeezed out of a tube and cut to the desired length. Yet Sharp was concerned to get the plan right, and he did not design the actual buildings nor allow illustrations in his plans to suggest anything other than building location and approximate scale. But many misunderstood, and criticised, such representations.

Most plans used road proposals to provide an armature for areas, being more concerned with land uses - and their segregation - or with priorities and the phasing of redevelopment. The latter was important as, notwithstanding extent or severity of damage, many of these plans were considering implementation over anything from 20 to 50 years.

Another potential problem with replanning was the sheer number of plans for some places, although of course London is rather exceptional. But there were often various official plans; unofficial proposals by local groups or individuals, sometimes mediated by the mass media; some practicable and others idealistic and impracticable. Coventry, for example, had a shopping centre proposal from the Chamber of Commerce, drawn up by Woolworths' company architect. It's interesting to look at this geometric perfection and compare it with the Plymouth beaux arts symmetry and Gibson's idealised circle diagrams also for Coventy; but also to wonder how practical this would be. But the perimeter-block shops (also narrow 'toothpaste architecture) and interior service courtyards became common. Also for Coventry, because it has an unusually full archive from the period, we can see the numerous versions of proposals between 1941 and the late 1940s. Some differed in relatively small details; in some there are taped movable overlays seemingly demonstrating options. The conflicts between Gibson as the new radical city architect, and the long-serving city engineer Ernest Ford, are well known; but once resolved there were further conflicts between the city's plans and the Ministry's new "planning technique" section, which seemed to be using this mass of proposals to formulate new approaches to planning and then insist on their nationwide application. We'll come back to this.

Many plans focus on particular themes, of which infrastructure, and specifically road improvement proposals, was most common. Vehicular traffic was increasing, hence roads were to be widened, straightened, and ring roads provided. This is as true for smaller unbombed towns such as Salisbury, which were jumping on the reconstruction bandwaggon, not wishing to be left behind in the new postwar urban hierarchy and economy. It's interesting to compare the Coventry highway engineer's plan, of wide and straighter roads, with Sharp's planner's plan for Salisbury, reflecting the historic environment and having all major junctions as roundabouts. But neither were built in this form.

Relating the bomb damage to the rebuilding, and particularly to all these new road proposals, it is commonly suggested that the location of damage shaped the location of new roads. But this does not seem to be a particularly strong relationship in Liverpool. It may be slightly stronger in Birmingham, where I have heard that suggestion many times - but again I would suggest that the relationship is not overwhelmingly convincing.

Most of what I have discussed and shown so far are from reconstruction plans drawn up during or immediately after the war, and I have alluded to disagreements between local authorities and the Ministry's emerging attitude to planning. The 1947 Town and Country Planning Act introduced new requirements for planning, plan production and even map production - content, symbols and even colours. So the plans and their maps produced after this Act took effect in 1948 came to be very different from the earlier reconstruction plans. They were more technical, even technocentric; less clearly illustrated for a public readership, and hence poorer communication of planning ideas. This may be even more true when, as in this example from Hull, the formal map has to be "much simplified" for public publication.

Not only was communication a problem, but so was implementation. The UK's financial position was poor, and some rationing, including of building materials, continued until 1954-55. The widespread promotion of the early reconstruction plans led to public expectations of development; which were rarely met as the realities of finance, land ownership, and replanning intervened. Even in the worst-bombed cities such as Coventry, progress was slow and original plans much changed. Most of these plans were not implemented, although some had enduring impact on subsequent planning or even civic memory (as I found when researching the impact of Sharp's plan for Chichester). Part of the implementation perception problem may have been caused by the radical nature of many proposals: fashions were changing, international Modernism was sweeping in, and rebuilt cities (and the new towns of the period) were to be efficient, high-speed, machines for living. The old was to be swept away if it had not been bombed away. There seemed little scope for individuality and character in these new neighbourhoods - though inertia saved Birmingham's Jewellery quarter, with only one of the 'flatted factories' being built.

Conclusion - the 'morphological frame'?

This leads to a concluding discussion on the ideas and efforts of the reconstruction period, between the start of bombing in 1940 (in the UK) and the end of rebuilding with the 1973 Middle East war and oil crisis. The idea that there is a 'morphological frame', which constrains redevelopment, emerged from studies of smaller English towns, relatively little touched by large-scale industrial development or war damage. The different pressures of large cities and catastrophe test this idea.

Worcester's 1946 plan shows considerable road widening, inevitably implying building redevelopment, over about 50 years. New buildings were to be much larger boxes, albeit depicted as clad in familiar local red brick, and familiarity was also emphasised in the renderings with clothing and car design. Some of the street framework world survive in

name and basic alignment, but not necessarily in detail or in the actual buildings lining the streets.

Medieval and Georgian Bath would largely survive, as the worst of the damage - both blitz and blight - was to the south and west, and these areas would be completely replanned. Improvement Acts of 1925 and 1937 had already sanctioned some reconstruction here, though little had been completed. The morphological frame of much of what is protected now would be retained, though with some changes such as the surprising conversion of much of the Royal Crescent, a Georgian set-piece of which one house had been bombed, into a civic centre. The design options presented for the proposed new concert hall show the flexibility of the plan towards building design, as opposed to the inflexibility of its traffic engineering.

As a final example, the York plan also retained most of the walled city, but immediately outside the walls the existing pattern of streets, plots and buildings was to be replaced by a green belt containing a ring road and some public buildings. This would make the monument of the city wall much more visible, a tactic known in the US as 'disencumbering' a monument, albeit by sweeping away an equally valid history of encroachment and densification.

So the bomb mapping was a technical, and sometimes propaganda, tool; the basis of which is unclear and survival very patchy. The replanning became increasingly a technical exercise, driven by the emerging requirements of the Ministry and less clearly communicating radical and large-scale proposals to a public readership. The bombing and clearance was, very evidently, a technical opportunity to replan and redesign areas not meeting a modern agenda of high speed and high efficiency: old frameworks of streets, plots and buildings were swept away even if they survived bombing. There was some conservation sensitivity in some plans, especially for 'honeypot' sites such as Bath and York which escaped serious bomb damage - but even they were tightly hemmed-in by new development and, as in Worcester, a 50-year timeframe might yet result in redeveloped historic cores.

This was a short period of unparalleled activity in planning and development, during which the catastrophe of bombing was seized by professionals as an opportunity, radical new ideas were promulgated though often poorly communicated to the public, and, as our oral history work suggests, public expectations were raised then dashed, and the experience of living through the bombing, replanning and rebuilding was problematic and often frustrating for many.

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[i] Noemi Quagliati, "Aerial reconnaisance photographs of bombed cities in German and Polish visual cultures: tracing the history of two photos of Frampol"; Anna Siedel, "How to document urban destruction? Literary and cartographic topographies of Warsaw after WW11"; Gruia Bădescu, *Cartographies of frontier urbanism: Documenting destruction and planning reconstruction after border change in Yugoslav Rijeka",* Barbara Szczepańska, "*Maps, projects and designs as a link between pre- and post-war history of the city: a case study of Opole".*