

## Cedric Price:

1934–2003

He left few buildings, three books and a great army of admirers. Cedric Price was, in the very best and most creative sense of the word, a researcher and a visionary well ahead of his time. His London Zoo aviary, Fun Palace and Potteries Thinkbelt projects were hugely influential. Here, STEPHEN MULLIN, his chief assistant from 1964 to 1969, remembers both their gestation and (in his extensive notes on p. 118) their extraordinary and greatly loved progenitor.

One summer's day in 1964, I found myself kneeling beside Lord Snowdon on the banks of the Regent's Canal painting grey stones black. It was a bizarre but appropriate introduction to working with Cedric Price, who often turned to Lewis Carroll to make a point. Snowdon had sourced black slate from a Welsh quarry on a Crown estate to line the ground inside the new Aviary<sup>1</sup> at the London Zoo, but there was a shortfall in coverage, and the Aviary was about to open. Hence the paint.

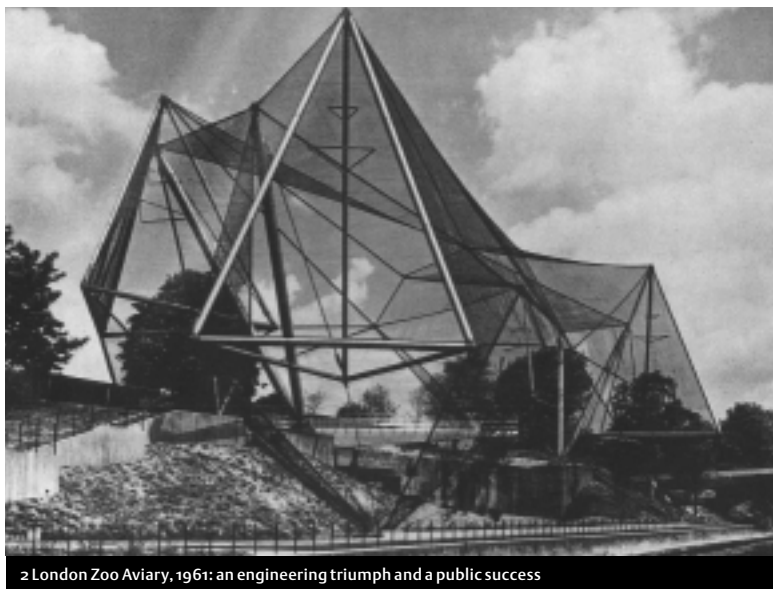
The Aviary [2] was a major hinge point in Cedric's career, and in his development as an architect. Before its completion, his projects and completed work had been relatively minor in scale, though always beautifully detailed, and highly imaginative in their development of flexible, interlinked spaces. There was work for a London hotel, the Robert Fraser Gallery in Mayfair, and a clutch of houses, only one of which, the gamekeeper's cottage at High Leigh, got off the ground. These were all of conventional masonry or concrete construction, though scarcely conventional for the time in their built form.



Cedric Price: ever exchanging ideas, jokes and information – in a word, learning

There were two notable exceptions. The timber-framed children's pavilion in a garden at Worthing was the first example of what Cedric would later describe as 'additive detailing', where planted components were used rather than conventional joints, much in the manner of Walter Segal, whom

Cedric greatly admired. The other (unbuilt) project was the auditorium at Claverton, where Cedric collaborated with Buckminster Fuller to develop his geodesic radome system as a shelter for concerts. Cedric solved the old riddle of how you get into a dome without compromising its



2 London Zoo Aviary, 1961: an engineering triumph and a public success

structural and visual integrity with a single sweep of Occam's Razor: he jacked it up for the audience to get in, then dropped it for the performance.<sup>2</sup>

All this work flowed from the foundation of Cedric Price Architects in 1960. Prior to that he had worked for Fry Drew and Partners, and collaborated with Erno Goldfinger on exhibition design, while also working as a part-time tutor at the Architectural Association school, a post he held until 1964. Cedric had completed his last two years' training at the AA, after reading architecture at Cambridge from 1952 to 1955. One year into the course there, his father died, leaving Cedric, the elder son, as the effective head of the family.

His father, the architect A.J. Price, was a major influence on Cedric's interests. He had worked with Harry Weedon pre-war on the Odeon cinema chain, and after the war on housing, two areas of preoccupation to which Cedric was to return again and again throughout his life. Equally important, Cedric grew up surrounded by technical manuals, for which he had an abiding fascination.<sup>3</sup> And his father's tragic early death undoubtedly helped shape the resilience and survival instinct which was to support him throughout his career.

#### An instant public success

The fledgling practice that he had established was stabilized and supported by the Aviary commission. This had come his way by a process that was to become an established feature of his career: a fruitful combination of networking and

talent. Anthony Armstrong-Jones had been a friend and contemporary at Cambridge. When, as Lord Snowdon, he was approached by the Zoo to build a 'birdcage',<sup>4</sup> he came to Cedric for help, in a classic demonstration of one of Cedric's many famous aphorisms: 'A client is somebody who comes to you in state of distress'.

Bringing in the equally young engineer Frank Newby of Samuel's, Cedric then proceeded to make life as difficult as possible for the design team, persuading the Zoo to swap a flat site for the steeply sloping canal bank, so as to allow view of the birds from above, below and from the side. There were other problems to be overcome: the spacing of the aluminium mesh had to be small enough to keep food-hungry birds out, yet large enough to prevent icing up and a subsequent increase in wind load.<sup>5</sup> And the corrosive qualities of bird excrement caused considerable pain when it came to specifying the materials used in the interior.<sup>6</sup>

But the result was an engineering triumph and an instant success with the public. With its four floating aluminium tetrahedra, cable-supported from V-shaped compression members at each end, it was the first major tensegrity structure in the UK. In its visual permeability it echoed the comment about glass by Cedric's old mentor at the AA, Arthur Korn: '*es ist da, und es ist nicht da*'.

With the Aviary under its belt the office was heavily engaged on two very different yet interlinked projects. Cedric had been brewing up the Fun Palace since 1961 with Joan Littlewood,<sup>7</sup> and by 1964 it was just about to go public, with an article

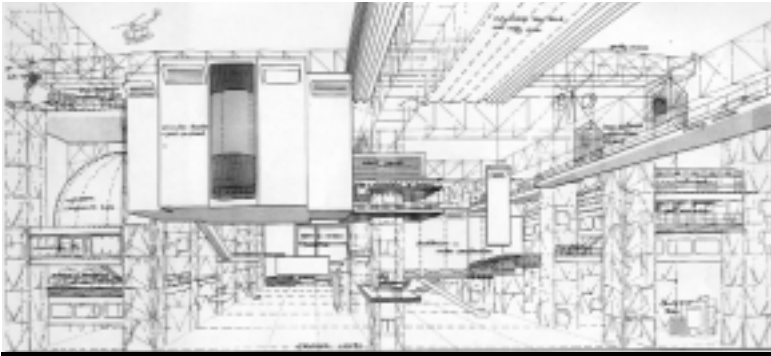
by Joan in (characteristically) *New Scientist* and major splash coverage in (uncharacteristically) the January preview issue of *The Architectural Review*. A formidable fund-raising committee, including Buckminster Fuller, Yehudi Menuhin, Ritchie Calder and Lord Harewood was in place, and a vacant site had been found at Mill Meads, at the bottom end of the new Lea Valley Park in East London. The roll call of the Fun Palace Trust was a typical cross-section through Cedric's increasingly heterogeneous network of friends, acquaintances, information sources and specialist advisers, ranging from movers and shakers through the knowledgeable and the raffish to, occasionally, the downright sinister.<sup>8</sup> And then there was Joan Littlewood, who could effortlessly combine all such roles at once, if need be.

#### Learning and other delights

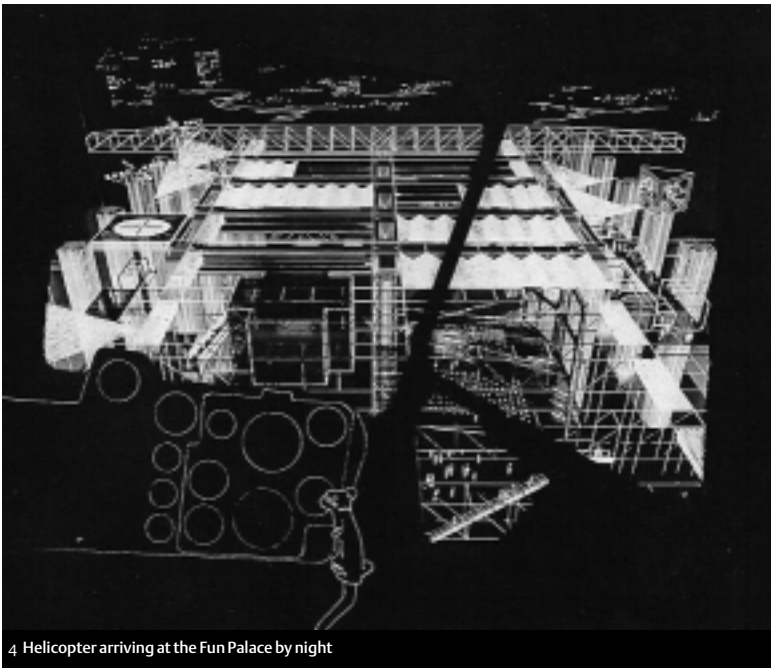
Up to the White Room<sup>9</sup> on the top floor of the new offices in Alfred Place trooped, over the next 30-odd years, cyberneticians like Gordon Pask and Stafford Beer; a constant stream of students; politicians from every political persuasion, from Ian Mikardo, Tom Driberg and Ellis Hillman<sup>10</sup> to Alastair McAlpine; experts in perception like Richard Gregory; fellow practitioners like Ron Herron, Per Kardtvet and David Allford; writers and critics like Peter Banham, Studs Terkel, Paul Barker, and Paul Finch; academics like Peter Cowan and Peter Hall; and TUC heavyweights like Clive Jenkins and Norman Willis; all with one aim: to exchange ideas, jokes and information – in a word, learning.

Learning – not 'education' – was what the Fun Palace [3 and 4] was all about. A huge, enormously flexible 'university of the streets' (Joan's words), its basilica plan form mirrored that of those other great centres of information exchange, the cathedrals of the Middle Ages. Only here there was no vault, but a series of folding rainscreens; no aisle chapels, but a range of moveable floors; no echoing void to the nave, but a myriad secondary enclosures slung from the trussed 'roof' structure, moved around by a travelling gantry, and serviced by mobile escalators, and lifts and air-handling equipment in the skeletal 'columns'.

The Fun Palace pushed 1960s technology to its very limit, egged on by its client. 'What time is it?' she wrote,<sup>11</sup> 'Any time of day or night, winter or summer – it



3 Fun Palace: an enormously flexible 'university of the streets', 1961

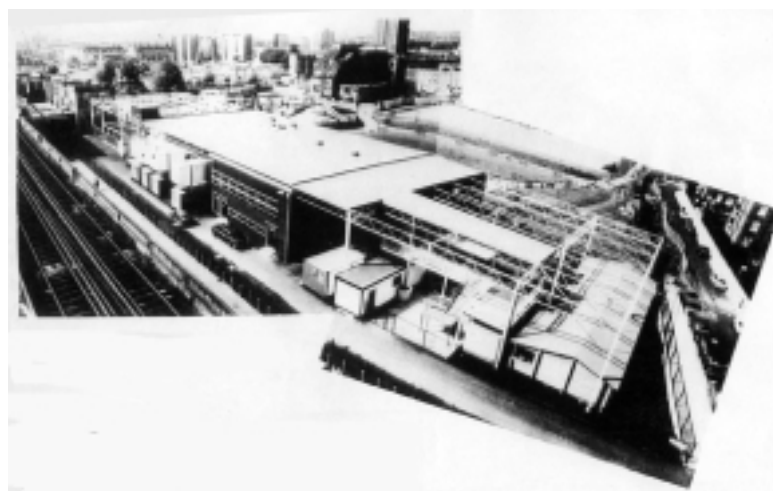


4 Helicopter arriving at the Fun Palace by night

doesn't really matter. If it's too wet that roof will stop the rain but not the light. The artificial cloud will keep you cool or make rainbows for you. Your feet will be warm as you watch the stars – the atmosphere clear as you join in the chorus.'

But it was technically feasible – just. After all, Concorde is still flying – just. And the Americans made it to the moon on the equivalent of a first generation Playstation. The obstacles to its realization were not really financial: in the headily optimistic days of the 1960s those seemed relatively trivial. As so often, the barriers proved to be human, with a GLC jobsworth maintaining his grip on the unused patch of wasteland 'for operational purposes' (it is still vacant). As an interim solution, a site for a 'pilot project'<sup>12</sup> was identified in Kentish Town, North London.

This was to take a radically different form. Whereas the main Fun Palace was to be a magnet for the whole of London, the Pilot Project was to serve the immediate



5 Inter-Action Centre, London, 1971: a casual, accretive and functionally descriptive aesthetic

local area. And instead of the massive static support structure planned for Mill Meads, the Pilot Project was designed as a wholly demountable kit of parts that could change from day to day, and move to another site when necessary. In this, it looked forward to a whole series of urban

interventions, like Thinkgrid, Magnet, Generator and the South Bank study, which Cedric was to propose over the next 30 odd years to 'tune' cities so that they could respond immediately to the requirements of their inhabitants.

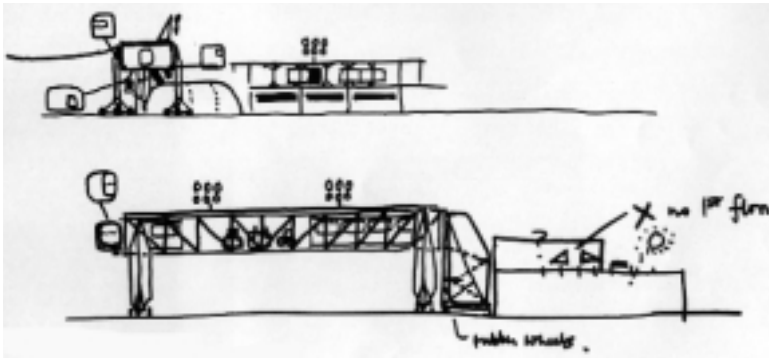
Perhaps inevitably, the Pilot Project was scuppered by a small but determined band of protesters, led by the local Vicar who claimed, among other things, that it would 'take people away from the Church'. Ironically, the nearest equivalent to the Project to be built, the Inter-Action Centre of 1971 [5], was to rise on a site very nearby. Midway in scale between the Main and Pilot Projects, its lattice steel structure formed the frame for a variety of enclosures, ranging from Portakabins and log cabins to purpose-built rehearsal rooms.

Its aesthetic – and, make no mistake, it did have a very strong aesthetic, as did all Cedric's built and unbuilt projects – was at once casual, accretive and highly descriptive of the functional organization which underlay its form. There are direct parallels here with the disposition of components of the Potteries Thinkbelt, which the office was developing in parallel with the Fun Palace, though the scale of the Thinkbelt – a triangle 4½ miles by 7 miles by 8 miles – was vast by comparison.

#### Forty years early

The Thinkbelt [6 and 7] was very much a personal project for Cedric. He had been born at Stone nearby, and knew the history of the Potteries intimately. In 1965, when the office started work on the project, it presented a foretaste of what was to happen to large areas





6 Study for the Meir transfer area, Potteries Thinkbelt, 1964; standard form of information transfer between principal and assistant. Cedric scarcely touched a T-square after he had set up his office: why keep a dog and bark yourself?



7 Thinkbelt cover for AD, showing faculty sidings

of heavy industry elsewhere during the 1980s: a landscape blighted by spoil heaps, marl pits and mining subsidence, littered with obsolete industrial buildings, but still retaining a complex nineteenth-century rail infrastructure. Cedric saw this as practically the one bit of surviving plant which could be turned to good use. It provided the means for moving large numbers of people throughout the entire area without the need for further major investment on transport. A university of 20 000 students based on this infrastructure could provide new forms of employment and access to badly needed housing to modern standards.

Nowadays, it is a commonplace that the most potent acquisition a run-down area can make is a university, and that access to higher education is vital to develop the skills and potential of the population. But in the 1960s things were different. As Cedric pointed out then, 'Institutions today are too small and too exclusive. Because advanced education is not regarded as a major national industry, it is in danger of failing to achieve both a recognized social relevance and a capacity to initiate progress, rather than catch up with it'.<sup>13</sup>

The rail network also offered the opportunity to avoid the rapid and inevitable obsolescence of fixed structures as they fail to respond to educational demands (schools are always either too big or too small). Instead 'faculty sidings' would allow educational plant to be moved around and regrouped in response to current requirements.<sup>14</sup> Heavy plant was sited in the 'transfer areas' at the three nodes of the triangle, providing national rail, road and air links to the Thinkbelt.

Each of the transfer areas, faculty zones and housing areas was site surveyed, and designed in detail. Every bit of fixed or mobile plant was then drawn on to a large aerial survey photographic mosaic (complete with cast shadows) and then the whole thing was re-photographed. The drawings, photograph and accompanying report went on sale as a boxed set at £100 a throw. A complimentary set was sent to the Ministry of Education, who had sparked the whole thing off in an altercation between Cedric and Lord Kennet.<sup>15</sup> They never acknowledged receipt.

The housing areas were all vacant sites, and vacant for good reason. They were either steeply sloping, consisting of unconsolidated spoil, subject to severe mining settlement,<sup>16</sup> or had a particularly unpleasant outlook. To cope with these particular conditions, or any combination of them, four different housing types were proposed: battery, capsule, crate and sprawl.<sup>17</sup> It was sprawl housing – lightweight additive timber construction on tridetic space frames supported by jacks – which was to see further development in a series of housing studies running through to the early 1970s.

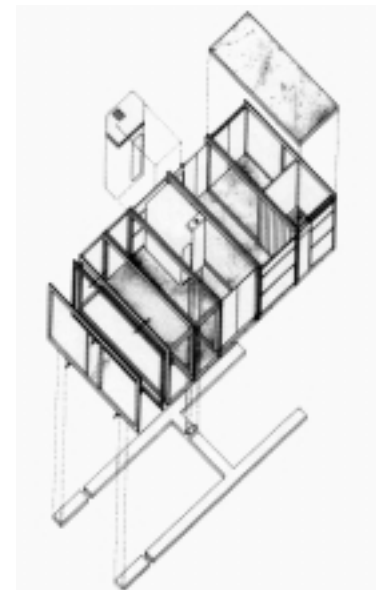
#### Decoupling the drains

The international Steel Housing Competition of 1966, for which the

office submitted an entry,<sup>18</sup> was one spur. Another was the publication of the Deeplish Study in the same year by the Ministry of Housing and Local Government: the first to press the case of rehabilitation as an alternative to wholesale demolition of substandard housing. Cedric was concerned about the ossifying effect of such an approach on obsolete settlement patterns, tied to nineteenth-century sewer lines.<sup>19</sup>

He took the same area of Rochdale, and developed the sprawl housing concept to beef up services to existing stock, decoupling it from existing underground services with self-contained Eimco sewage digesters, thus allowing for future change. For comparison, he chose a greenfield site in East Tilbury. The final product – the '24 hour living toy' [8] – was steel framed, totally glazed and air conditioned, with services running above ground below a raised 'boardwalk' access, served by roads formed from the perforated metal strips used to provide emergency runways, and lit at night by an inflatable artificial moon.<sup>20</sup>

The housing was designed for a 25 year life (the economic optimum) without the need for any maintenance, after which the whole site could be cleared, if desired. As always, there were major resonances between this theoretical study and the other built work of the period, the BTDB Computer Centre. This opportunity arrived as a spin-off from the collapse of a much larger commission, caused, as happened so often with Cedric, by the career move of the powerful head of a large organization.



8 Housing studies: axonometric showing additive construction

### Fast-track with flower meadows

The BAA Northside project involved a masterplan for the narrow strip of land between the north runway at Heathrow Airport and the Great West Road. Acoustically, it was immensely challenging, and the plan proposed a range of deep single-storey steel framed *Bürolandschaft* office blocks, triple glazed on the road side, buffered by air-conditioning plant facing the runway, and shielded by heavy concrete cladding on the flanks, precast on site in stainless steel permanent shuttering. The massive concrete roof allowed on-building car parking.

The BTDB site was only a couple of miles away, at Hayes, with similar acoustic problems, and a few of its own. The site was, literally, a tip, made up of squashed toothpaste tubes. Frank Newby calculated that an inverted concrete raft, cast directly on the surface<sup>21</sup> after removing the top two inches, would tilt a maximum of half an inch over 15 years; which could be accommodated by levelling screws in the computer floor, and which Cedric foresaw (pessimistically, for once) would be the time it would take for the ICL dinosaurs in the computer room to become completely redundant.

Siting the systems analysts and programmers around the central computer room allowed the staff to enjoy the benefits of air conditioning, and skewing the circulation route off-centre meant that there were no corridors as such, and views out throughout the building [9 and 10]. This was a fast-track all-steel building, designed and built in one year flat,<sup>22</sup> and at the start of contract Cedric put the whole of the future staff on site in customized Portakabins so that

they could start work immediately, and familiarize themselves with the building as it went up.

The centre was designed for nil external maintenance, except for the occasional hosing down (which it never got), and the surrounding landscaping was a very early example of a wildflower meadow planting, ideally suited to the poor soil and requiring only a once a year cut.<sup>23</sup> Of course, once completed, the maintenance instructions were soon completely ignored, and orthodox (and expensive) grass-cutting knocked out the flowers. Nor was the building recycled after 15 years as planned: years after its sell-by date it was still there,<sup>24</sup> neoprene gaskets flapping in the breeze.<sup>25</sup>

Cedric's remaining major building of the 1970s, the Blackpool Zoo restaurant, makes an interesting comparison to BTDB, in terms of his interpretation of impermanence and change. Both are all-steel. Both are square. But whereas the finite usage span determined the economic life of BTDB, the restaurant was seen as part of a wider complex of buildings where the uncertainty of changing requirements shaped the need for flexibility of use of the building itself, so that it was designed for easy conversion to a small mammal house, if need be.

### Human happiness and delight

That was thirty years ago. As Margaret Thatcher swung her handbag through the physical and social fabric of this country, Cedric was forced back on the extensive international network he had already developed for work on a myriad projects, competitions and lecture engagements. His rock-steady nerve, and straight talking with clients,<sup>26</sup> ensured that, somehow, the office kept going, until stabbed in the back in 2002 by its landlord.

The absence of recently built work has provoked such callow comments as 'he didn't really want to build' or 'he didn't really like buildings'. Huh. Cedric loved buildings, and loved making them. Anybody who actually knew him knows how hard he grafted to get them up. It's just that he didn't love them for their own sake, but for the contribution they could make to human happiness and delight. When they ceased to provide that, it was time to move on.<sup>27</sup>

His passion for buildings extended through to the whole



10 BTDB entrance. Designed and built in a year to last 15 years, it lingered on for twice that time

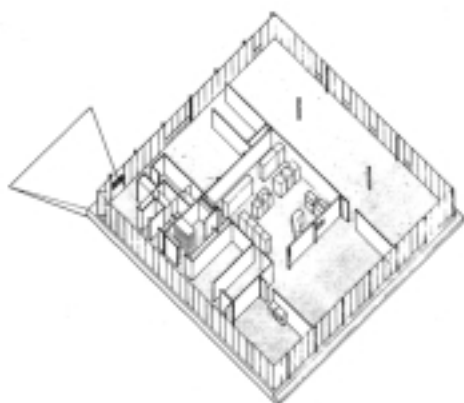
process of construction – and deconstruction. The only architect to be a member of the National Federation of Demolition Contractors, he was as concerned to know what would happen to a building when it exited the scene, as much as how it entered it. In this last respect, he pushed through, in the McAppy project for McAlpines, a comprehensive programme of building site improvement, in employer/union partnership, reflecting both his lifelong socialist commitment, and his respect for genuine entrepreneurial achievement.

His own book, *Re:CP*, published, alas, posthumously, provides a wonderful insight into his encyclopaedic grasp of contacts and information sources,<sup>28</sup> and his wide-ranging and detailed historical understanding,<sup>29</sup> on which so many people relied. For anyone stuck for a particularly abstruse bit of information, there was always a ready answer: 'Cedric will know'. Except that Cedric isn't there any longer, and there's a big gap in a lot of people's lives. Ah well. Goodbye Cedric.



11 'Goodbye Cedric'. Drawn by Adrian George for AD cover, January 1972

*Cedric John Price, architect, cook, polymath, conspirator, raconteur, cricketer, visionary, life-enhancer: born 11 September 1934, died 10 August 2003 aged 68.*



9 BTDB, 1967: air-conditioned staff areas surround the higher pressure computer room

## Notes

1. Comprehensive references to magazine coverage of all Cedric's buildings and projects (with a few minor inaccuracies and omissions) are to be found in *Cedric Price: Works II* (Architectural Association, 1984) republished as *Cedric Price: The Square Book* (Wiley-Academy, 2003), and *Cedric Price Opera* (Wiley-Academy, 2003). Together with Cedric's own book *Re:CP* (Birkhäuser, 2003) they form the best introduction to Cedric's life and work, covering as they do all Cedric's projects in considerable detail.
2. Concrete seats outside were fitted with 'localized' loudspeakers. 'Having been penalized, late arrivals could therefore still enjoy a hearing of the performance'. *Cedric Price: Works II*, p 88.
3. A passing mention of the weird and wonderful Schindler-Gohner housing system elicited a comment from Cedric that he had come across an illustration of the system in his father's copy of *Specification* and immediately set about building a model of the system with his brother David, using plaster of Paris and their Bayko set.
4. Reputedly as the result of a chance remark by the Duke of Edinburgh to Solly Zuckerman: 'Better talk to my brother-in-law – he's just built one'.
5. In the event, a compromise was reached. A 50 per cent reduction in loading would be achieved if sparrows were let in, but starlings kept out. Even so, there were still icing problems during freak weather conditions soon after completion. See *Architectural Design*, September 1965, for a full technical account by Frank Newby.
6. The concrete floor of the enclosure for Goldie the golden eagle, the Zoo's most famous escapist of the 1960s, and worth a thousand PR men in publicity, had to be renewed every year.
7. A comprehensive, often hilarious and occasionally scabrous account of Joan Littlewood's relationship with 'the arch' during the evolution of the Fun Palace Main and Pilot projects can be found in Joan's autobiography *Joan's Book* (Jonathan Cape, 1999).
8. For example, Big Willie, the Krays' minder, or Gustav Metzger, the founder, and, so far as I am aware, the only practitioner, of Auto-Destructive Art.
9. Also known as East Grinstead, as in 'I'm afraid Mr Price is in East Grinstead this afternoon'. Contrary to popular belief, the Alfred Place offices were taken over as an 'as found' readymade with their original black and white décor from Colquhoun and Miller and no changes were ever made other than the suspension of an aluminium faced sheet of plywood over the entrance.
10. GLC Councillor and expert on underground London. Ellis undoubtedly alerted Cedric to the existence of the London Hydraulic Main, which he proposed to power the moving floors in the Oxford Street Corner House Project for Joe Lyons.
11. In the promotional brochure for the Fun Palace, 1965.
12. See *Architectural Design*, November 1967, pp 522–525, unaccountably omitted from magazine references in *Cedric Price: Works II*. The chronological references to the Pilot Project should also read 1966, not 1960. That is the date of a much earlier 'pilot' scheme, before the main Fun Palace project was designed.
13. From 'PTb' in *Architectural Design*, October 1966.
14. These included fold-out inflatable lecture and demonstration rooms: a spin-off from the work that Cedric and Frank were conducting through the Lightweight Enclosures Unit on air-supported structures which was to lead to a government financed report on new codes of practice.
15. Then a Minister for Education. The conversation ran something along the lines of, 'You're so clever, why don't you tell me how to do it'. 'OK then, so I will'. The Ministry of Housing and Local Government, bless 'em, bought a set, presumably now languishing in the reserve collection. Somebody ought to retrieve it.
16. The Planning Department at Stoke-on-Trent in those days was called the Department of Reconstruction. The first thing that hit you on going through the door was a series of multi-coloured sections through the geological substrate showing the number of feet your house was going to sink over the next few years.
17. I have to confess that we had a lot of quiet fun devising names that would particularly get up the noses of the RIBA and RTPI.
18. Only just. As with all competitions, we were running late. In order to make the last permissible post, Frank Newby had lent Cedric the keys to the Samuely office, where there was a dyeline machine from which we could make prints. Unfortunately neither of us knew how to work it properly. The result was a pleasing pink background to the prints, which may or may not have influenced the assessors against us.
19. An analysis of the supposedly relocatable ex-LCC mobile homes had shown that relocation was actually uneconomic, due to the cost of provision of underground services.
20. Not a flight of fancy, just prescience. I was delighted to be able to send Cedric a photograph of just such a moon, used for night filming round the back of our house last year.
21. The Building Inspector asked for drawings of the foundations. Cedric replied, truthfully, if a tad provocatively, that there weren't any.
22. The contract was tendered on the basis of a single 1/8" scale plan and a brilliant specification by Q/S Douglas Smith, working closely with Frank Newby.
23. The seed had to be specially made up, and when the landscape contractor received it he rang the office in consternation: 'It's all weeds!'. The wildlife, however, loved it. The first winter after completion, every rabbit in West London homed in on the site, and cropped it down to a smooth turf.
24. A recent visit confirmed that the thing was down at last, replaced by TOYS'R'US, a fact which Cedric would undoubtedly have enjoyed.
25. Illustrating three of the many facets of Cedric's character: his often misplaced faith in the ability of British technology to deliver the goods, his hatred of wet construction (Frank Newby had wanted the external face of the air-conditioning plenum to be sealed with blockwork), and his equally optimistic faith in the ability of the young assistants he always employed to master the art of building from a standing start (I should have dug my heels in, supported Frank, and said no to a patently dodgy bit of detailing by the subcontractor).
26. A commission for the Parc de La Villette in Paris foundered due to French stinginess over fees. Cedric always drew a hard and well-considered bargain with potential clients, and always delivered his side of the bargain on the button.
27. As with the Pop-Up Parliament project, executed at the instigation of Tam Dalyell MP, where he saw the Barry/Pugin pile as a malign block on the workings of democracy.
28. As in the *Hair* production, Rotterdam, where he managed to bring together a disused circus tent, redundant cinema seats, and two Dutch Army space heaters in double quick time.
29. See, in particular, Patrick Keiller's 'London-Rochester-London' in *Re:CP* for a real plum pudding of Cedric's musings on the landscape through which he passes.