"Urban Nerve Centre" and Information as Activity: Cedric Price's Oxford Corner House Feasibility Study (1966)

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In an age of ubiquitous screens, every space is an information space. But decades before the contemporary notion, Cedric Price (1934–2003) proposed turning a massive but failing restaurant into an urban information hub in his 1965-66 Oxford Corner House Feasibility Study project. More than merely housing a computer, OCH itself would become a building-sized computer, an urban interface for interaction and engagement of the public in central London. It would serve up leisure activities and information, guided or not, for groups or individuals, whoever they were.

"The equipment which we have centralized has no boundaries," Price wrote in the report for the study. "It can penetrate through walls, buildings, towns and countries provided the transmission paths are available."[1] Price proposed a four-floor building that extended into the city and the world through networked information. An IBM computer would fuel the information delivery, as dozens of screens would display graphical and word-based content. The interior of the building itself would be dynamic, with hydraulic, movable floors, screens of information, 400 carrels where a user could dial up lessons, and thousands of images stored on individual video frames. In the body of Price's work, the OCH presents a vital aspect of his interest in responsive architecture, providing modes for personal transformation through engagement with informational interfaces. It demonstrated an architecture of information in the truest sense of the term.

When the Oxford Corner House originally opened on Tottenham Court Road in 1928, it was part of a chain of ventures by J. Lyons Ltd., a family-run conglomerate that manufactured tea and food products and managed restaurants and hotels. In 1909, J. Lyons opened its chain of five Corner House restaurants at busy London intersections. The Oxford Corner House could seat up to 2200 customers at a time, served by the iconic, speedy tearoom waitresses known as "Nippies."[2] Each of the four floors offered a different restaurant with a live orchestra, for longer meals, and a cafeteria that served quick bites. For several years in the 1960s, the Corner House was open 24 hours a day.[3] So large was J. Lyons' enterprise that the company developed the first business computer in Great Britain, LEO (Lyons Electronic Office), in 1953 to manage the company's stock, inventory and payroll.[4] However, by the early 1960s, the Corner Houses fell out of favor, despite the central location of the restaurants: the British palate had changed, as had its tastes for leisure.

It was Price's Fun Palace project, a cybernetic platform for learning and leisure, that attracted the attention of director Patrick Salmon at J. Lyons Ltd. In an internal memo to Geoffrey Salmon, he wrote, "I think that there is an enormous potential in catering for the leisure activities of the populace and that we could well be letting a new social pattern if we went ahead with this scheme, as original as the Teashops were at the turn of the century."[5] The £20,000, 10-month feasibility study starting October 1965 would secure planning permission and eventual design guidelines for the redevelopment of the Oxford Corner House to fit the changing nature of leisure in British society—something that occupied every sphere of discourse in the 1950s and 60s—and possibly save J. Lyons' restaurant venture.[6]

Rather than submitting plans for an ordinary restaurant renovation, Price designed an interactive information hub and mobile restaurant that would educate as well as entertain—a "people's nerve centre." While it would serve as a platform for leisure, with "activities ranging from eating and drinking to self-pace learning and involvement with world news,"[7] it would serve as a cerebral locus befitting a metropolis. "The people's nerve centre or City Brain must, through its design, provide the excitement, delight and satisfaction that a 20th century metropolis should offer - Piccadilly Circus and Hampstead Heath are not enough," stated Price's proposal to J. Lyons.[8] "The whole building is a vast teaching machine."[9] It would transmit live information in text and image; its information sources included news, police activities, local government information, transportation, educational activities, conferences, and exhibitions—even a planetarium and a driving simulator: quite a different take on the initial brainstorming by J. Lyons' directors, who envisioned a showcase for American trends and a Playboy club.[10]

The notion of a city as a nerve center originated as early as 1950, although Price may not have been aware of this early reference. "A city is primarily a communications center, serving the same purpose as a nerve center in the body," wrote Norbert Wiener, Karl Deutsch and Giorgio de Santillana in a *Life* magazine section titled "How U.S. Cities Can Prepare for Atomic War."[11] Where the authors advocated for the decentralization of American cities, Price's notion of a nerve center took advantage of just the opposite: high density of one of central London's busiest corners in order to maximize civic connection and transformation through information.

From the beginning, the OCH Feasibility Study was to be a futuristic undertaking. "Dealing with the knowns and predictables should be done thoroughly and imaginatively," wrote collaborator Sol Cornberg to Price in a memo. "The unknowns and unpredictables should be privileged an amount of freedom and blue-sky which may well raise the project above the routine. Not to be limited by known means of communications transmission or display. To embody the future is to be capable of accepting futures' technology."[12] As such, the most striking elements of the proposed design for the OCH were the internal screens and informational interfaces. The crux of the project revolved around the communication mechanisms of OCH, a combination of program, informa-

tional interfaces and circulation. Price kept the physical structure of the original building and determined the building's framework (interior volumes, movable hydraulic floors, escalators) for OCH in the earliest part of the study, reserving much of the 10-month project for designing the communication infrastructure. Price collaborated with several other architects and experts. Keith Harrison represented the office and drew the intensive network diagrams that outlined the structure of information to its served interfaces. Raymond Spottiswoode, a British producer and director who invented and patented 3D movie technology in Great Britain, developed the screens and image serving technologies. Cornberg, a communication designer, designed a study carrel system in 1963 with headphones, microphones and a television screen where students could dial up lectures or practice languages; Price would include his carrels in the design for OCH.[13] OCH's diagrams and information displays look like literal translations of computer networks and virtual libraries—the project would seem to be directly inspired by two articles on computer networks that Price included in the material. First, an article by *New Statesman* editor Nigel Calder inferred the work of American computer scientists in an article titled "Computer Libraries." "If men and computers are to achieve a satisfactory symbiosis, and if the machine is to be an aid to creative thought rather than a mere clerk, we have to give a lot of attention to the way we ourselves think. The problems become as much a matter of philosophy as of electronics," wrote Calder. "Nowhere is this more true than in the proposition that a computer system can act as a library, to throw up from a vast store precisely the information that we require for a given purpose."[14] Second, "Towards an Information Utility" by John Laski in *New Scientist,* presents network model that Price and his collaborators would design. "The creation of a network or 'national grid' of computers, with outlets to typewriters or other devices in any office or home, is only a matter of time, money and resolution," stated the article's tagline. Laski predicted:

> By 1996 computing power should be used by everyone as casually as energy is today. Access to computing power will be as widely distributed as electricity, and the wealth and well-being of the country will be dependent on the availability of adequate supplies. On the monopoly that will supply computing power for bulk transformation, storage and retrieval of information and for diffusion of information, will depend the quality of life for every member of the community. And the nation that first makes available computing power to its citizens as a public in-

formation Utility in this way will dominate the world economy just as the steam engine allowed Britain to dominate the world throughout Victoria's reign.[15]

Laski envisioned what he called a "conversational machine" positioned between a user at a keyboard and an "immense national batch processor serving all regions."[16] From his perspective in 1966, the concept did not seem that far off—as early as the 1970s, if planning began soon. "For general purposes the signs are that the technology for setting up very big electronic stores of information, in principle accessible to anyone on the end of a telephone wire, may be perfected before we are clear in our minds about how best to use it,"[17] Laski wrote— and Price would seem to attempt an answer to how such information could be used and made accessible to the British public.

Price's office researched, organized and categorized a wide variety of information stores and determined how best to store and retrieve them over the network before formalizing the building's design. In a letter to IBM about engaging their services in the OCH Feasibility Study, Harrison wrote:
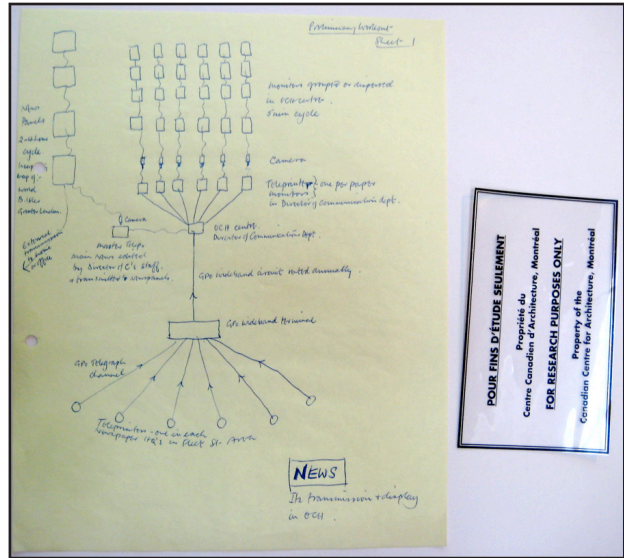

Figure 1. News delivery network for OCH. Source: OCH Feasibility Study Folio, DR1995:0224:324:001. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

Broadly speaking the range of activities we anticipate will consist of transmitting information from outside bodies to our Client's building, and
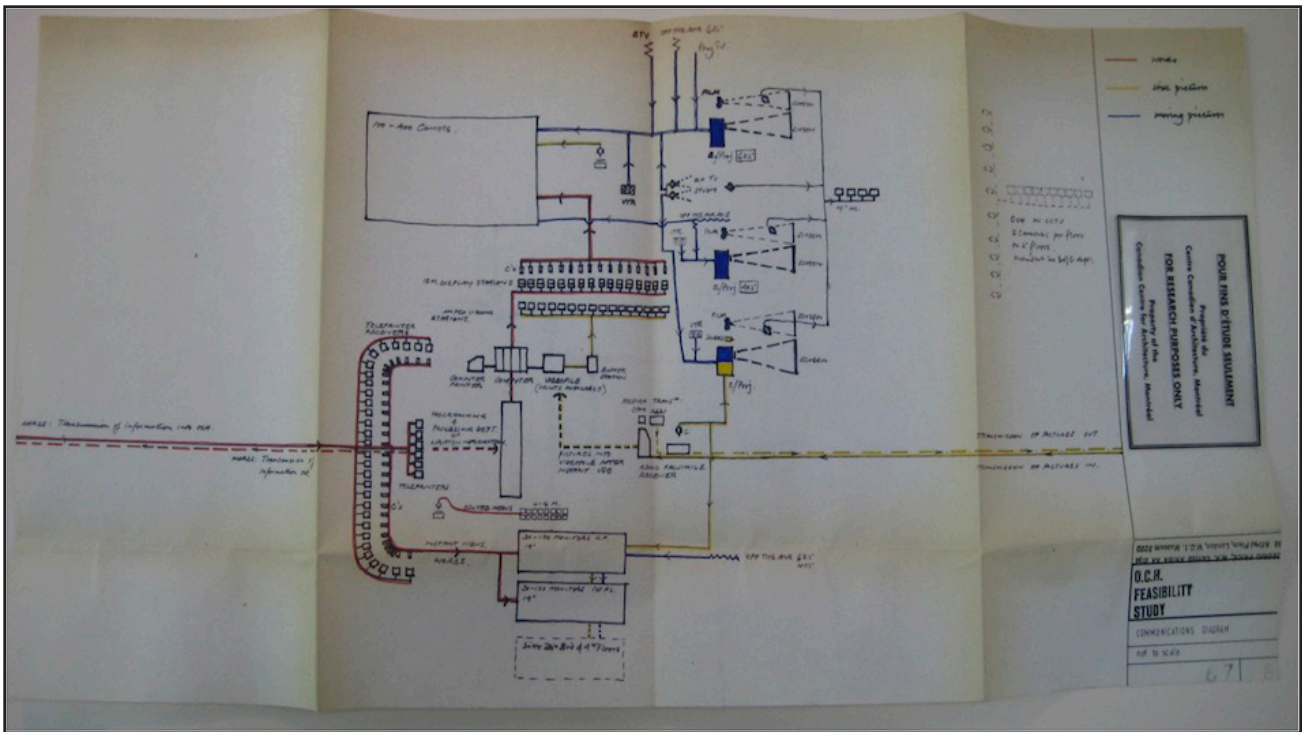

Figure 2. The overall network diagram for OCH's 400 carrels, informational interfaces and screens. Source: OCH Feasibility Study Folio, DR1995:0224:324:002. Cedric Price Archive, Canadian Centre for Architecture, Montreal.
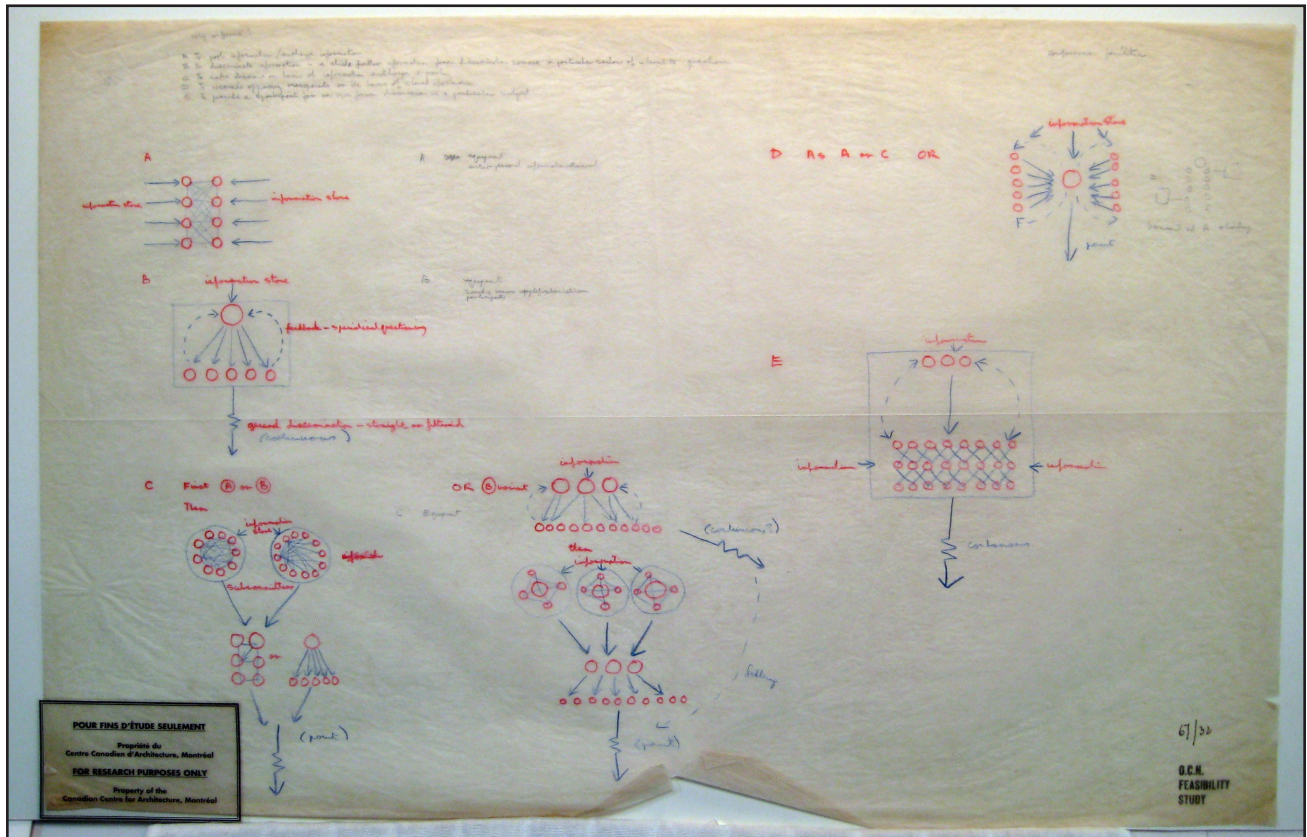
Figure 3. Mapping the relationship of people to stores of information. Source: OCH Feasibility Study Folio, DR1995:0224:324:041-056. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

displaying it, in various ways, to the general public inside the building. Some of this information (and in time perhaps a very large amount of it) will have to be stored for future retrieval and display, and this, along with the question of how to control, code, and store a lot of incoming information, will form an important part of the feasibility study.[18]

Working from the bottom of the diagram upward in Figure 1, we see telegraph channels that deliver news information into an inbound terminal. At the center of the diagram, the OCH Director of Communication Department would funnel the information before sieving and editing, shunting information toward teleprinters. Cameras would record the feeds, transmitting to closed circuit television monitors around the building. Within the Director of Communications office, staff would decide which content to store for longer periods, rotating other news content on a two to four hour cycle. This information would also filter outward to Cadby Hall, the headquarters of J. Lyons.

The gigantic scale of the operation becomes apparent in Figure 2, where all of the stores of information combined into one large network diagram. Sixteen IBM display stations with cameras would provide computer information to people sitting at up to 400 study carrels (computer technology at the time did not allow for monitors at individual desks, so CCTV would be employed instead). Images would be delivered from videotape, stored in individual tape frames and accessed by dialing in a code, then displayed on one of the screens in the upper right area of the diagrams—a new technology proposed by Spottiswoode for the purposes of OCH.

Only once he had defined the network did Price determine circulation and movement of the hydraulic floors. He started with a theoretical exercise that looked at how individuals would access and view information—not unlike a translation of set theory applied to physical space and information (Figure 3). The mapping of individuals to information fed into a series of drawings that mapped OCH capac-

ity and circulation among the information screens (Figure 4), each looking at how many people could viable move around and view content. Other diagrams mapped the movement of the hydraulic floors, showing how they could be recombined in order to provide optimal information access.
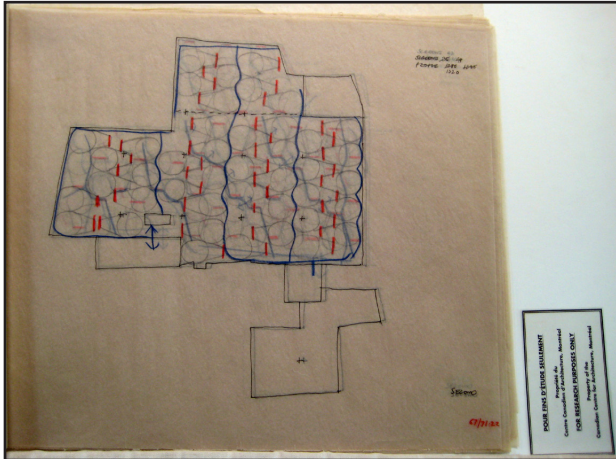

Figure 4. One of several circulation studies that mapped capacity and movement against the viewing possibilities of information screens. Source: OCH Feasibility Study Folio, DR1995:0224:324:041-056. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

Price delivered the OCH Feasibility Study report to J. Lyons in October 1966. The project ended there, at least as an urban information hub. An article in the *Evening Standard* on January 12, 1967 reported:

> The famous Lyons Corner House at the junction of Oxford Street and Tottenham Court Road is to change hands.
>
> The premises are being taken over from J. Lyons, the £70 million tea shop and catering concern, on a 99-years lease by Mecca.
>
> Mecca, whose main interests are in dance halls, catering and bingo, will move in on June 1. They have applied for planning permission to transform the Corner House into an entertainment and catering centre.[19]

In an ironic twist, the purchase of the site by Mecca speaks in direct contradiction to Price's design brief from the year before: "The necessary balancing of the programmed contents must avoid producing an entertainment 'Mecca' - rather it should create a 'launching pad' for further activities, interests and delight."[20] In the years since, the building has housed a Virgin Megastore and a Carphone Ware-

house. Like many of Price's projects, the prescience becomes apparent decades after the fact. An obituary for J.M.M. Pinkerton, the electrical engineer who built the LEO computer for J.Lyons, noted: "With his unfailing good humour, he would have enjoyed the thought of a LEO computer doing stock-control for a Lyons Corner House as the forerunner of a personal computer in a cybernet cafe."[21] Pinkerton probably did not know just how close he had come.

The use of technology in Price's work, wrote Royston Landau, Price's close compatriot and collaborator, served a critical role. "It will be expected to take part in the architectural debate, perhaps through contribution, disputation or the ability to shock."[22] Certainly the OCH proposal made a contribution toward how information networks would affect the built environment—but it also served as a provocation. OCH demonstrates the measure to which Price was deeply interested in information technology. A wide variety of his projects used architecture as a mechanism for organizing information, including Atom (a charette at Rice University, 1967), the Birmingham and Midland Institute Headquarters (1967-71), McAppy (a construction worksite safety and communication system, 1973), Generator (1976-79), JapNet (1985-87), and Magnet (1995-6).[23] Not long after the OCH project completed, Price even specified an information management system for his own office, researching the possibility of using a computer for the job. He ordered 2000 punch cards for a manual system to categorize his project information and library of books and material on everything from aluminum siding to hovercrafts. Price's information technology projects stand out beyond his documented interest in cybernetics, which was germane to only a few of his projects.[24] His continual focus in information undergirds his approach to responsive architecture.

We find a further key to Price's responsive architectures of information in a project he started a year after he delivered the OCH Feasibility Study to J. Lyons Ltd. Price advanced many of the information delivery concepts of the Oxford Corner House Feasibility Study in the proposed design for the Birmingham and Midland Institute (BMI) Headquarters, a "building [that] can act as the nerve centre, producer and distributor of an enormous range of services to members and the public in the region." [25] In the middle of a network sketch much like those of the OCH, we find the phrase, "Storage

of information becomes activity."[26]   Perhaps this small comment serves as the best description for the networks, the diagrams and the servicing of information to a public as a means of transforming.

Ten years after the completion of the OCH Feasibility Study, Richard Saul Wurman coined the term "information architecture" in his 1976 speech at the AIA Convention; today, thousands of Internet-related design professionals call themselves "information architects." Price's work presaged this very concept. He, like Wurman and contemporary information architects, begin projects (whether a building, a travel guide or a website) by gathering and assessing all of the information that it will need provide to its users, organizing and charting it before the start of the visual, graphic or architectural design. Price ultimately designed interfaces for the display of information, structuring circulation around it as an exercise of self-transformation for users.

From today's perspective, the notion of information as something to design with and for takes tangible shape as sensors and screens become cheap and small. In emergent design disciplines, practitioners grapple with information as a medium in their work, as information itself passes through the boundaries of buildings. Mike Kuniavsky's August 2010 lecture "Information is a Material," provides a set of guidelines for designers on incorporating information processing into their work.[27] It is a veritable application of what Price presaged in 1966: "The equipment which we have centralized has no boundaries. It can penetrate through walls, buildings, towns and countries provided the transmission paths are available."[28] The transmission paths are indeed available. Cedric Price forged them long before we might have imagined, in the design of the Oxford Corner House.

ENDNOTES

1   This paper presents primary research conducted at the Cedric Price Archive, Canadian Centre for Architecture, Montreal in July 2010.
 OCH Final Report, section 5. OCH Feasibility Study Folio, DR1995:0224:324:003. Cedric Price Archive, Canadian Centre for Architecture, Montreal.
2   J. Lyons, the large family-run company that owned the Corner Houses, operated for over a century as one of the biggest food and catering companies in Europe. J. Lyons started operation in 1887 and became a public company in 1894. The family-run company remained in operation in name until its acquisition by Allied Brewery in 1978 (and as part of merged corporations until 1995, when its assets were dispersed).

3   J. Lyons & Company record, London Metropolitan Archive, The National Archive (UK), accessed September 15, 2010, http://www.nationalarchives.gov.uk/a2a/records.aspx?cat=074-acc3527.
4   S. H. Lavington, *Early British Computers : The Story of Vintage Computers and the People Who Built Them* (Bedford, Mass.: Digital Press: Digital Equipment Corp., 1980), 72. The idea came from T. R. Thompson at J. Lyons, after two directors from the company saw the ENIAC computer on a 1947 trip to the United States. It demonstrated its calculations to Princess Elizabeth in 1951 and began to develop LEO II in 1953. In 1954, LEO Computers Limited spun out of J. Lyons and operated as an independent company until it merged with English Electric Ltd. in 1963 – which bought out Lyons, merged with Marconi and eventually joined with International Computers and Tabulators. John M. Pinkerton supervised the development of LEO—and would influence Price's thinking for the Feasibility Study via a newspaper article Price included in the final report of the study. See "Obituary of J.M.M. Pinkerton." *Times* (London), January 22, 1998.
5   "FUN PALACE," memo to Geoffrey Salmon from Patrick Salmon, 20 September 1965. OCH Feasibility Study Folio, Cedric Price Archive, DR1995:0224:324:002. Cedric Price Archive, Canadian Centre for Architecture, Montreal.
6   Stanley Mathews notes that it was a part of the Labour Party platform in 1969. Stanley Mathews, *From Agit-prop to Free Space : the architecture of Cedric Price* (London: Black Dog Pub. Ltd., 2007), 69.
7   "Memo, OCH Feasibility Study," 23 September 1965. OCH Feasibility Study Folio, DR1995:0224:324:001. Cedric Price Archive, Canadian Centre for Architecture, Montreal.
8   Ibid.
9   "Communication Media in Each Carrel," OCH Final Report. OCH Feasibility Study Folio, DR1995:0224:324:003. Cedric Price Archive, Canadian Centre for Architecture, Montreal.
10   The J. Lyons brainstorming included more quotidian activities: gardening, skeet, anything trendy in the USA, cookery advice, a gin palace, a Playboy Club, and the more imaginative computer simulated sport center with simulated glider piloting. "Brainstorming re: OCH" memo from to Patrick Salmon from Mr. Riem, 25 August 1965. DR1995:0224:324:001
11   "The Planners Evaluate Their Plan." *Life* (December 18, 1950), 85.
12   Letter from Sol Cornberg to Cedric Price, included in OCH final report titled "67 O.C.H. FEASIBILITY STUDY, December 28, 1965." OCH Feasibility Study Folio, DR1995:0224:324:003. Cedric Price Archive, Canadian Centre for Architecture, Montreal.
13   Geoffrey Hellman, "Educational Alcove," *The New Yorker* 1963, 29.
14   Nigel Calder, "Computer Libraries," *New Statesman* 72 (1966). "Symbiosis" likely refers to the work of J.C.R. Licklider, author of "Man-Computer Symbiosis" in 1960. New Statesman, "Computer Libraries," Nigel Calder, 7 October 1966.
15   John G. Laski, "Towards an Information Utility," *New Scientist*, September 29, 1966, 726.
16   Ibid., 727.
17   Ibid.

18   Letter from Cedric Price to K. T. Wood-ward, IBM, 6 May 1966. OCH Feasibility Study Folio, DR1995:0224:324:001. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

19   "Mecca Takeover Corner House," *Evening Standard*, 12 January 1967. In OCH Feasibility Study Folio, DR1995:0224:324:001. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

20   From the design brief, letter from Cedric Price to Raymond Spottiswoode, 16 June 1966. OCH Feasibility Study Folio, DR1995:0224:324:001. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

21   "Obituary of J.M.M. Pinkerton." *Times* (London), January 22, 1998.

22   Royston Landau, "A Philosophy of Enabling," in *The Square Book*, ed. Cedric Price (London: Architectural Association, 1984), 11.

23   Only Fun Palace, Generator and JapNet had expressly cybernetic influences. In those three projects, Price collaborated with cybernetician Gordon Pask.

24   For example: Stanley Mathews' dissertation and book, Mary Lou Lobsinger's article on the Fun Palace, Gonçalo Furtado's dissertation and even the master's thesis by this author of this paper. See Stanley Mathews, *From Agit-Prop to Free Space : The Architecture of Cedric Price* (London: Black Dog Pub. Ltd., 2007) , ———, "An Architecture for the New Britain: The Social Vision of Cedric Price's Fun Palace and Potteries Thinkbelt," unpublished dissertation, (Columbia University, 2003), Mary Louise Lobsinger, "Cybernetic Theory and the Architecture of Performance: Cedric Price's Fun Palace," in *Anxious Modernisms: Experimentation in Postwar Architectural Culture*, ed. Sarah William Goldhagen and Rejean Legault (Cambridge, MA: MIT Press, 2000), Gonçalo Furtado, "Envisioning an Evolving Architecture: The Encounters of Gordon Pask, Cedric Price and John Frazer," unpublished dissertation, (University College London, 2008). Molly Wright Steenson, "The Architect, the Sketch and the Response" unpublished master's thesis, (Yale School of Architecture, 2007).

25   "Opportunity for the city: Why a new BMI/HQ?" Panel, undated. BMI/HQ Folio, DR1995:0243:495-497. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

26   Conceptual sketch, undated. BMI/HQ Folio, DR1995:0243:099-116. Cedric Price Archive, Canadian Centre for Architecture, Montreal.

27   Mike Kuniavsky. "Information is a Material (Device Design Day Talk Transcript)," OrangeCone.com, accessed September 15, 2010. http://orangecone.com/archives/2010/08/information_is_.html.

28   OCH Final Report. OCH Feasibility Study Folio, DR1995:0224:324:003. Cedric Price Archive, Canadian Centre for Architecture, Montreal.