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– WHEN WE WERE ALMOST MODERN? Theory, Methods and Politics in *The Centre for Environmental Studies*, 1966–1975

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Abstract

This article re-examines the history of the UK Centre for Environmental Studies (CES) between 1966 and 1975. Using archival materials and interviews, the article details the role of the CES in attempts to 'modernize' urban and regional research and working relationships between the academy and government. The CES is probably best known, by readers of this journal, as the initial editorial base for the International Journal of Urban and Regional Research *(IJURR) and for its role in incubating radical urbanism. However, as we show, these activities sat alongside important early developments in both computational social science and radical experiments in the use of the social sciences in policymaking, in ways that have, hitherto, not been well understood. The article is not intended as an exercise in nostalgia but, rather, one that gestures towards what Mark Fisher termed a 'hauntological' form of analysis; to quote Fisher, '[w]hen the present has given up on the future' there is value in listening 'for the relics of the future in the unactivated potentials of the past'.*

Introduction: back to the future?

The parlous state of British policymaking is perhaps nowhere better exemplified than in the voluminous outpourings of the director of the Vote Leave (Brexit) campaign and, subsequently, special advisor to (ex-)Prime Minister Boris Johnson, Dominic Cummings. Cummings is critical of much of what today passes for statecraft, arguing for a radical reappraisal of the evidence base and the methodological tools used to interrogate it. For Cummings, the modern state urgently needs to emulate the supposed 'best practices' of new technology start-up firms—Peter Theil's Palantir often being viewed as paradigmatic in this regard—and turn to 'big data', 'predictive analytics', 'deep neural network algorithms', 'artificial intelligence', 'machine learning' and a plethora of other computational innovations to better navigate complex contemporary political realities (Amoore, 2023). We have little sympathy for the substance of what he proposes, largely concurring with the conclusions of Amoore (2023: 20) that any attempts, at scale, to reconfigure 'political problems' as 'machine learning problems', will probably lead to a further diminution of anything recognisable as 'good governance'. Our interests in his pronouncements here are more parochial, in that they represent—albeit *in extremis*—just the latest attempt to reengineer the relationship between data, methods and the policy process across government, the academy and commerce. Perhaps the last time anything similar occurred in the UK (although with far less vitriol) was during the years of the so-called 'evidence-based turn'—an inherent feature of the *normative* neoliberalism of the Blair and Brown years (Davies, 2016: 127–9)—when a whole series of investments were made to form networks, hubs and centres across government and

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the academy which, essentially, attempted to apply systematic review methodologies (and variations thereof) to social and public policy issues (Wallace *et al*., 2004). The results were 'mixed' at best (Stevens, 2011), and post the 2008 financial crash and the establishment of a more *punitive* neoliberal regime (Davies, 2016: 129–132), simplistic ideological drivers of policy formation generally won out over more the 'nuanced'—often perceived as amorphous—findings of the social sciences.

In this article, we want to return to a far earlier and more hopeful period, at the apogee of Fordism in the UK, when the social sciences were expanding apace and were seen as underpinning all manner of modernization[1] projects (Savage, 2010), and when broadly Fabian sensibilities were dominant within the policymaking classes. We want to describe an experiment in the formation of an institutional structure—with a remit for both research and policy formulation—sitting between the state and the academy, and with an active interest in what could be learnt from other countries, which, had it succeeded and been sustained, might have been generative of a very different social science research and policy ecology than the one we experience today. This is the story of the now little-known Centre for Environmental Studies (CES).

We do not intend this to be an exercise in nostalgia—we are fully aware of the extensive critiques of Fabianism and discourses of modernization—but, rather, one that nods towards a 'hauntological' form of analysis. This is the idea that we now live in a culture haunted by 'lost futures'—the promises of a popular modernist culture that never arrived (Fisher, 2014). In the present conjuncture, when everything feels 'stalled … [we must] … keep insisting that there are futures beyond postmodernity's terminal time. When the present has given up on the future, we must listen for the relics of the future in the unactivated potentials of the past' (Fisher, 2013: 53).[2]

As we hope to show, a contemporary resurfacing of the work of the CES allows us to better understand the antecedents of a wide range of ongoing (methodological, theoretical and political) debates in urban and regional studies, not least in the pages of this journal, where its founding editor was initially based.

It also allows us to make a contribution to the burgeoning literature on the 'Social Life of Methods' (Savage, 2013)—the analytical study of how research methods can usefully become objects of inquiry when conceptualized as active actants in social and political processes; hitherto, much of this work has been focussed on developments which have their origins firmly within the academy (Savage and Burrows, 2007; Osbourne *et al*., 2008), but we argue, beyond thinking about devices, thought styles, intellectuals and methods located there, there is also a need for greater understanding about how hybrid institutions—such as the CES—have shaped the history of social research (Wyly, 2019).

In what follows, we focus on the years 1966 and 1975, to better understand the role of the CES in the development of urban studies in Britain. It is a complex story of a political project of attempted modernization which, for a period, connected the UK Government, the Ford Foundation, Fabianism, computational social science and radical urban theory within a common institutional framework. We focus, in particular, on the work of the Centre during the tenure of its second Director, David Donnison, rather than covering its full lifespan and eventual closure in 1979, following the withdrawal of public funding by the Thatcher Government.[3] By limiting the scope to its first quinquennium

1 Although our playful title could be viewed as an attempt to echo the infamous refrain from Latour (1993) that 'we have never been modern', it is probably fairer to consider our use of the notion in more mundane terms—as a political experiment in policy development using new computational techniques and progressive social science (Savage, 2010) to buttress innovations in architecture and design, community development and town and country planning. Elsewhere in the world, of course—Chile being the paradigmatic case—more radical experiments in technology-driven socialist modernization were also nascent at this time (Medina, 2011).

2 A useful introduction to the work of Fisher more generally, emphasizing its significance for geographers, has been produced by Sutherland (2023).

3 For a broader history, see Clapson (2003).

of Ford Foundation funding, we aim to examine how the CES established a role in leading debates about social planning and methodological innovation, and the emerging institutional relations between social science, government, commercial and philanthropic bodies prior to its eventual dissolution. In following the threads of this period, and in the spirit of hauntological analysis, the article hints at a possible counterfactual history, suggesting what direction British urban studies might have taken if the CES had not closed in 1979 (Renwick, 2012; Casper, 2013).

By 1975—at the peak of its powers—the CES was operating as a hybrid organization, part research institution, part think-tank, a dispenser of grant funding and a base for visiting scholars from the USA, Australia, Canada, Mexico, Austria, Iraq, Cuba, Israel and Japan. In focusing on this story, we draw partial connections between the CES and global histories of cybernetic ideas, systems analysis and the social sciences (Peters, 2017), not in order to valorize these attempts to modernize the governance of urban space within the social sciences, but, rather, to unearth an unlikely, albeit transitory, alliance between early computational social science and the emergence of Marxist-inflected urban theory (West, 2020).

The rhetoric of political modernization in the 1960s

In September 1963, Labour Leader Harold Wilson gave his famous 'White Heat of Technology' speech to the Labour Party Conference in Scarborough, the partial operationalization of which included an attempt to modernize government with science and technology (Edgerton, 1996). This was the 'Wilsonian moment' of political optimism, premised on harnessing the power of science and technology to achieve socially progressive ends (Coopey, 1991). On coming into power, the 1964 Wilson Labour government attempted to enact this vision by establishing new economic planning institutions, including the Department of Economic Affairs (Clifford, 1997), and even considered proposals for the demolition and reconstruction of Whitehall to provide an architectural form better aligned with this project of political modernization (Sharr and Thornton, 2013). The scale of this task quickly became apparent to the then Minister of Housing and Local Government, Richard Crossman, who was appalled to discover on his arrival that the Department of the Environment (DoE) did not employ a single statistician. Crossman had seen the impact that academics, such as Brian Abel-Smith and Richard Titmuss, based at the London School of Economics (LSE), had managed to have on government *social* policy, and wanted to initiate a similar development within *urban* policy. However, it was not just a matter of technical competence within the DoE that was lacking. There was also the growing realization that the siloed nature of policymaking was hopeless when confronted with the complex realities of poverty and deprivation, which were often the result of myriad factors—education, health, housing, employment and benefits—the responsibility for which were widely scattered across government. One former CES researcher told us that it was widely felt that single government departments were perceived as 'inadequate' to address complex urban and social issues.[4] Crossman very quickly became one of the principal advocates for the establishment of what at the time was to be called an Institute of Environmental Studies as a partial remedy.

The Ford Foundation had long had an interest in urban affairs and, along with the RAND Corporation, had supported technical efforts to integrate systems analysis with sociology for government planning, initiated at least in part in response to the Vietnam War during the 1960s (Bessner, 2014). It had funded the Institute for Community Studies (ICS), led by Peter Willmott and Michael Young, in East London in 1954 and, in the early 1960s, had helped to establish the Washington Center for

4 Interview with a former CES staff member, August 2023.

Metropolitan Studies at George Washington University (Clapson, 2003: 97–8). Crossman visited the Ford Foundation in New York with a delegation that included Roy Jenkins—about to become Home Secretary in 1965, and on his way to becoming the Chancellor of the Exchequer in 1967—and the lead planner of Milton Keynes, Richard Llewelyn-Davies[5] to discuss arrangements for the funding of such an 'Institute'. According to Clapson (2003: 98), much of the Ford Foundation's interest (which included the funding of two other urban research institutes, in Japan and Greece) reflected its own concern with learning from the British experience and aiding the UK to 'confront ... problems of urban growth, the new towns, and the slum clearance programme' (Clapson, 2003: 103). In this case of policy learning, the impetus for modernizing urban research within the UK was to act as a key node in a burgeoning research agenda in Western Europe. Some of these political ambitions were about establishing new sources of information and analysis for planning purposes within the UK, circumventing research conducted within the Civil Service, and fomenting a closer alliance between an emerging cadre of academic urban researchers and the requirements of government.[6]

Crossman's own account of the imagined role of this new institute was clearly articulated in his 1966 Fabian Society lecture, later published as *Socialism and planning* (Crossman, 1967: 11). To get a sense of the purported ambition for the Institute, Crossman's remarks are worth quoting at length:

> [W]e managed, with the help of the Ford Foundation, to get somewhere in the region of about £1 million for the establishment of a new *Institute of Environmental Studies*. This body, though it will have representatives of Whitehall on its board, will be completely independent. Its task will be to have an oversight of the research that is going on, particularly in British Universities; to be aware of the research requirements of the Ministries concerned with the built environment and so to feed out, particularly to our new social science departments in the new Universities, research contracts. These will relate not to the short-term problems of the Government (these are best covered by Governmental institutions) but to medium- and long-term problems ... It should form a model for a number of similar institutions providing the right nexus between Government intelligence requirements and the world of research.[7]

Such a manifesto, for the Centre's brief existence, led to the development of a hybrid institution that enabled academic social scientists to feed into policy deliberations and evaluation in the UK. Initially, CES leadership followed the Fabian strategy of 'permeation',[8] which involved recruiting and bolstering existing radicals within government within a broader socialist strategy. Several figures within the CES held positions within the Labour Party, as longstanding members, local councillors, parliamentary candidates or members of its National Executive Committee. To begin a process of influencing contemporary planners and researchers during 1967 and 1968, the CES established a series of 'Confrontation Panels'. For the CES management, these panels would provide a 'valuable link with planners in the field' and would receive reports from each study group about regional and practice-based developments in

5 Llewelyn-Davies, a Labour activist, was also Professor of Architecture at UCL and was already well known to the Foundation through a network of professional and social contacts in New York.

6 According to Clapson (2003: 101) at the time; 'British sociological journals ... contained many articles on urbanization and social problems that went unread by town planners ... More generally, the ... Ministry of Housing and Local Government showed little interest in social research and planning the physical environment'.

7 Indeed, later, the CES would function as a 'model' institution, informing the establishment of the Centre for Urban and Regional Studies at the University of Birmingham and the School for Advanced Urban Studies at the University of Bristol.

8 This strategy expanded upon Sidney Webb's notion, described by Bevir (1996: 184) as the 'idea of Fabian experts showing politicians what policies were necessary for an efficient society'.

planning authorities (TNA PRO 30/87/13).[9] Our interest in retelling the story of the CES within the context of the present conjuncture is thus to locate the ghosts of previous attempts to intervene in the relationship between the social sciences and policy development processes that appeared to be in crisis.

Establishing the Centre for Environmental Studies

The CES (as it had now become) began full operations in 1967, after initial meetings in the previous year, with Llewelyn-Davies appointed as its first Chair with a plethora of leading (male) academics and policymakers in support. The first couple of years were spent recruiting research and administrative staff, establishing offices near Regent's Park in Central London, and with staff spending a lot of time going 'backwards and forwards' between institutional roles, for example, between the Ministry of Transport and the CES.[10] At the same time a search for a suitable founding Centre Director was undertaken, a process described by Clapson (2003: 103) as 'little short of a debacle … [revealing] the shortcomings of personal relationships and informal networks'.[11] In order to examine in more detail how the CES was established and to better understand its development over time, we reviewed available archival records, including CES papers held at The National Archives (TNA),[12] papers held by the Archive of the Market Research Society and the LSE's Fabian Society, and the Melvin B. Webber papers held at The Bancroft Library at the University of California (UC), Berkeley. We also had discussions and email exchanges with four former CES researchers. In addition, we consulted life history interviews conducted with three other members of CES staff collected through the National Life Histories project at the British Library.

The archives suggest that, alongside Llewelyn-Davies, the search for a suitable Centre Director was led by Richard Titmuss (Stewart, 2020). He was by then one of three nominees for the 'first ordinary governors' of the Centre, along with Lord Holford, architect and town planner and the former President of the Royal Institute of British Architects, and Christopher Foster (who was, much later, to become the last CES Director), economist and Director-General of Economic Planning at the Ministry of Transport (TNA PRO 30/87/1). In selecting a candidate for leading the Centre, these governors 'gave long consideration to the Directorship and the type of man [sic] needed for the post. They came to the conclusion that it would take quite some time to find the right man who, it was felt, should have fairly close connections with research, as well as with Government and Local Government' (TNA PRO 30/87/1).

After two false starts (one candidate resigned almost immediately) (Clapson, 2003: 103–4), Professor Henry Chilver, a civil engineer at University College London (UCL), was appointed as part-time Director. He then 'recruited' Alan Wilson, at that time an up-and-coming mathematical model builder (later the vice-chancellor of the University of Leeds and the founder of a hugely successful commercial spinoff company specializing in urban modelling), as his Assistant Director,[13] and charged him with building a team of urban modellers; he remained in this position until he left to become a professor in the Department of Geography at the University of Leeds in 1970.

9 Codes such as this refer to the location of material in the CES folders held at The National Archives; more details are given in what follows.

10 Email correspondence with former CES staff member, April 2024.

11 As is apparent here and throughout much of what follows, the modernization project did not extend to equitable recruitment practices.

12 We reviewed 23 CES folders, including papers produced for the Governing Body, the Research Board, the Confrontation Panels and the Centre Committee. We also examined four Office of Population Census and Survey folders concerning the Working Group on Socio-Economic Classification of Areas.

13 Wilson (2012) relates how: 'I gave a talk on transport models in the Civil Engineering Department at UCL and in the audience was Professor Henry Chilver. I left the seminar and started to walk down Gower Street … he caught up with me and told me that he had just been appointed as Director of a new research centre—the [CES]—and "would I like to be the Assistant Director?" My talk had, in effect, been a job interview'.

Chilver's interests and skillset were not well aligned with the social sciences and/or planning research and he was, apparently, quite distant and not a good communicator.[14] Wilson was more charismatic and engaged, and was perceived by some at the time to be functioning as the *de facto* head of the organization. The first international visitor at the CES, Melvin B. Webber, the influential urban theorist and originator of the notion of 'wicked problems', based at UC Berkeley, was asked by Llewelyn-Davies to gauge the atmosphere. He wrote a long, critical report.[15] The following passage, about a meeting between CES staff and academic colleagues, is indicative:

> One member of the group later confided that they sounded 'like a bunch of amateurs.' I thought so too … even though some of them are the academic peers of the best in the world. I would wish that the Centre's influence will be such that, when it holds a similar meeting in four years, the level of discourse will command the attention of the most rigorous theorists in Europe.

At the Governor's third meeting in August 1968, Richard Titmuss recommended David Donnison, Titmuss' deputy at LSE, as a replacement candidate. Donnison was duly appointed CES Director in September 1969 and Chilver moved on to become Vice-Chancellor16 of the Cranfield Institute of Technology.

Donnison, with his background in social administration, was strongly of the view that central to the CES's research strategy was the need to maintain close relationships with Government departments, such as the DoE, and monitor its own research programme. He regularly attended several departmental research committees, such as the DoE's Research Requirements Committee, to scope out potential new commissions and funding opportunities. From the start of its life, constant negotiation took place between the CES, the DoE and the Home Office over resources, personnel and budgets. For example, writing to the Centre's Governors, Donnison noted how sociologists—at the time, held in very high regard—were moving into the Building Research Establishment, which directly impacted the Centre's profile within DoE. Between 1968 and 1975, Donnison's role extended between his academic research on 'micro-politics of the city', local government and planning, together with administrative duties, reporting and reflecting on the financial security of the Centre, and monitoring the Centre's relationships with Ministers, funding streams, political moods and departmental research needs. After a problematic start, the CES was up and running and quickly began to establish itself as a highly innovative presence across several domains.

Modernizing with interdisciplinarity: an office plan

Soon after its establishment, the CES became positioned amidst an increasingly complex ecology of national institutions with an interest in society and planning (the Crossman vision in an embryonic form). Along with the Social Science Research Council, established in 1965, the CES also worked closely with the Royal Institute of Public Administration and the ICS. Michael Young had been the founder of ICS and later became the first Director of the Social Science Research Council, and he also worked closely with the CES. The CES also occupied a strategically important position in relation to central government departments—the DoE and the Home Office in particular—and worked with local government planners and philanthropic bodies, such as the Runnymede Trust, and both UK and international academic institutions.

14 Clapson (2003: 104) reports David Donnison as saying, 'I never understood a word he had to say … I sometimes wondered if this was a deliberate strategy'.

15 Webber, M.B., 'Concerning the Centre for Environmental Studies'. Memo to Richard Llewelyn-Davis, Martin Meyerson, Henry Chilver and Alan Wilson, 30 April 1968. Melvin Webber Papers MSS 2007 154, Carton 9.

16 It is noteworthy just how many staff from the CES ultimately became senior managers in the university sector.

Once established with a five year Ford Foundation grant and support from the DoE, the Centre soon began to expand by accumulating research grants and contracts from a network of local authorities and philanthropic and social science research funders alongside the Ford Foundation.

This network of institutions provided a context for CES researchers to stimulate—through managing research contracts, publication series, conferences, seminars, university courses, discussions, fellowships, visits and grant funding schemes—a new kind of urban and regional study. This was an urbanism that, for a short period, was managed via centralized coordination between central government officials and local planners. It was an urbanism that sought to identify government officials' need for new information, analytical frameworks and computational techniques for planning urban and regional spaces.

To undertake this task, by 1973, the CES had assembled an impressive set of researchers in a 'cerebral' atmosphere, many of whom would come to play a significant role in British and international urban and regional studies. We do not have the space here to detail the backgrounds and activities of the more than 50 staff (and visitors) noted in the office plan detailed in Figure 1, but several, in no particular order, are worth noting.

On the top floor of one of the CES offices configured around Cambridge Terrace, Cambridge Terrace Mews and Chester Gate, near Regent's Park in Central London, we find William Solesbury, Hugh Stretton and Harold Wolman all sharing a room. Solesbury was spending a sabbatical year at the CES from the DoE, undertaking a project on the operation of national pressure groups and watchdog agencies in the environmental policy field, funded by NATO's Committee for the Challenge of Modern Society. Stretton was a hugely influential historian and urbanist otherwise based at the University of Adelaide in South Australia.[17] Wolman, then based in the Politics Department at the University of Massachusetts, was completing a book on council housing as a social service. Max Neutze was another visitor from Australia, sharing a room a few floors down, otherwise leading the Urban Research Unit at the Australian National University, where he would later become Deputy Vice-Chancellor. Neutze was close to Donnison and was influential in cultivating ongoing exchanges between Australia and the CES. The Director, Donnison, was in the office next to this one.

Elsewhere in the complex of buildings, the former chief planner of the Greater London Council, David Eversley, held an honorary position. Elsewhere in the building worked the sociologist Michael Harloe and the political economist Michael Ball. Harloe would go on to become the founding editor of *IJURR* and, later, the vice-chancellor of the University of Salford, following an academic career at the University of Essex. Ball would go on to develop highly influential Marxist-inflected work on the political economy of housing (some of it with Harloe), before working on more mainstream real estate economics at the University of Reading. Peter Marris had joined the CES in September 1972 after working with Michael Young, Peter Willmott and leading poverty researcher Peter Townsend (Renwick, 2023) at the ICS for several years. Next to Marris in 12 Cambridge Terrace Mews was Cynthia Cockburn, researcher and political activist, who had been appointed as the very first CES research officer in January 1968 and who prepared Inter-Project Reports for the Home Office's Community Development Projects (Bertrand, 2017). Doreen Massey, who had joined in October 1968, had an office close to those of Richard Barras and Andrew Broadbent in 2 Chester Gate; together they, following the departure of Alan Wilson in 1970, formed the core of the CES Urban Systems Group working on the application of game theory, linear programming and operations research to studies of industrial location and urban planning. Prior to joining

17 Where there now exists the Stretton Institute, which was, until 2023, directed by Adam Graycar, a leading Australian public policy analyst, who himself was a visitor to the CES in 1975.

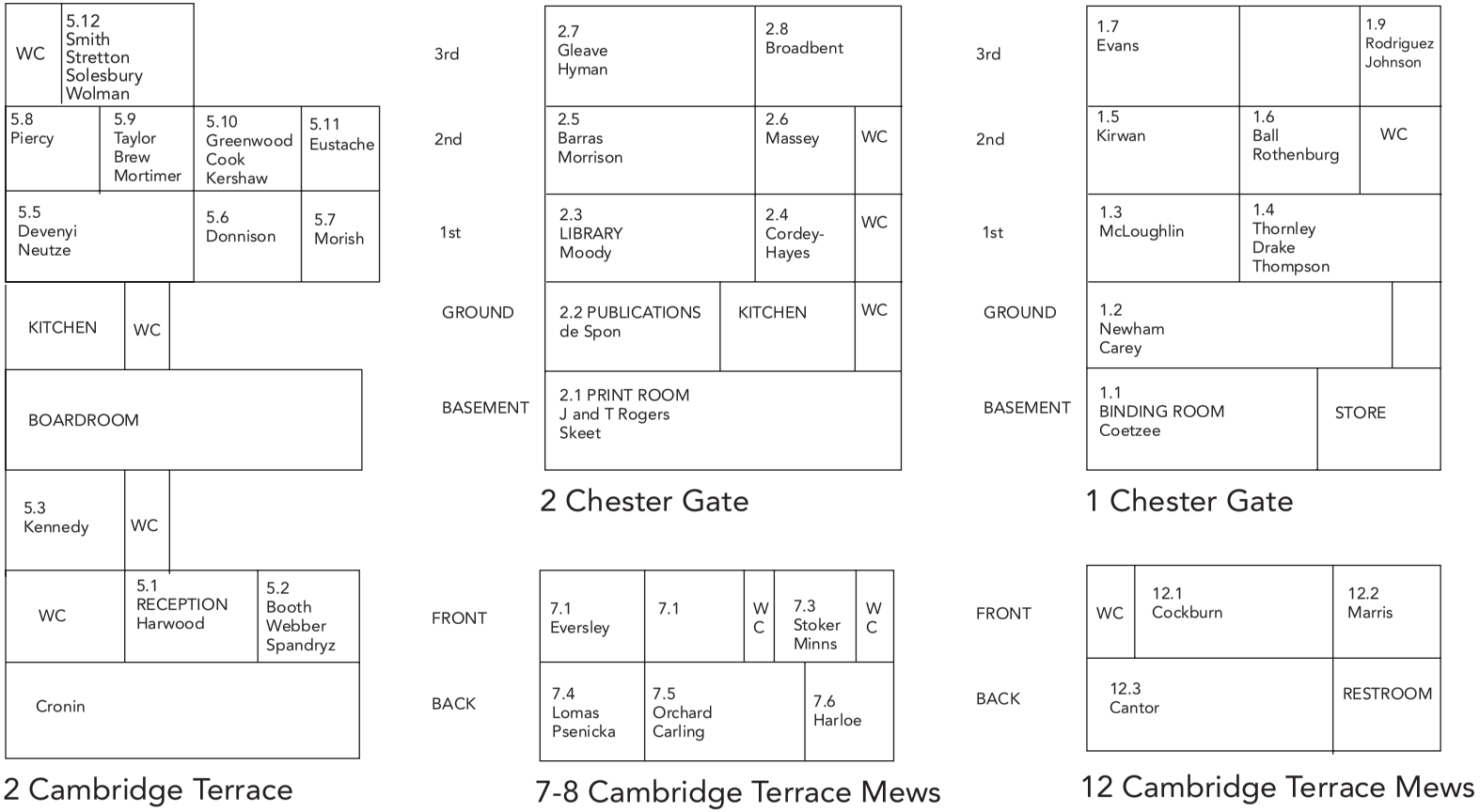

FIGURE 1 Adapted from the CES document, 'Accommodation at CES', from October 1973. TNA PRO 30/87/23 (produced by the authors)

the CES between 1966 and 1968, Massey had worked for a market research firm, AGB Research Ltd, in the computer department (Kitchin, 2016: 813). 'Doreen Massey starts!', one former member of staff wrote in a July entry of their diary.[18] Her shift away from work on computational and quantitative social science towards her now more well-known research on space, place and gender (Massey, 2005) is something we will return to below.[19] Finally, Richard Webber, appointed in July 1973, was also working on a different aspect of computational social science, the application of cluster analysis to spatial data, which, within a few years, would result in the birth of the commercially hugely successful technology of geodemographics (Webber and Burrows, 2018; McKelvey, 2022).

This particular configuration is simply a snapshot taken in 1973, 1 month after the Chilean coup d'état, when Massey and others walked out of these offices to protest at the Chilean Embassy offices in nearby Marylebone.[20] There was a huge amount of staff churn during the existence of the CES, and we will come across more examples in what follows. Amidst this churn of resources, departmental needs, staff and ideas, the CES operated as an important interdisciplinary clearing house for academic (research and senior management), commercial and governmental careers, along with the circulation of methodological innovations.

Modernizing with theory: picnics in the park[21]

Next to the Centre's offices, Regent Park was the location for lunchtime picnics and discussions between researchers. At these picnics and within its offices, the nature of discussions at the Centre seemed to be indebted to three main intellectual traditions: *Fabian socialism* and reformist approaches to social and community planning, led by the influence of its political patron, Richard Crossman, and researchers, such as Michael Young and Peter Willmott, who worked in and around the Centre, largely informed by broadly Weberian theoretical frameworks;[22] early developments in what we might call *computational social science*, encapsulating systems theory, spatial modelling, cybernetics, advanced multivariate statistical analysis and other members of the 'modelling community';[23] and at the 'margins', some CES staff had begun to engage with more radical, often Marxist-inflected—the work of Althusser and Castells in particular—*new urban studies*, much of which would only be fully 'activated' upon leaving the CES to work within higher education (Huxley and McLoughlin, 1985).

The relative balance of these broad categories clearly shifted over time and the supposed marginality of the third, more radical and theoretical, strand of work has been questioned, with Healey (1994: 344) claiming that it was often foregrounded to an extent that was detrimental to what she regarded as more practicable systems-based approaches. This foregrounding seems to align with the recollections of Doreen Massey. In an interview she gave in the summer of 1998 she recalls how the CES 'turned out to be very radical. It was an amazing bunch of people, an extremely productive intellectual and political environment. A lot of sociologists, physicists, economists, geographers—a huge range, and very intellectually alive' (Freytag and Hoyler, 1999: 84); it was a radicalism then characterized by interdisciplinarity and critiques of neoclassical and

18 Email correspondence with former CES staff member, April 2024.
19 It is interesting to note that David Harvey, at the point when he was shifting away from his concern with quantitative explanation in geography towards issues of social justice and Marxism, spoke at CES seminars. An interesting commentary on this shift is provided by Massey (1974). Ray Pahl was also a frequent visitor, offering more Weberian perspectives.
20 With thanks to one of the article reviewers who shared this account, told to them by Doreen Massey. This incident was perhaps indicative of emerging tensions between various leftist and progressive factions which we briefly summarize below.
21 The title of this subsection is in reference to an anecdote shared with the authors about an impromptu job interview for a research role within the CES taking place within Regent's Park.
22 Interview with former CES staff member, December 2023.
23 Interview with former CES staff member, April 2024.

systems-based approaches, as well as a burgeoning interest in more radical political theory.[24]

When the CES was formed, there were limited institutional spaces and resources for radical urban scholarship. *Antipode* was an important early outlet in 1969. Within the CES, however, initial concerns were more technocratic. *Environment and Planning* (*E&P*) was founded in the same year. Massey would be involved in both publications. She later wrote that *E&P* was born from 'complicated politics—this mixture of repression and hope for a different future' (Massey, 1993: 10). *E&P* was initially edited by CES Deputy Director Alan Wilson, with Massey partly hired to work on it, driving the 'quantitative and modelling agenda', and was, in effect, the journal of the British section of the Regional Science Association.[25] The English translation of Manuel Castells' *The urban question: a Marxist approach* did not appear until 1977 (translated by Elisabeth Lebas, herself a visiting researcher to the CES in 1978), and *IJURR*, institutionally located within the CES for editorial purposes, but largely the product of the International Sociological Association's Research Committee 21, also first appeared during the same year.[26] One former CES member of staff noted the divisions within this community, with the radical geographers having *Antipode*, although 'we didn't go to their conferences and they didn't go to ours'.[27] Cynthia Cockburn, through her activism and research, was clearly familiar with all manner of anti-racist, environmentalist, feminist and socialist literature. Marx was beginning to be (re)read by many, but it was one version of Marxism—that associated with Louis Althusser—that had the most impact.

Althusser's structural Marxism had already begun to influence Castells in the early 1970s during his time in Paris, and some in the CES were beginning to familiarize themselves with the approach. However, it was Massey upon whom the impact was probably the greatest, after she was hired to 'fill gaps in knowledge' on Industrial Location Theory.[28] Her 'conversion' took place in the most unlikely of environments, as she explains:

> I never did a PhD, but I did an MA during the time I was at the CES. I went in 1971/72 to the University of Pennsylvania in Philadelphia to do economics, mathematical economics. I did that because I was becoming increasingly critical of the mathematical models that we were doing, and the location theory which I had been taught previously, because of their basis in neo-classical economics. But on the other hand, I had never done training in neo-classical economics, so I felt, 'one has to know the enemy', in a sense. I went to Pennsylvania, to the Wharton School, into the Regional Science Department. But while I was there, I met a group of French Marxists, who were very much into Althusser. I got very involved in French philosophical discussions about French structuralism. Personally, that was more important than the regional science. That started another train of intellectual thinking (Freytag and Hoyler, 1999: 86).

Prior to her engagement with Althusser, Massey described herself as 'a feminist socialist … quite cautious about Marxism … [but] … [r]eading Althusser completely changed that' (Freytag and Hoyler, 1996: 86). For her 'through reading Althusser, I began to see a way of reading Marx which I found politically acceptable' (Freytag and Hoyler, 1996: 87). Michael Dear, who travelled with Massey to study in Philadelphia,

24 As Massey related it, so radical that, in 1979 the CES was 'abolished … one of the first things that Thatcher did when she got into power … But … the Labour Party … was also finding it too left-wing. It had become a centre for left-wing thinking within urban and regional analysis' (Freytag and Hoyler, 1999: 85).
25 Thanks are due to one of the article reviewers for pointing this out. For further details see Barnes (2018).
26 See https://www.ijurr.org/virtual-issues/ijurr-1977-2017-40th-anniversary-virtual-issue/ for details of the history of the journal.
27 Interview with former CES staff member, October 2023.
28 Interview with former CES staff member, April 2024.

recalls how she combined this growing interest in Althusser with seminars on Gramsci, Poulantzas and the Frankfurt School, while attending classes in linear algebra, statistics and 'something called "regional and social science theory"' (Dear, 2018: 68). Massey returned to the CES and the first thing she did was to write 'Towards a critique of industrial location theory' (Massey, 1973). Her new openness to Marxism led later to the production of her book on *Capital and land* (Massey and Catalano, 1978) and all that later followed during her tenure at the Open University.

The extent to which these three relatively autonomous institutional segments managed to cooperate is a moot point. Some colleagues working on the computational side of things seem to have been disinterested in (and possibly oblivious to) the activities of the 'radicals', while many of the staff not well grounded in mathematics and statistics found many of the results coming out of the modelling projects unintelligible. Some though, Massey being emblematic, managed to productively engage across all three.

Modernizing with computational social science

Alongside such nascent radicalism and innovation, and perhaps in reality at the core of CES activity, sat a group of researchers with perhaps (initially at least) more technocratic orientations to the urban question. We have already noted the importance (which continues today) of the urban and transport modelling undertaken by Alan Wilson and colleagues before taking up his appointment as Professor of Urban and Regional Geography at Leeds University. However, this was also a time when developments in cybernetics were of interest to social scientists.[29] Cybernetic ideas, and a more general interest in the application of *systems theory* to urban problems, featured as an important stream of work within the CES. The archive demonstrates a near constant throughput of visitors and staff, with interest in the development of techniques for analysing the interdependence of systems. With this movement of personnel, ideas and techniques for computational analysis, and with the increased availability of census and local authority data for spatial modelling, the CES offered significant institutional investment in the generation of computational spatial modelling techniques and careers. The CES invited researchers such as Sydney Saltzman, who arrived from Cornell University in 1974 on a NATO Science Faculty fellowship, and Maria Devanyi, who arrived in 1973, a planner with the Hungarian Institute for Town and Regional Planning Research, both with interest in mathematical modelling and applying quantitative methods and systems analysis to urban and regional policymaking (CES, 1974; 1975). The CES researcher Martyn Cordey-Hayes gave papers at symposia hosted by the International Institute of Applied Systems Analysis and was based at that Institute in Vienna during 1974.

Within the CES, the notion of the urban environment as a *dynamic system* was treated as a useful concept for advancing accounts of the complexity and interdependence at the heart of urban life, enabling the formulation of tools and information sources for planners to enact controls on dynamic socio-economic spatial processes. By sponsoring the practical application of concepts such as entropy, equilibrium, systems and interdependence, the CES institutionalized a new disciplinary arrangement to produce techniques for spatial analytics. To this end, during the first 2 years of the Centre's operations, a strong interest was taken in the development of modelling techniques through computational automation, along with a broader programme of research focused on the city and urban regions' politics, economics, housing planning and 'social mix' (CES, 1969a). As already noted, some of the technical requirements around these projects, or their links with systems theory, seemed inexplicable to other members of

29 Just as it is in 2024, with the continued fascination with the intoxicating combination of data, politics and technology, and intellectual 'gurus' of the cybernetic revolution, such as Stafford Beer. For further discussion of both, see Figueroa (2023) and Medina (2011).

staff. From 1971, much of this work was undertaken by a quasi-independent CES office, based in Reading and London, called the Planning Research Applications Group (PRAG). This group undertook applied research for central and local government with the aim of 'help[ing] authorities benefit from new methods of tackling strategic planning, structure planning, resource allocation and so on' (CES, 1977: 19), combining techniques which were 'cheap and simple to use with data of a kind that is already usually available' (*ibid*.).

The Royal Institute of Public Administration, the initial co-sponsor of PRAG, pulled its support in 1973, triggering discussions within the Centre about incorporating its operations or enabling it to become an independent Trust or company. Methodologically agnostic but preoccupied with applying sophisticated theoretical and quantitative techniques, PRAG's operations were incorporated into the CES in 1974, rather than 'giving it an independent status' (CES, 1975: 34) and became part of the Centre's general research efforts. The Group aimed 'to develop basic research into useable methods and procedures for planning authorities and other executive agencies'.

– Operationalizing data for spatial modelling

From the start, the CES took a strong interest in the availability of information and data for understanding the urban and regional environment. This transitory period in Massey's urbanism, between computational research and radical geography, indicates the possibilities of rethinking how operational research on space acted as a training ground for radical critique of spatial economies in the early 1970s. For CES researchers, such as Massey, there was a strong interest in developing models with available data, combined with testing the limits of predominant models such as the RAND-sponsored Lowry model of dynamic urban and land systems (Lowry, 1964) and formal structural models of retail and industrial locations (Batty, 1969), and recirculating these ideas in debates within Labour Party policy on land and nationalization (Weiler, 2008). With her colleagues within the Urban Systems group, Andrew Broadbent and Richard Barras, Massey wrote an article for *Labour Weekly* in 1973 ('A land policy for speculators to grow fat on'). The following year, Massey also spoke at a meeting of the Fabian Society on 'policies for land nationalisation', and was on the Labour Party NEC Sub-Committee, Town and Country Planning in 1975/1976. Her fully fledged Marxist-inspired book on *Capital and land* followed a few years later.

It is interesting to note Massey's reflections on this period of her work. In an interview in 1998 she explained:

> One of the things I thought about mathematical modelling at the time, or modelling in general, modelling cities in order to be able to plan them, was that at least one was making explicit the idea of the city that you had in your head and the choices that were available. So, by making them explicit they became open to democratic engagement. I would now say that that was not a sufficient reasoning, it was an insignificant reasoning in relation to the way we ended up modelling the cities. We didn't justify it, but at the time I did think that there was something potentially positive about that way of thinking (Freytag and Hoyler, 1999: 84).

Massey and other CES researchers continually engaged in efforts to operationalize data sources for spatial modelling. At one of the first Governors' meetings in January 1967, alongside proposals for organizing its office and programme of research, a paper authored by the (then) Assistant Director, Alan Wilson, titled 'An outline of a suggested preliminary paper on information, data banks, and computers in planning', discussed the steps that the Centre should take with computer technology. The first step was to review computer development and hardware, then 'discuss compatibility

problems which arise because planners in practice would use several different makes of computers' and 'make guesses about future computer developments … and assess their influence on the planning problem' (TNA PRO 30/87/12). By 1968, the CES had begun to position itself in the middle of a complex network of technically orientated researchers, information sources and computational resources. Over this period, staff research was organized into three areas: urban development and structure plans; urban renewal and economics; and information systems and computing (TNA PRO 30/87/3). The Urban Systems Group led much of the Centre's complex, data-intensive computational work. It initially focused on theory development and the applicational of operational research in spatial modelling. As described in a review of research groups written by Martin Cordey-Hayes in 1973, this group developed new strands of theoretical research on planning:

> D Massey has just begun a project which investigated an aggregate hierarchical approach to industrial location theory. Existing industrial location theory is strongly oriented to the behaviour of individual firms and is of limited use in strategic planning. The project is to examine ways of overcoming the problems of sectoral and spatial aggregation to produce methods more appropriate to strategic decision making.

In addition, PRAG, managed by Barras and Broadbent, led work on factor analysis and input–output analysis and utilized computers to analyse large datasets. Between PRAG and the Urban Systems group, there were few other CES staff with sufficient competence to evaluate the work of its quantitative researchers. This led to engagement outside of the CES, with planning teams, international systems research networks and access to supercomputers within London. In 1968, researchers in the Urban Systems group worked on pilot projects for Cheshire Council on problems related to the design of information systems to support 'model-based planning procedures' for economic forecasting (CES, 1969a: 20; Barras *et al*., 1971). That same year, one of the PRAG researchers visited the International Seminar on Information Systems for Urban Planning in Czechoslovakia, which was sponsored by TERPLAN (the Czechoslovak Institute for Regional Planning) and the City Development Research Institute at Ostrava (CES, 1969a: 29). By 1971, PRAG began to plan its computational costs and arranged to use a supercomputer housed at the University of London.

– Urban clustering and spatial segmentation

The Centre's first conference paper publication, relating to an event held on June 1970 on the 'construction and use of small area input–output tables', had already signalled the CES' strategic interest in discussing 'operational problems' with the government statistical services. A two day conference on 'Information and Urban Planning,' held in May 1969, focused on using information in urban and regional planning, including sessions on aerial surveying. A background paper for the conference indicated some of the prospects and challenges with organizing, collecting, storing and using data for understanding 'the complex inter-relationship in the urban system' (CES, 1969b: 11). To give one example of the application of these interests for national and local planners, by 1968, the CES had begun to test the possibility of using census data for population segmentation, in short, trialling cluster analysis for geodemographics. Researchers from the CES worked on 'social area analysis' and publicized the products of spatial segmentation exercises undertaken by researchers at the Greater London Council. In 1971, as part of a study on London, its urban patterns, problems and policies, managed by Donnison, a researcher from the Greater London Council presented research on social polarization and social mix (Harris, 1973); this highlighted analysis conducted with a computer programme to calculate measures on the 1961 and 1966 Census data on

'economically active males' within Greater London, classifying these into seven socio-economic groups.

While CES researchers had begun experimenting with using factor analysis for planning in the late 1960s, this work was accelerated by the development of computational clustering techniques for area classifications using census and local authority data. In May 1975, the Second Progress Report for the Office of Population Censuses and Surveys (OPCS) Multivariate Socioeconomic Classification of Areas Working Group noted that the OPCS had held 'discussions between Messrs Craig, Wishart and [Richard] Webber [CES researcher] to see whether it would be mutually advantageous for CES to be involved in the OPCS project' (TNA RG 19/736). Over the following three years, the OPCS and the CES worked on a range of clustering exercises, resulting in a prototype segmentation tool, initially known as the Classification of Residential Neighbourhoods, later widely used in the commercial sector where it became known as ACORN (A Classification Of Residential Neighbourhoods) (Webber, 1977; Webber and Burrows, 2018).

With the combined financial support of the Treasury and the Ford Foundation, the CES was established to improve the quality of urban research and to develop international networks of planning expertise, rather than to directly advise the government (Kulić, 2022). However, CES research had a significant impact on government experiments in rethinking the computational basis for urban and regional planning, along with subsequent developments in 'commercial sociology', namely through the development of computer-enabled analysis of census data and classifications of residential neighbourhoods (Clapson, 2013; Webber and Burrows, 2018). By linking such computational social science experiments with these political origins, retelling the story of the CES provides a critical context for recent scholarship emphasizing the history of computational methods (Geoghegan, 2023).

Concluding thoughts

This article has detailed the origins of an unlikely arrangement between computational social science and emergent radical social theory within the CES between 1966 and 1975, returning to this institutional experiment to reflect on 'lost futures' within the origins of contemporary urban studies. It has explored how this unlikely institution brought together embryonic Marxist analyses of cities, debates about urban futures and new techniques for researching urban and regional space. This conjuncture brought about a political experiment in modernization through producing an institutional setup for applied progressive social science to understand urban and regional environments, comparable with unfulfilled designs ventured in the 1960s for a monorail in Milton Keynes (Clapson, 2013) and a 'Thinkbelt' of universities in Staffordshire (Martin, 2014). The article invites speculation on how interdisciplinary scholarship may continue to be haunted by the unfulfilled potential of these possible futures, shaping the subsequent direction of urban studies in Britain.

Understanding the CES experiment involves seeing it as a training ground for 'new' urban studies, enabled through institutional links between state and philanthropic support, political radicalism and methodological innovation. Through its arrangements with the DoE, the Home Office and the Ford Foundation, CES staff used computational techniques to model urban systems and developed analytical tools for local and central planning. This manifested in specific methodological techniques that continue to have a life after the CES, such as census-based (and, now increasingly, 'big data') geodemographic clustering. Taken together, these institutional arrangements, theoretical orientations and computational tools haunted the directions taken by urban studies in the subsequent five decades, following the CES's closure.[30]

30 A 'ghost' of the CES still lives on today in the form of a company called CES Ltd Economic and Social Research, with Andrew Broadbent as the research director.

By the end of the period covered in this article, CES researchers anticipated that this political experiment was coming to an end. Despite the faith in using social science for progressive planning, we heard from former CES researchers that, by 1975, the institution had begun to lose faith in the possibility of planning. This loss of faith still haunts contemporary social science (Savage, 2020). At the end of this period, as David Eversley published an optimistic vision in *The Planner in Society* (Eversley, 1973), unprecedented events, such as the 1973 Oil Embargo and the first international internet communication sent from California to Norway via London (Wyly, 2019), had begun to undermine one central idea about planning: the assumption of a *stable environment*. In retrospect, we know that such events in the mid-1970s signalled the start of epochal shifts—the fifth Kondratieff wave, post-Fordism or whatever theoretical characterization suits—and all the dynamic instability associated with neoliberalism.

Adding a new director, the economist Christopher Foster (who, as we have discussed, had been involved at the inception of the centre), brought a different atmosphere to the Centre, instigating a culture of staff appraisals and a less relaxed atmosphere. With significant external shocks undermining the Centre's central assumptions along with a change in leadership, staff began to recognize, we were told, that it was no longer the same place to work, and serious doubts emerged about the possibility of predicting stable parameters to accurately develop models of spatial dynamics of the city. At the time of the Centre's closure, we can also see the rise of a new ideological orthodoxy, embodied in a set of right-wing think-tanks, such as the Institute of Economic Affairs, and the emergence of radical libertarians and Thatcherite neoliberals (Slobodian, 2023). One former CES researcher told us that they would have been aware of the Institute of Economic Affairs, but said, 'it wasn't regarded by us or the mainstream as intellectually respectable'.

With the demise of the CES, the concentration of computational capacities, methodological and theoretical radicalism was disbanded, subsequently haunting future urban institutions and research careers. In the wake of the closure of the CES, former researchers took up a new position vis-à-vis the new political and economic order to develop often Marxist-influenced ideas about urban questions within universities such as Essex, Birkbeck, Melbourne and the Open University. Many of these researchers had prominent careers in the academy and private sector after its closure. To put it plainly, several made contributions to radical urban theory; others made personal fortunes, either through acting as consultants or repurposing computational techniques for marketing and commercial interests. Upon the dissolution of the CES in 1979, universities were in a precarious financial situation, and there were faltering attempts to negotiate partnerships with several academic institutions in London, which all failed.

On reflection, we would note that reconstructing this institutional history allows us to tentatively venture counterfactual claims about discontinued paths and our haunted present. Just as artificial intelligence and machine learning are expected to impact on theory, method and politics within contemporary urban studies (Cugurullo *et al*., 2024)—as witnessable in the significant investment in ventures such as the Alan Turing Institute (of which Alan Wilson, much later in his illustrious career, became Chief Executive)—earlier experiments with computational techniques, most notably geodemographics, spurred by the CES, eventually moved out into unexpected commercial, academic and governmental applications. Perhaps, if the CES had not closed in 1979, British urban research might look very different today. The attempt to modernize urban studies through such an inventive interdisciplinary organization open to new computational methods would have led to a very different configuration of British urban studies.

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