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The big bang

Noel was this Moses, bringing these two books – ‘here are the tablets, this is going to take the discipline forward’.

David Merrett, March 2015

In 1949, while sharing a house together in Hurstville in Sydney’s south, economics lecturers Noel G. Butlin and Heinz Arndt won permission from the New South Wales statistician to examine Coghlan’s papers, sources long since forgotten in the bottom of an inner-city basement. As Arndt recalled, ‘for three days, stripped to the waist, we worked in indescribable grime, sorting thousands of volumes on to shelves’. They eventually found the needle in the haystack: handwritten notes of Coghlan’s estimates of aggregate output in colonial New South Wales. The result was an article where the two young scholars interrogated the nature of Coghlan’s estimates and compared them with contemporary national income accounting frameworks. While Arndt quickly moved on to other work in economics, this project was the start of Butlin’s pre-eminence in Australian economic history.

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1 Merrett interview with author. Unless otherwise specified, interviews cited are those conducted by the author; see Appendix for details.
Noel Butlin is Australia's most influential economic historian. Contemporary colleagues argued his writings ‘dominate’ the field, and that his work was instrumental in developing the ‘intellectual identity’ of members. To this day Butlin has been praised as the source of the ‘orthodox’ reorientation of Australian economic history. He is also remembered at an annual lecture at the Economic History Society of Australia and New Zealand, with his life and achievements introduced in well-worn reverential phrases. In this chapter, the focus is on a more complex story of Butlin’s legacy – embedding his contributions within his professional context, and recognising the broader structural and social forces that enabled this intellectual movement. Doing so incorporates a greater understanding of the labour of producing great works, as well as revealing the ways that universities can encourage and support the production of interdisciplinary knowledge.

The words and the numbers

The ‘orthodox school’ – a term coined by economic historian Chris Lloyd and adopted for the remainder of this book – refers to the body of work in Australian economic history that emerged alongside, or was inspired by, Butlin’s two influential volumes, colloquially termed ‘the numbers’ and ‘the words’: *Australian Domestic Product, Investment and Foreign Borrowing 1861–1938/9* (1962) and *Investment in Australian Economic Development, 1861–1900* (1964). In the former, Butlin compiled Australian historical national statistics within a national income accounting framework. In the latter, Butlin used these statistics to describe the sector-by-sector...
mechanism of growth in the latter half of the nineteenth century. These
two books were built on over a decade of research, with preliminary
estimates published in the mid-1950s, and two articles published in
*Economic Record* in 1958 and 1959.7

Figure 2: Professor Noel G. Butlin, ANU, 10 October 1989
Source: ANU Archives, ANUA 225-168.

Butlin’s big statement, and arguably the feature that he has been best
known for, was that the Australian economy was an important and
interesting thing to study – not as a footnote to the industrial revolution;
not as a British outpost; not as subject to the vicissitudes of international
trade. In this he differed fundamentally from both Shann and Fitzpatrick’s
discussions of externally led economic development and exploitation,
respectively. In ‘the words’, Butlin argued that urbanisation and domestic
manufacturing (rather than export markets) were the dominant industries
in Australia from the 1870s. When he first stumbled across this evidence
in the mid-1950s, he and research assistant and later population expert,

Social Science Monographs 2 (Canberra: The Australian National University, 1954); Noel G Butlin,
*Private Capital Formation in Australia: Estimates 1861–1900*, Social Science Monographs 5 (Canberra:
Australian National University, 1955); Noel G Butlin, ‘The Shape of the Australian Economy, 1861–
H. de Meel, seemed surprised. They initially thought that Australia’s ‘intimate links with the British economy’ would suggest that domestic economic activity should move with Britain’s. However, they found no consistent relationship between the two, and speculated that comparable increases in the value of exports and imports over this period meant that trade may have played a minor role in determining growth.

Butlin’s second key internalist conclusion was that structural disequilibrium from speculation on the real estate market and inefficiencies in railway construction caused an initial downturn before the 1890s depression. In 1955, Butlin argued that the willingness of Britain to invest was important for Australia’s economic progress in the nineteenth century, though he was adamant that this was only part of the story, and ‘in some respects, not the most interesting part’. He argued that Australia sought out British investment in this period, and that although railway building was made possible by the increased supply of overseas funds, it was ‘more importantly’ possible through rising local revenues. Butlin’s agenda was clear: although he acknowledged important external factors, they were, in his mind, not the ‘most important’ or ‘most interesting’ factors.

Butlin is famous for his approach as well as his interpretation. Taking cues from Coghlan’s proto-national income accounting, Butlin set out without a theoretical framework, arguing instead that the ‘whole approach has been framed with the particular circumstances of the Australian economy […] in mind’. He made some manipulations to the data, such as interpolation, extrapolating from small samples, and applying ratios between variables across time and place. However, he built his narrative of economic growth inductively by applying concepts to the trends found in his evidence. Butlin took Coghlan’s work very seriously, with W. A. ‘Gus’ Sinclair recalling that Noel ‘didn’t have time for anyone else who had written on Australian economic history apart from Coghlan’. Having said that, Butlin was cautious not to make the same mistakes Coghlan did, criticising the latter’s lack of source information and description of
methods and the resulting ‘tragedy’ that the work had been disregarded by some in the economic history community.\textsuperscript{14} As such, Butlin included an immaculate description of the way his statistics were compiled.

Although there was no explicit theoretical basis, implicitly Butlin’s logic was a mix of neoclassical individualism and Keynesian macroeconomics. Regarding the former, he emphasised market signals and the decision-making of rational economic actors. To the latter, Keynes was introduced through Butlin’s emphasis on the duality of the public and private spheres, a focus on the macroeconomy, his acceptance of capital formation as a key engine of growth and the use of quantitative measurement as the basis for public policy intervention. Although his focus on market signals was neoclassical, arguing that instability was due to non-rational responses to market signals was reminiscent of Keynes’s contribution on herd behaviour. Keynesianism of a similar flavour dominated the economics discipline at the time, particularly in the policy circles through which Butlin was mentored. He was ‘manpowered into the […] Department of Post-War Reconstruction’ as soon as he finished his undergraduate degree in 1942.\textsuperscript{15} He spent about a year working for the department, before being sent to Washington and then to London as a public servant. The latter role involved ‘virtually a six-month continuous seminar from John Maynard Keynes telling the assembled company from the Dominions and colonies how economics should be handled’.\textsuperscript{16}

Many at the time recognised that Butlin was on a good wicket. Adelaide economist H. F. Lydall explicitly likened Butlin’s work to other prominent national income accounting historians, arguing that ‘what [Simon] Kuznets did for the United States, and Phyllis Deane and others for Britain, has now been done by Noel Butlin for Australia’.\textsuperscript{17} Melbourne economic historian Ernst A. Boehm agreed that the work was significant through ‘the stimulus […] given to economists and historians to contribute with Professor Butlin to a more definitive Australian historiography’.\textsuperscript{18} Labour economist Keith Hancock attributed the maturation of the field

\begin{flushleft}
14 Butlin, Investment, xv. \\
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in the 1960s to Butlin’s work, arguing he had made the subject ‘one of the most fruitful fields of research at the ANU’. Oral history sources have also largely confirmed the prominence of Butlin’s approach, arguing that it came from providing innovative interpretations of Australia’s development, and the determination and stamina to unearth a wealth of primary quantitative data. Fitzpatrick, eloquently as always, passed the torch to a new generation of economic historians:

It is immaterial that our much-read Australian theses are qualified and corrected and transformed, that Shann climbs over Coghlan and Fitzpatrick over Shann and a whole formidable family over Fitzpatrick. It is enough for any sensible, conscientious tradesman, having that touch of creative imagination without which nobody can contribute to the advancement of knowledge of history, that he won, and for a time held, a place in the procession.

Butlin’s ‘revolution’ was hard to pull off without ruffling a few feathers. Criticism centred on the construction of the statistics, with some urging caution due to the occasional use of small samples and filling back from census data taken every 10 years. Fitzpatrick gently questioned the validity of statistics collected by government statisticians, on which Butlin’s work was based. Boehm criticised the aggregation of statistics across Australia, arguing that there was quantitative and qualitative evidence to suggest economic development fluctuated between each colony. There was also criticism of Butlin’s underestimation of some elements of private investment, and of the limited, cursory price index.

Wool values generated a bit of a nasty exchange with Alan Beever at the University of Melbourne. In Economic Record, Beever acknowledged that Butlin’s work was an ‘invaluable pioneering study of Australian social accounts’, but that the use of pre-Federation trade statistics overvalued

20 Boot; Dingle/Davison; Gregory; Macintyre; Pincus; Sinclair; Troy interviews.
23 Fitzpatrick, ‘Counter Revolution’, 211.
wool by a considerable margin. Butlin defended the use of trade statistics, arguing that Beever proposed a ‘tantalizingly simple solution’ to the very complex issue of wool values. When Beever gave very little ground, Butlin’s final reply has become infamous with members of the community. In the first page and a half, Butlin argued that Beever was ‘wrong’ on no less than 25 separate issues, and remarked to the Record’s editor that he did not wish to continue the discussion.

Some also criticised Butlin’s focus on internal determinants of growth. Economist Colin G. F. Simkin was surprised by how little attention exports received within Butlin’s overall narrative of growth, arguing that exports were a major determinant of output for any small open economy such as Australia. Keith Hancock similarly criticised Butlin’s internalist interpretation of the 1890s depression, arguing it was ‘less satisfactory than many of the subsidiary hypotheses which Butlin develops’. Some reacted by publishing their own, contra research. Boehm, following his critique of Butlin’s estimates, published new research arguing that the 1890s depression was caused by a combination of internal structural distortions such as land speculation, as well as British inability to lend to Australia. In 1963, The Australian National University (ANU) economist and economic historian Alan Hall published his PhD thesis as a monograph. He argued that his motivation for publishing the work more than a decade after its completion was because it ‘differed from Noel’s view of the world’. Hall traced the factors that influenced the flow of funds to Australia, concluding that it was the interaction of events in London and Australia that explained the pattern of capital flow in this period.

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29 Merrett; Dingle/Davison; Hutchinson interviews.
32 Hancock, ‘Review: Butlin; Forster’, 573.
33 Boehm, ‘Australian Economic Growth’.
35 Hall, London Capital Market. Although Hall since conceded that it is understandable to emphasise internal factors if you are embedded in the Australian data, he has argued that the bigger picture of Australia is certainly of an open economy. See Hall interview.
Orthodox recruitment

Butlin’s contribution to understanding Australian economic history was remarkable. However, the institutional context enabled not only the production of the work itself, but also its promotion as an intellectual movement. In particular, ‘the words’ and ‘the numbers’ were only possible within the ‘golden era’ of higher education expansion. Many Western nations, including Australia, heavily invested in higher education after World War II. It was seen as the key to postwar nation-building and to ushering in a new era of prosperity and equality.\(^\text{36}\) In Australia, this occurred on two fronts, with different rationales. The first implicitly invoked the Scottish enlightenment ideal of the university, with the expansion of sandstone universities and establishment of new tertiary institutions in the 1960s and 1970s largely with the aim of a mass-educated population trained in the professions (see Chapter 4). The Butlin revolution, on the other hand, was driven by an emphasis on research. World War II demonstrated the usefulness of basic scientific and social science research, as well as the importance of interdisciplinary, publicly engaged knowledge. The government invoked the German model of higher education, with scientific training and research focusing on new frontiers of knowledge, and university professors developing new research programs and guiding graduate students.\(^\text{37}\) Under this rationale, the interwar Council for Scientific and Industrial Research (CSIR) was reconstructed to form the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and was given an expanded role in basic research and integration with new secondary industries.\(^\text{38}\) The federally funded Australian Research Grants Commission was also established to fund the creation of new, academic knowledge. Universities introduced PhD programs, attempting to stem the flow of graduate students


overseas.\(^{39}\) The compact between universities and governments, in both instances, was for knowledge and education to be deployed for the benefit of Australian society.

The Australian National University (ANU) was the centrepiece of the Commonwealth government’s research-led university expansion. Established in 1946, the new national university was a unique blend of a national research agency like the CSIRO, and a university with its own academic priorities.\(^ {40}\) As was ideal under the German model, scholars were appointed to research positions, and supervision of graduate students was the only ‘teaching’ requirement. Compared to the short-staffing and deteriorating teaching loads elsewhere, ANU was an oasis for scholars. Migration to Canberra meant a substantial pay increase, as well as financial support and the time to devote oneself to research. It was an attractive offer: although Canberra was still more or less a big paddock in those days, ANU managed to attract the best and brightest – including Noel Butlin.\(^ {41}\)

The research-led ANU was amalgamated with Canberra University College (CUC) in the late 1950s. CUC was established in 1930 as an outpost of the University of Melbourne, awarding degrees primarily to public servants engaged in part-time study. Between 1958 and 1960, CUC was combined with the research university, with what was now called ANU having two ‘arms’: the Institute of Advanced Studies (the ‘Institute’), and the School of General Studies (the ‘Faculties’). There was a division of responsibility, with those in the research schools of the Institute focusing entirely on research and PhD supervision. The Faculties resembled the sandstone universities, with members teaching undergraduates and with some, but less, onus on research output.\(^ {42}\) There was some tension between the two groups – even in name, a hierarchy was established between the ‘advanced’ work of the Institute and the ‘general’ knowledge of the Faculties. Additionally, the curious dual structure – the ‘maze’ as Faculties economic historian R. V. ‘Bob’ Jackson has called it – led to the only instance in Australia, and probably the world, where

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\(^{40}\) Macintyre, *The Poor Relation*.

\(^{41}\) Foster, ‘Interview with Noel George Butlin’.

two separate departments of economic history coexisted within the same university. As a result, Canberra became home to the largest, most stable group of economic historians in the country.

Economic historians started arriving in Canberra from the late 1940s, and were generally appointed to economics groups. Interwar economic historian Herbert Burton came up from Melbourne in 1948, as Australia’s first professor of economic history at CUC. He stayed on after the amalgamation, but moved on to management roles from the late 1950s before retiring in 1965. After a few years in his brother’s department at the University of Sydney, and a Rockefeller fellowship at Harvard, Noel Butlin was appointed as senior research fellow in the Institute’s Research School of Social Sciences (RSSS) economics department in 1951. Research assistants, including de Meel, Sinclair, John D. Bailey, Garry G. Pursell and Ruth Inall, each assisted Butlin with his efforts throughout the 1950s before further careers in academia or the public service. Alan Barnard and Colin Forster completed PhDs in the RSSS group, and were appointed to permanent positions in the Institute and Faculties, respectively, in the late 1950s.

These junior scholars were crucial for Butlin’s contribution. De Meel was specifically appointed to the RSSS to assist with compiling statistical material, and as a result he and Butlin co-authored some of the very early orthodox estimates. Pursell, Inall, Sinclair and Bailey also worked on the project in the 1950s, with Butlin repeatedly acknowledging their important role for developing the ‘numbers’. Sinclair has argued that he helped with the residential and public construction estimates, joining Butlin on trips to ‘badger’ agricultural companies to allow them access to records. Sinclair’s work during this time was the first explicitly in the orthodox image. He published a series of public capital formation estimates, deliberately mirroring the procedure in Butlin and de Meel’s

44 Australian National University, Report of the Interim Council for the Period 1 January 1950 to 30 June 1951 (Canberra: Commonwealth of Australia, 1952), 11; Butlin and de Meel, Public Capital Formation.
45 In particular: Butlin, ‘The Shape of the Australian Economy’, 10; Butlin, ‘Some Structural Features’, 389; Butlin, Domestic Product, preface; Butlin, Investment, preface.
46 Sinclair interview.
1954 monograph. The two series were directly comparable, and Sinclair argued that, like Butlin, his quantitative and inductive approach aimed to provide ‘grist to the theorists’ mill’. 47

Barnard and Forster trained for their PhDs under Noel’s supervision in the 1950s, and they both complemented Butlin’s initial orthodox work. Butlin’s macroeconomic emphasis on business cycles required understanding capital formation at the industry and firm level, contributing to the collection of extensive business archives, and to Forster and Barnard’s emphasis on the progress of individual firms. Forster examined manufacturing, and Barnard the wool industry, using a combination of statistical material and qualitative case studies. Forster’s initial aim was to build detailed statistics for manufacturing, as Butlin had done for the pastoral and construction sectors, but as the project progressed he found the raw statistics had limited range and accuracy. He incorporated more case studies, as he was worried that quantification alone may be ‘unrepresentative’. 48 Similarly, Barnard used aggregated quantitative material, incorporating case studies of local selling firms after recognising that the statistics were inadequate on their own. 49 Barnard and Forster both acknowledged Butlin’s role in guiding these projects. 50

Butlin’s research in the RSSS was supported by the economics group. Butlin had the indulgence of the head of the RSSS economics department, Trevor Swan, who had worked with him in the Department of Postwar Reconstruction and was similarly influenced by Keynesian economics. Although Swan moved on to more advanced theoretical work throughout his career, he and Butlin co-supervised students, and maintained a professional collegiality. Swan has been credited with enabling Butlin’s ambitious research agenda, allowing him to hire research assistants, recruit PhD students and eventually establish the RSSS economic history department. 51 More broadly in the economics group, Butlin’s research program was strengthened by his leadership of regular seminars that

49 Barnard commented that ‘any effective analysis must await the completion of a great deal more statistical work’. See Alan Barnard, The Australian Wool Market, 1840–1900 (Melbourne: Melbourne University Press, 1958), xvii, and similar mentions on 181, 199.
50 Forster, Industrial Development, ix; Barnard, Australian Wool Market, vi.
51 Hall; Troy; Gregory; Schedvin interviews.


Research papers on wool industry, AU ANUA 377, item 1. See also Butlin’s recollection of Hancock in Foster, ‘Interview with Noel George Butlin’.  

similar to their orthodox contributions at the same time. Discussions focused on methodology, with scholars from different disciplines solving problems and imagining different lines of enquiry for each paper. Butlin has recalled that while he was not terribly excited by the idea of research into wool, the seminar gave him the opportunity to interact with scientists from CSIRO. His chapter on the biology of pastures and noxious scrubs indicates some cross-disciplinary (and cross-institutional) influence.

The orthodox school was thus initially developed through a generous university environment and advocacy from both economists and historians. Just as the ‘numbers’ were published, Swan granted Butlin’s petition for a separate department in economic history, matching the department in the Faculties that had come to life shortly beforehand. This changed the nature of professional interactions, moving the ANU group from the development of the agenda, to the recruitment of others to the orthodox approach.

Departments in postwar Australian universities were hierarchical, with the ‘God Professor’ at the top of the food chain. The God Professor was, at once, the group’s most senior scholar and the administrator, meaning they had power by virtue of seniority, as well as control over hiring, teaching, graduate supervision, and funding. At ANU, Noel Butlin was God Professor of the RSSS group. He had a fairly forceful personality, and had established his scholarly pre-eminence in the field through ‘the words’ and ‘the numbers’. His influence or control over the RSSS department is well-known, with Stephen Nicholas arguing that ‘he ran the place as a little emperor’. In the 1960s and early 1970s, the department had four or five ongoing members of staff and several graduate students who interacted regularly through seminars, supervision and joint projects.

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57 Cain’s chapter in the volume was more or less the same as his earlier article in *Economic Record*, and Barnard presented elements of his wool marketing thesis. See Barnard, *Australian Wool Market*; Neville Cain, ‘Companies and Squatting in the Western Division of New South Wales 1896–1905: “It Is Not a Black Prospect; It Is a Black Past”’, *Economic Record* 37 no. 78 (1961): 183–206, doi.org/10.1111/j.1475-4932.1961.tb01370.x.
58 Minutes from Wool Seminar discussions show participants highlighting potential profitable methodologies. See AU ANUA 377, item 1.
59 Foster, ‘Interview with Noel George Butlin’.
62 Cornish; Gregory; Macintyre; Merrett; Pincus; Schedvin interviews.
63 Nicholas interview.
Graduate supervision was a primary method through which the orthodox approach was refined and promoted. Within the RSSS department, close supervision by Butlin was common, with other members of the department, including Barnard, Neville ‘Nev’ Cain, Bryan Haig and Jonathan Pincus also supervising students. Cooperation with economists in the RSSS was common, with Tom Sheridan supervised by economist Helen Hughes in the Research School of Pacific Studies (RSPacS), and Reverend A. M. C. Waterman supervised by Butlin and Trevor Swan in RSSS economics. Regardless of supervisor, Butlin’s presence was certainly felt. He was acknowledged in all theses produced in the department at this time. Some, such as Susan Bambrick and David Pope, acknowledged his role as God Professor in addition to their main supervisors. Others simply acknowledged his guidance throughout the process. For example, Ian McLean began his DPhil in 1968, and although Cain was his supervisor, he remembered Butlin as the dominant force. As McLean recalled, ‘there was no doubt who exercised intellectual and supervisory clout in the department’.

Sheridan acknowledged the ‘continued interest’ that Butlin and Barnard took in his work.

J. A. Dowie, who had migrated to work with Butlin on a comparable study for the New Zealand economy, argued that ‘without the benefit of his experience the task of compiling the capital formation estimates would probably have been insuperable’.

Graeme Snooks similarly acknowledged the ‘important influence’ that Butlin had on his project on Hume Enterprises in the first half of the twentieth century.

In addition to the supervisory environment, students were also integrated into the normal activities of the RSSS economic history group. PhD students in the 1960s and 1970s regularly presented seminars on their thesis topic, with some, like the 1966 series, almost entirely dedicated to graduate student presentations.

65 McLean interview.
70 AU ANUA 230, item 307. The 1966 series (in order): Keating, Bambrick, Macarthy, Haig, Waterman, Keating, Sheridan, Macarthy, Cornish, Sheridan, Waterman. Haig was the only staff member to present in this year.
each acknowledged their integration with the wider economic history department at ANU,\textsuperscript{71} and most continued their association with the institution throughout their careers. As Waterman acknowledged:

One of the many advantages of preparing a thesis in the Australian National University is the opportunity of frequent discussion both in seminars and in private meetings, with many experienced research workers in one’s own field.\textsuperscript{72}

Most of these junior scholars adopted a similar approach to the orthodox school, specifically addressing criticisms levelled against ‘the words’ and ‘the numbers’. McLean was dissuaded from his original thesis topic to a production function analysis of the Victorian economy.\textsuperscript{73} He adopted the orthodox method, and addressed an important criticism – that by aggregating nationwide, Butlin missed important variations in growth between colonies.\textsuperscript{74} Snooks, similarly, came to ANU to work with Butlin following his contribution on Western Australia’s experience of the Great Depression.\textsuperscript{75} Snooks deliberately set his Masters thesis, and subsequent publications, within what he referred to as the ‘Butlin method’. Bambrick’s thesis analysed the development of Australia’s historical price series, providing a guide for analysing economic growth in real terms, as “deflated by the wholesale price index” is, unfortunately, rarely good enough.\textsuperscript{76} This addressed the criticism of Butlin’s cursory price series.\textsuperscript{77} Michael Keating, after a Bachelor of Commerce at the University of Melbourne, moved to ANU to work on a historical time series of the workforce that he hoped would ‘complement the series of gross product provided by

\textsuperscript{73} McLean interview; McLean, ‘Mechanisation in Victoria’.
\textsuperscript{74} Boehm, ‘Australian Economic Growth’, 230.
\textsuperscript{76} Bambrick, ‘Australian Price Indexes’, preface.
\textsuperscript{77} In particular Boehm, ‘Australian Economic Growth’. For a similar critique of the 1954/1955 monographs, see Goldsmith, ‘Review: Butlin and de Meel; Butlin’. 
Professor N. G. Butlin and the Commonwealth Statistician’. Dowie did not address a specific criticism, but attempted to do for New Zealand what Butlin had done for Australia.

Bob Jackson was a unique case of recruitment. Jackson studied at the University of Sydney in the 1960s. Compared to the hands-on approach at ANU, Jackson was left to his own devices at Sydney, recalling he probably only saw his supervisors twice in the time he completed the thesis. This provided space for other intellectual influences, particularly Butlin’s orthodox work on residential ownership. At the time ‘everyone was studying Noel’s book’, and Jackson took umbrage with Butlin’s assertion that Australian cities were majority owner-occupied in the nineteenth century. Jackson then went through Sydney’s city rate books, and found that there were more renters than previously thought. Jackson’s thesis was sent to Butlin to examine, and although he took some convincing, the thesis was passed and Jackson then went on to have a long career in the ANU Faculties from 1969. Jackson’s work with undergraduates in the 1970s demonstrated the need to synthesise the wealth of orthodox literature, and he wrote *Australian Economic Development*, published in 1977, as a remedy to students’ confusion when confronted with Butlin’s dense volumes. Similar to the work of the other disciples, Jackson’s book, Schedvin has argued, was crucial for promoting and ‘giving shape’ to Noel’s initial contribution.

Once the group was recruited, other key activities facilitated connections among the ‘tribe’. After the establishment of separate departments in the early 1960s, seminars changed from broad gatherings to closed meetings. Economic history seminars occurred regularly throughout the 1960s, with 14 seminars per year in 1964 and 1965, 11 in 1966 and 16 in 1967–68. Participants were either staff members or graduate students of the department. These specialised meetings encouraged collaboration among economic historians and were an important way for scholars to disseminate the findings of the orthodox school. However, this came at

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80 Jackson interview.
82 Schedvin interview.
the cost of connections to other groups, with economic historians no longer engaging with economists, historians or interdisciplinary audiences similar to the ‘Wool Seminar’. There were some exceptions – including Hughes from the RSPacS economics group, and Graeme Davison who was, at the time, a graduate student in history – but otherwise there is very little to indicate involvement from scholars in other disciplines. For example, Hall decided to remain in Swan’s economics department after the ‘split’ in the early 1960s. He has recalled that the economic history and economics groups both scheduled their seminars at the same time, on Friday afternoons. As a result, he rarely interacted with economic historians after the establishment of the separate department.\textsuperscript{84}

Collaboration also reflected and reinforced the orthodox professional community. In the late 1960s, the ANU economic history group produced an edited volume that analysed the development of the Australian economy over the twentieth century. By this time Forster, the editor of the book, was in the Faculties, though he had strong professional connections to the RSSS, to Butlin and to the orthodox school. Contributors were also members of the orthodox ‘tribe’, including Sinclair, Cain, Hughes, Dowie and Butlin himself. The book reinforced the existing professional structures of the ANU economic history group, with contributors presenting draft chapters as part of the RSSS seminar from 1965 onwards.\textsuperscript{85} Butlin, as the group’s God Professor, has been remembered as asserting himself fairly substantially during these discussions, and contributors largely acknowledged each other for assistance and feedback.\textsuperscript{86} Authors adopted the orthodox methodology in their contributions, examining an aspect of the macroeconomy using quantitative, statistical sources. Their approach was inductive, describing trends in the quantitative material rather than testing particular statistical relationships. However, contemporary economic theory, concerning industrial development and the trade cycle, was incorporated in most chapters. Butlin’s emphasis on internal determinants of growth was also largely adopted, with chapters on non-export sectors – Forster on manufacturing, Hughes on iron and steel, and Dowie on services – accounting for half the volume. To compare, rural or

\textsuperscript{84} Hall interview.


\textsuperscript{86} Sinclair interview.
export industries were almost entirely omitted. This volume was the most consistent collective expression of the orthodox school, and represented the peak of ANU ‘recruitment’ of economic historians.

The revolution

Rather than the lone genius, it was a combination of Butlin, the community of like-minded scholars and the ANU environment that produced the orthodox approach in Australian economic history. While this was undoubtedly a major ‘moment’ for the field, it is worth interrogating the degree to which it was a ‘revolution’. As in all intellectual revolutions, Butlin made his contribution by bracing against those who came before. He dismissed the interwar scholars – particularly Shann and Fitzpatrick – for their emphasis on external determinants of growth, as well as their general scholarship. He argued that Shann ‘does little more than summarise Coghlan’, and that although Fitzpatrick defined the basics of Australian economic history in the minds of recent graduates, it was not suitable for ‘more advanced practitioners’. Butlin took Coghlan, particularly his quantitative approach and the ‘grandeur’ of his mind, more seriously, but even so argued that the lack of source information made it easy to disregard the statistician’s contribution.

In defining his research as something ‘new’, Butlin may have overplayed his hand. Australian economic history had a long quantitative–inductive tradition, through the collection of colonial statistics and culminating in Coghlan’s efforts towards the quantitative collection and description of economic matters. Shann and Fitzpatrick both employed substantial quantitative material, and Clark and Crawford continued to refine Coghlan’s national income accounting efforts in the interwar period (see Chapter 2). The quantitative nature of the orthodox school was thus its least surprising feature, with Butlin’s contribution simply the stamina to marshal the necessary source material. Some within Butlin’s circle have identified this, with Sinclair, in summarising the achievements of the orthodox school, arguing that the postwar ‘new generation’ of researchers were more like a ‘repair gang than a team of wreckers, their main contribution being to make important alterations and additions to the

88 Butlin, Investment, xv.
89 Maddock; Schedvin; McLean interviews.
existing structure’. Colleague Rod Maddock has agreed, commenting that Butlin’s legacy was ‘the work he did himself […] that huge slog of just getting out a basic set of numbers […] that huge piece of infrastructure that we all use regularly’.

The orthodox school was also consistent with the dominant paradigm in postwar economics. National income accounting, in particular, was a global phenomenon, encouraged by the dominance of Keynesianism and its focus on sectoral growth and long-term business cycles. Simon Kuznets first formalised this technique through his work in the 1930s at the US National Bureau of Economic Research, a non-university institution focused on statistical and quantitative research. Inspired in particular by Coghlan’s work, Kuznets built estimates of income created by each industry. Collection and use of national income estimates expanded in France, the UK, Spain, Belgium, India and elsewhere in the post–World War II decades. In Australia, the economics discipline was also dominated by Keynesianism in the postwar period, while also demonstrating an enduring interest in deploying quantitative material for the purposes of nation-building. Members of the economics discipline were particularly receptive to the work Butlin had done, with Arndt working with Butlin to develop the national income estimates for

91 Maddock interview.
New South Wales; Swan funding and endorsing the mammoth orthodox effort in the 1950s; and ANU economists such as Helen Hughes and Alan Hall working or collaborating with the economic history group.

Butlin’s work also spoke to intellectual trends in vogue in the history discipline. Globally, the postwar focus on material matters was mirrored by members of the Australian discipline negotiating a ‘national character’ in light of new social movements, through labour, social, women’s and Indigenous histories.97 Thus, rather than dominated by a single paradigm as the economists were, the plurality of the history discipline from the 1950s to the 1970s provided points of discussion between Australian historians and orthodox economic history. Orthodox work was published in key history journals, with adjacent interdisciplinary outlets such as Labour History holding a primary place in Australian historiography in the 1970s (see Chapter 4). Prominent postwar historians Graeme Davison and Stuart Macintyre have similarly noted the synergy between their practice and that of the orthodox school.98 By virtue of its alignment with global and national trends in economic historical work, the orthodox school was so successful partly because it was unsurprising. To speculate the counterfactual, it could easily have been imported through other avenues.

To demonstrate this, there were several Australian orthodox-style contributions that emerged on trajectories unconnected to ANU. For example, Max Hartwell completed his study of the Van Diemen’s Land economy a decade before Butlin published Investment. Hartwell grew up in country New South Wales, before being educated at the Armidale Teachers’ College and New England University College, the latter of which was affiliated with the University of Sydney. His Masters degree, also completed through Sydney, was published in 1954 as The Economic Development of Van Diemen’s Land. Hartwell was influenced by interwar economic historians La Nauze and Hancock, whom he commented

‘taught me much about history, and also the importance of good writing for good history’. Despite this emphasis on the humanities, Hartwell adopted an approach similar to the orthodox school, utilising a vast quantity of previously neglected official quantitative material for the colony, supplementing this with qualitative data such as newspapers and parliamentary debates. His analysis was macroeconomic and built on a production function, incorporating Frederick Jackson Turner’s ‘frontier thesis’ to examine economic expansion and the influx of labour and capital pivoted towards a marketable export surplus (particularly wool). After a DPhil in Oxford in the late 1940s, Hartwell returned to the University of New South Wales as the foundation chair of economic history in the 1950s. In 1956 he left Australia permanently, taking up an ongoing academic post at Nuffield College, Oxford.

Hartwell’s back-and-forth to the UK betrays an important source of orthodox-style writings. In the 1950s, economic history in Britain developed into a more formal theoretical style that took cues from the economics discipline. British economic historians Alec Cairncross, Brinley Thomas, Robin Matthews and others began using a ‘quantitative–historical’ approach, which included theoretical reasoning, economic models and the analysis of extensive quantitative information. As in the interwar period, the global hierarchy of academic knowledge largely demanded overseas education, and many of the young Australian postwar scholars took degrees in Britain before returning to substantive positions at home. Boehm, for example, spent several years working at the University of New England in Armidale in the 1950s, before working with Hartwell and John Wright in Oxford. In the book published from his thesis, Boehm examined Australia’s experience in the 1890s depression. The approach was quantitative, drawing heavily on the primary statistics of Coghlan and Butlin, and on the statistical framework of interwar scholars Clark and Crawford. He was also staunchly inductive, tailoring the statistics to the ‘peculiar features of Australia’ and making claims only from what was

100 Coleman has argued that ‘perhaps the feature that seemed most noticeable about Butlin’s history to non-economists – its quantitative character – was the least distinguishing feature from other contemporary economic historians […] Max Hartwell had already taken care to delineate the quantitative profiles of his subjects’. Coleman, ‘Historiography’, 19.
101 Hudson, ‘Economic History in Britain’; Van Der Wee, ‘Economic History’.
directly observable from the quantitative material. Economic theory was incorporated, though it was used to furnish ‘a logical basis’ for the analysis, and explain the trends found in the empirical data. While Boehm’s approach was consistent with the orthodox school, he attributed this to the British economic history community, rather than to Canberra.

Hall and Hughes experienced a similar trajectory. Although both worked within the ANU economic history group, their main contributions were initially written as theses in the UK. Hughes studied for her DPhil at the London School of Economics, returning to Australia to positions at the universities of New South Wales and Queensland from the late 1950s, before an appointment in the ANU RSPacS economics group from 1963. The book published from her PhD was released the following year, and she demonstrated the statistical and inductive tendencies of the orthodox approach. However, given the timing, and her acknowledgment of London School of Economics supervisor William Ashworth and Sydney colleagues Schedvin and John W. McCarty, it is unlikely her approach came from ANU. Hall also graduated from the London School of Economics, completing his PhD thesis in 1951. This was well before any sort of economic history community had gathered in Canberra. Hall thanked his supervisors, British economic historians R. S. Sayers and T. S. Ashton, as well as acknowledging the assistance of Swan for the theoretical postscript. For Hartwell, Boehm, Hughes and Hall, what might appear on the surface as the orthodox school was actually the outcome of substantial professional connections between Australia and Britain.

Conclusions

In the past, Noel Butlin has been praised as the seemingly sole source of the quantitative, macroeconomic reorientation of Australian economic history in the 1950s and 1960s. He made a substantial contribution

103 Boehm, Prosperity and Depression, 1.
105 Hall, London Capital Market, preface, 192.
to the field’s quantitative infrastructure, and made the ‘loud, emphatic statement’ that Australia’s economic past mattered.\textsuperscript{107} However, responsibility for the emergence of the orthodox approach cannot be wholly placed on Butlin’s shoulders. The ‘big bang’ was the outcome of a confluence of individual effort, institutional support and professional connections. A favourable higher education environment, particularly the generous conditions at ANU, gave Butlin and his colleagues the space and resources to conduct the labour-intensive work of ‘the words’ and ‘the numbers’, and provided him a platform through which he could recruit colleagues and students to this intellectual movement. Its endurance was further assisted by its similarity (rather than distinctiveness) to global intellectual trends, and its ability to speak to the interests of both parent disciplines and to the growing global community of economic historians. Although Butlin was a remarkable scholar, he was also someone in the right place at the right time.

\textsuperscript{107} Merrett interview.