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**SCHEMES OF NATION:
A PLANNING HISTORY OF THE SNOWY MOUNTAINS SCHEME**

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A Thesis submitted in fulfillment
of the requirements for the
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ABSTRACT

This thesis outlines the micro-history of the planning of the Snowy Mountains Irrigation and Hydro Electric Scheme and critically evaluates its procedures and outcomes. It considers five conjunctures of social and technological choice from the late 1930s to the early 1960s. These successive choices are examined at the level of the broad planning processes and outcomes. The layout of the dams, power stations and tunnels provide the occasion and artefact of analysis. By successively and selectively examining the piece-by-piece aggregation and re-focussing of its multi-purpose design, the cross-cultural processes of nation building are assessed as to whether they were democratising, inclusive of differences or corporatising. Counterfactual choices, often marginal to dominant values, are posited in order to highlight the co-joint technological, political and cultural choices being made. Inter-governmental and federalist resource planning processes, vital to the formation of large irrigation systems and the inter-state electricity grid, provide a common thread of analysis. It is argued that the cultural geographic outcome for the Australian Alps was the production of 'fordist rivers.' While there were some differentiated social outcomes, the Scheme overlooked indigenous aspirations and preferred technocratic and corporatist outcomes that lacked ecological sensibility.

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LIST OF ABBREVIATIONS

ALP	Australian Labor Party
AWU	Australian Workers Union
BWIU	Building Workers Industrial Union
CPD	Commonwealth Parliamentary Debates
CSUA	Charles Sturt University Archives (Wagga Wagga)
Elcom	Electricity Commission of New South Wales
IBRD	International Bank for Reconstruction and Development
MDBC	Murray Darling Basin Commission
ML	Mitchell Library
MS	Manuscript
MVDL	Murray Valley Development League
MVWUA	Murrumbidgee Valley Water Users Association
NAA	National Archives of Australia
NBA	Noel Butlin Archives of Business and Labour
NCC	New Citizens Council
NLA	National Library of Australia
NSRB	National Security Resources Board
NSW	New South Wales

PRO	Public Records Office
PWD	Public Works Department (NSW)
RBA	Reserve Bank of Australia
SECV	State Electricity Commission of Victoria
SMH	Sydney Morning Herald
SMHEA	Snowy Mountains Hydro Electric Authority
SR&WSC	State Rivers and Water Supply Commission
SRNSW	State Records New South Wales
SSA	Screen Sound Australia
TVA	Tennessee Valley Authority
US	United States
USBR	United States Bureau of Reclamation
Vic	Victoria
VPRS	Victorian Public Record Series
WC&IC	Water Conservation and Irrigation Commission

NOTE ON UNITS

Note that one hundred thousand acre feet of water equals approximately one hundred and twenty three gigalitres.

Chapter 1: Introduction--The Snowy Mountains Maze

(i) The Significance of the Scheme

The complexities of infrastructure! Technologically, the Snowy Mountains Scheme (figure 1) greatly expanded the irrigation systems within the Murray Darling Basin and brought the south east Australian electricity grid into existence. Concurrently, many rural, regional and metropolitan communities orientated their aspirations toward development and competed for the fruits of technological change via the Scheme. Beyond dichotomies of city versus country, or competition between regions, these communities also participated in common or dominant assumptions about such change. Not least, to populate inland regions to enhance national security meant that this large engineering project was also a massive social experiment.

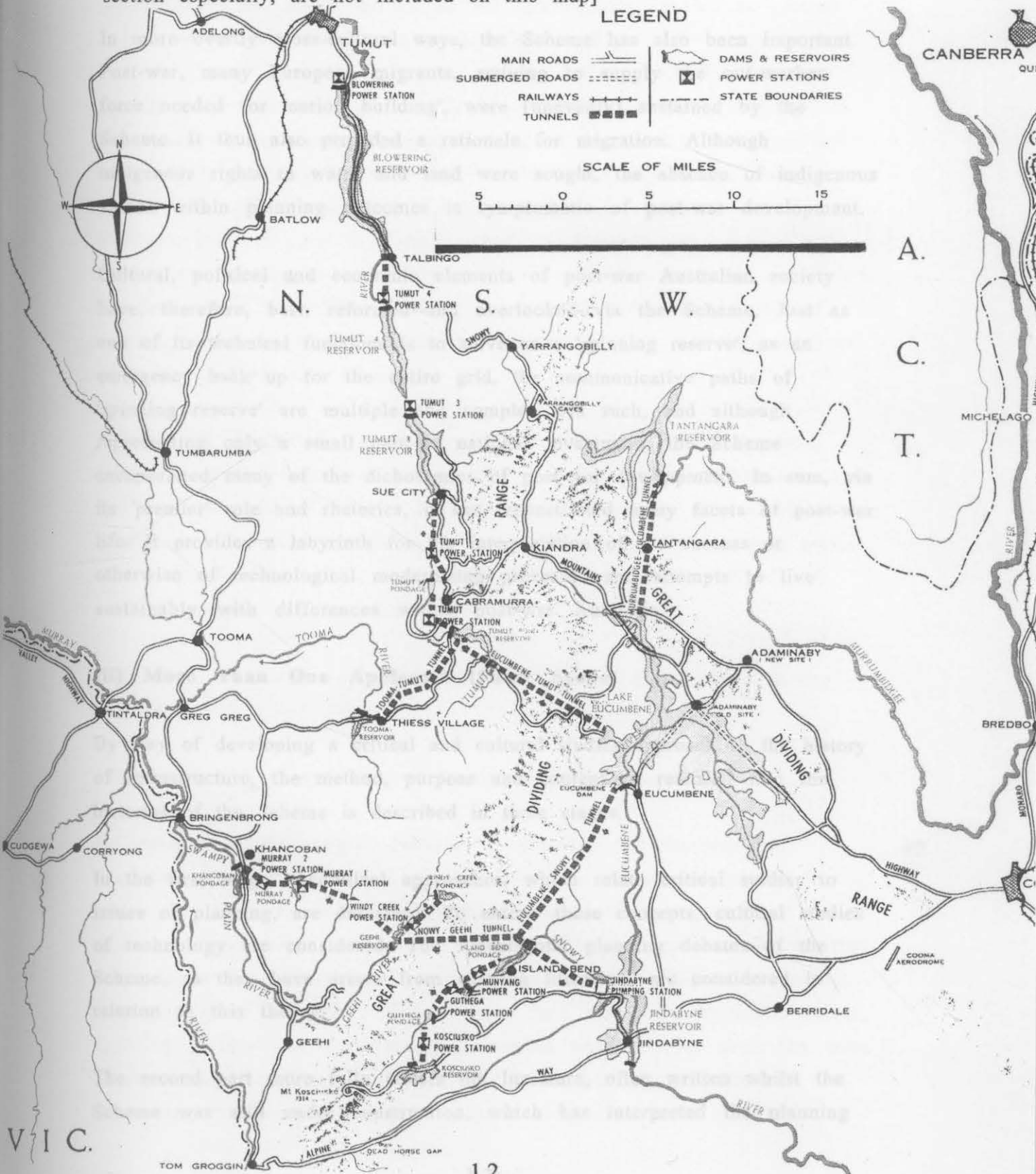
Primarily, the variously imagined futures and the federalist political struggles which mark the history of the Scheme were competitions over energy (manufacturing) versus water (irrigation). The 'central' Scheme provided a post-war arena within which many of the most capital intensive projects of statist development were co-ordinated and hence brokered. It therefore connected to broader, comparative advantage economic choices.

As a site for New South Wales, Victorian, Commonwealth as well as South Australian aspirations for renewal, processes of Commonwealth-State co-operation in building the Scheme had implications for the democratic qualities of post-war federalism. Whilst reconstructing the water cycle of the Australian Alps, some emergent characteristics of the Keynesian state, especially in terms of process, were constructed via this large Scheme.

As the Scheme remade many of the inland (plus some coastal) riverine terrains of south eastern Australia, it was crucial for the cultural geographic transformations of these diverse regions. The associated social imagery of 'revitalised' terrains informed images of national identities. Given the scale of the Scheme, the productivities as well as environmental risks, have also been large.

A broader shift in imperial power, as the emergent United States displaced Sterling, post-war, was contested via the 'Australian province' and, hence,

Figure 1; "Fig 1.4. Map of Snowy Mountains Area showing two main parts of the Scheme: the Snowy-Tumut Development in the north and the Snowy-Murray development in the south" from Diesendorf, W., *The Snowy Mountains Scheme: Phase 1 - The Upper Tumut Projects*, Sydney, Horowitz, 1961, between pages 2 and 3. [Note: later changes to the Upper Snowy section especially, are not included on this map]



via the Scheme. In turn, during a period of Cold War, labour processes as well as the project itself stood to change significantly via the expertise and engineering methods on offer from the United States. The effects upon construction, engineering practice and the burgeoning, post-war, political-bureaucratic technocracies were significant.

In more overtly cross-cultural ways, the Scheme has also been important. Post-war, many European migrants, arriving to supply the out-worker force needed for 'nation building', were (unevenly) sustained by the Scheme. It thus also provided a rationale for migration. Although indigenous rights to water and land were sought, the absence of indigenous values within planning outcomes is symptomatic of post-war development.

Cultural, political and economic elements of post-war Australian society have, therefore, been reformed--and overlooked--via the Scheme. Just as one of its technical functions is to serve as a 'spinning reserve', as an emergency back up for the entire grid, the communicative paths of 'spinning reserve' are multiple and complex. As such, and although representing only a small part of national investment, the Scheme encapsulated many of the dichotomies of post-war development. In sum, via its 'premier' role and rhetorics, it has reconstituted many facets of post-war life. It provides a labyrinth for the interpretation of the success or otherwise of technological modernising processes and attempts to live sustainably with differences within post-war Australia.

(ii) More Than One Applecart (Short Scope)

By way of developing a critical and cultural studies approach to the history of infrastructure, the method, purpose and content of research into the histories of the Scheme is described in three stages.

In the first stage, theoretical approaches, which relate critical studies to issues of planning, are described. To extend these concepts, cultural studies of technology are considered. The fundamental planning debates of the Scheme, as they have arisen from existing literature, are considered in relation to this theory.

The second part more fully covers the literature, often written whilst the Scheme was still under construction, which has interpreted the planning

history of the Snowy Scheme. It relates social and political forces to successive planning choices, offering a periodised literature review. Selected journal, chapter and monograph histories of the Scheme--across a range of disciplines--are considered as debates have evolved. Similarities and differences as well as the inconsistencies between each historical interpretation are noted. Senses of the controversies ignored or glossed over may well be as important as those discussed.

Secondary or contextual material is considered alongside the 'Snowy' references, as the former throw extra light on the latter. This serves to elaborate the process of 'decentring' or of 'socialising' analysis--to establish its differential social connections. Accordingly, contextual literature helps to point to ways in which the Scheme may (or may not) have been fluently and equitably socially constructed, brokered or steered. In short, given the often uncritical approach of earlier studies toward planning outcomes, important changes to plans, as they may be related to planning choices, are identified.

Thirdly and finally, the synthesis of theoretical and existing planning literature on the Scheme is summarised to orientate further research into the multiple social relations of the planning processes. By way of also providing an overview of the argument of the thesis, five research topics that relate five, successive and selective planning shifts to critical and cultural analysis are outlined.

(iii) The Necessity of a Multi-Disciplinary Approach (Theory Review)

Towards A Critical and Cultural Studies of Infrastructure

In seeking pointers towards histories of planning the Scheme, the fundamental approach adopted is to consider the extent and manner in which this large technological system has been responsive to often disparate social values in need of brokering. Analysis seeks to contrast the ways in which technological outcomes have been 'self-serving'--serving technological or corporate elites--or have been responsive to social values, enabling broadly and differentially distributed outcomes. As such, the issue of social justice arises. Beyond its success in fulfilling majoritarian aspirations, its sensitivity towards cultural differences must also be

considered. How and whether cultural geographic, indigenous, migrant and other differences have been included is indicative of whether the Scheme has been inclusive.

The approach elaborated, therefore, is to draw upon critical and cultural studies of science and technology,¹ developing them for large technological systems. For such a large Scheme, one which elaborates or excludes many possibilities, the role of planning expertise and its rhetorics of efficiencies and productivities, as they relate to qualities of democratic process and to cultural differences are, therefore, crucial. The twin focus of research is upon the 'back room boys' as well as upon the social (majoritarian and marginal) values expressed and asserted through the Scheme. Accordingly, the strategies of dominant planning expertise and federalist processes, as they relate or fail to relate to differential interests, becomes the common thread of analysis. This may also highlight, via its unresolved conflicts, both the dominant values of the Scheme and the failures of democratic planning processes during the period considered.

In doing so, planning is regarded as "an enacted, future orientated, narrative in which participants are the actors and joint authors..."²

Planning, although often dominated by expertise, is regarded, potentially at least, as being everywhere. Planning may also be more than a discursive practice, involving various sorts of story telling or enactment. As a practical activity, with normative concerns and symbolic connotations, planning is also (or should be), at once, an empirical, critical and aesthetic practice, or, variously interpretive.³ To counter the fragmentation between various (planning) disciplines and lay publics, a further task of critical theory (and thence planning history) is to:

trace the paths along which science and the humanities, morality and art...can still communicate with each other.⁴

¹. See ch. 5 in Hess, David J., *Science Studies: An Advanced Introduction*, New York, New York University Press, 1997.

². Throgmorton, James A., *Planning as Persuasive Story Telling: The Rhetorical Construction of Chicago's Electrical Future*, Chicago, The University of Chicago Press, 1996, p. 48.

³. Forester, John, *Critical Theory, Public Policy and Planning Practice: Toward a Critical Pragmatism*, Albany, State University of New York Press, 1993.

⁴. Brand, Arie, *The Force of Reason, An Introduction to Habermas' Theory of Communicative Action*, Sydney, Allen and Unwin, 1990, p. 117.

Technological Determinism

It is mainly deterministic attitudes and their associated rationales which sustain a ready acceptance of dominant models of technological change and which shield decision making processes. Technologically deterministic attitudes involve two basic assumptions. Technological change is external to society or 'autonomous' and technology impinges on society, often, some maintain, as the major force of social change.⁵ Technological determinism thus 'naturalises' or neutralises technology as a contestable, value-laden or socially shaped (as well as shaping) outcome.

Either by a failure to cogently relate planning outcomes to questions of technological choice, or, by an emphasis on the 'logic' of technological outcomes, existing histories of the Scheme often demonstrate such determinism. Both Hardman⁶ and Wigmore,⁷ for example, emphasise the role of technical, investigative discovery. For Wigmore, the extra outputs of combining the Murray and Murrumbidgee diversions of the late 1940s dictated an outcome:

study, analysis and discussion, all served to uncover the facts and build the ideas from which a new scheme emerged...So fruitful were the investigations that they gave birth to a further scheme which eventually bridged the gap between the interests of N.S.W. and Victoria.⁸

Albeit a 'discursive' process, Wigmore does not clearly foreground the interpretative, or conjoint, socio-technical nature of this process. The 'uncovering of facts' is privileged as leading the way to other outcomes. The extra power and water potential of the 'higher-ground' options elaborated by the Commonwealth's Investigation Committee of the late 1940s is not conceived as it may have been a political stratagem by which the Commonwealth could enlist wayward interests, perhaps leading to

⁵. Mackenzie, Donald and Wajcman, Judy, "Introductory Essay" in Mackenzie, D. and Wajcman, J., *The Social Shaping of Technology*, Milton Keynes, Open University Press, 1985, p. 4.

⁶. Hardman, D. J., "The Snowy Mountains Hydro-Electric Authority; Origins and Antecedents", *Public Administration (Australian Regional Groups)*, Vol. 27, No. 1, 1968, p. 221.

⁷. Wigmore, Lionel; *Struggle for the Snowy; The Background of the Snowy Mountains Scheme*, Melbourne, Oxford University Press, 1968.

⁸. *Ibid*, p. 134.

'over-built' outcomes. It is characterised as itself enabling an outcome for all concerned.

Although Wigmore seeks to 'calm the troubled waters' by eluding an overt politics of planning, he does not, however, completely down play questions of divergent interests. His story intends to show that the Scheme avoided another States' rights fiasco and argues that these interests were eventually satisfied. The success of these Commonwealth-led efforts (specifically its engineers and bureaucrats) was "a victory for constructive planning and...for eventual co-operation in the common interest".⁹ It is the States who are regarded as harbouring sectional agendas whereas the Commonwealth is identified with the national or common good. He recognises, however, that, under Chifley, the Commonwealth "was naturally allied to Victoria in seeking maximum power generating capacity".¹⁰ A systems-centric and engineers planning approach co-exists unevenly with public interest rhetoric and loses points about the politics of planning.

Wigmore's history, one of the more significant studies, is a semi-official history written with the co-operation of the Authority (via the assistance of a Safety then Archival Officer for the Authority, Gilfillan). It seeks to reinstate the image of the Scheme against the challenge made during the 1960s, sometimes seemingly to offer the views of the Authority and others in response to the controversies. His basic argument is that it was justified that the Commonwealth oversaw the systematisation of much of south east Australia and that technocrats loyal to their calling ably assisted it.

Later accounts provide much greater detail but often accept such assumptions, tending to disconnect the technological changes from the drama of their narratives. Although elaborating upon events, technological change in subsequent works often retains an autonomous character. A critical approach would find it necessary to be more skeptical towards the opinions of experts, their systems-centric rationales. It would also devote attention to the political and cultural forces at work.

⁹. Ibid, p. 152.

¹⁰. Ibid, p. 138.

From Reverse Salients to Social Construction

For critical interpretations, the notion of 'reverse salient', developed by T. P. Hughes in his study of early electrical systems, offers another approach to technological change. Hughes initially proposed the notion of a reverse salient as a site of incremental improvements. A recalcitrant element within the system thus becomes the focus of attention and this explains where and how systems change.¹¹

Closely associated with the Scheme, H. E. Dann (eventually to become the Commissioner of the SMHEA), has written an important article which reviews the design changes made to the Scheme in comparison to the conclusions of the 1949 investigations.¹² Dann holds that the design changes arose largely as a result of the improvements made to large coal-fired power stations, which effectively lowered the value of extra water for hydro power production. This encouraged, for example, a specialised role in power production for daily peak loads.

Dann's description provides many details of planning changes, providing evidence for the view that the Scheme may be considered a 'reverse salient' within the broader electricity grid as it met a need for generating increasing amounts of peak power. It is not, however, simply a question of the Snowy Scheme being designed to enhance the growing State systems. The scale of the Scheme and investment choices made suggest that the peak power role sought by the Authority may have, in effect, 'wagged the dog' by favouring or pre-supposing complementary investment in larger, base load coal-fired plant. Alternatively, more in line with a politics of systems serving expertise (see below), the Scheme may have led the way too quickly into an (overly) large scale and (overly) interconnected electricity grid. In short, for Dann, these questions of choice are not conjoint with technological outcomes as he concentrates upon 'phases' of conception, design, construction and refinement.

¹¹. Hughes, Thomas. P., *Networks of Power, Electrification in Western Society*, Baltimore, Johns Hopkins University Press, 1983, pp. 79-80.

¹². Dann, H. E.; "Two Decades of Engineering--The Snowy Mountains Scheme", *The Journal of the Institution of Engineers, Australia*, Vol. 41, March 1969.

Despite its value, for Hughes, the concept of the 'reverse salient' became a problematic, because merely internally referential, concept. He proceeded to develop notions of 'systems momentum'. Momentum, for Hughes, arises because of the capital committed (and its interests) as well as because of the welter of professional governmental, educational and other organisational commitments:

the people and the investors in technological systems construct a bulwark of organisational structures, ideological commitments, and political power to protect themselves and the systems.¹³

While also emphasising social forces, other approaches in the sociology of technology challenge reductive, technological deterministic accounts. In their place they propose that technological change is thoroughly value-laden and socially informed. Bijker characterises the 'social construction of technology' (SCOT) program as having several key heuristic concepts. The first of these, the main plank against variants of technological determinism, is that of 'interpretive flexibility'. The hermeneutic or interpretive aspect of technologies arises as technologies may be conceived differently by different groups. The interpretive flexibility of a bicycle arises as different groups have different uses for the artefact--masculine bravado and display or transport--such that "they may be understood as several different artefacts".¹⁴

SCOT, therefore, suggests a further concept, that of *relevant social groups*, which variously interpret the artefact. The location or relative position of the vying groups and their effectiveness in mobilising resources become important aspects of analysis. The corollary to this is that the workability of an artefact may be as much a political and symbolic outcome as it is a 'purely technical' outcome; "the working machine was not considered as the cause of its success but as the result of its being accepted in relevant social groups".¹⁵ This in turn leads to the further concept of closure. As an artefact is developed:

¹³. Hughes, Thomas P., *American Genesis*, New York, Penguin, 1989, pp. 460-61.

¹⁴. Bijker, W. E., "Do Not Despair; There is Life After Constructivism", *Science, Technology and Human Values*, Vol. 18 No. 1, Winter 1993, p. 118.

¹⁵. *Ibid*, p. 119.

the focus should be on the *problems* and associated *solutions* that relevant social groups see with respect to the artefact. Such a description would then result in mapping out increasing or decreasing *degrees of stabilisation*.¹⁶

Expertise and Technocratic Consciousness

Along with SCOT's emphases, Hughes (latter) emphasis upon political (or corporate) power also suggests that in assessing socially shaped or steered outcomes, the powerful, 'new class', or corporate cadres of planning, those who plan and controlled large technical systems, are important for any account. For Fischer, via the modern bureaucratic state:

...in the decision processes of these systems, the traditional roles of political parties and politicians have largely given way to administratively based cadres of policy experts...policy decisions are better understood as the outcomes of 'learning processes' among experts within the governmental institutions than as the struggles of external political forces...at least for significant periods of time...¹⁷

For example, a constitutionally frustrated Hudson, as ex-Commissioner of the Snowy Authority, defends the apparently 'pure engineering' emphases of the Scheme:

The success of such schemes of national development is best assured if detailed technical agreement representing all interests at top level is reached prior to final political decisions being made...if some of the earlier proposals by sectional interests for the development of the Snowy River had been adopted this could well have resulted in serious permanent national loss.¹⁸

Via such rationales, instead of treating technological solutions as being in need of variation or limitation to meet differing social, cultural and environmental contexts, Hudson seeks to quarantine systems from contexts. The corollary is that contexts become amenable to being 'colonised' by

¹⁶. Ibid.

¹⁷. Fischer, Frank, *Technocracy and the Politics of Expertise*, Newbury Park, California, Sage, 1990, pp. 18-19.

¹⁸. Hudson in foreword to Wigmore, op. cit., pp. viii-ix.

externally formulated values and solutions. Applied behind a mask of 'objectivity', administration, according to *preconceived* notions of effectiveness, comes to dominate, forming "a subtle, and sometimes not so subtle, form of authoritarianism."¹⁹ Uniform, hence broadly systematised outcomes are preferred, as expertise (and capital) seeks to apply mass production methods universally. Substantive, qualitative differences such as alternative cultural values and democratic outcomes as well as ecological diversities, tend to be over-ridden and locality is remade in favour of the narrowly universalising. In the extreme, technocratic (quantitative, autonomous) rationales dominate as experts defend their corporate autonomy and power. As technocracy ultimately seeks a rule by trusted, 'apolitical' expertise, it mobilises symbolically, politically and, of course, technologically, demanding that society should conform to systems and functional 'imperatives'.

As such, technocratic rationales provide expertise with ready means for legitimating its own control by neutralising the contestable, value laden nature of technologies. Rhetorics of 'progress', 'efficiency' and the 'logical' seek to legitimate technological choices. Measures of technological change may be shorn of their qualitative frames, descriptions of technological change removed from cultural contexts. Supposed apolitical, scientific or objective--scientific--judgements come to obscure values. Accordingly, critical theory suggests that such 'technocratic consciousness' often displaces an awareness of the values of technology.²⁰

Systems Momentum

The technocratic perspective resonates with the general conditions of managing the production process in that it "abstracts the mechanical conditions of production from living labour and cultural contexts."²¹ As this process removes qualitative (politically or culturally laden) issues by replacing them with mathematical or generalised, quantitative issues, it also has a depoliticising affect. For Feenberg, the result of this particular

¹⁹. Fischer, op. cit., p. 43.

²⁰. Held, David, *Introduction to Critical Theory*, London, Hutchinson, 1980, p. 267.

²¹. Feenberg, Andrew, *Critical Theory of Technology*, Oxford, Oxford University Press, 1991, p. 123.

mode of reasoning, complements conservative or institutional influences to maintain 'systems momentum'.²²

Accordingly, for Habermas, in contradistinction to the taken-for-granted understandings, which give daily life (or 'lifeworld') its coherence, "the system refers to those vast tracts of modern society that are 'uncoupled' from communicatively shared experience in ordinary language."²³

Instead, often narrowly abstracted possibilities, denuded of ethics, are coordinated "through the media of money and power [and] ...it is these two media which shape and extend the 'technocratic consciousness'."²⁴

Amory Lovins, for example, has suggested that large technical systems have become predominant, with electrical systems being maintained for the experts themselves.²⁵ Similarly, McCully suggests that large dams have destructively colonised lifeworlds via lost river valleys, salted soils, wasted water and degraded eco-systems due to river regulation.²⁶ Ravenscroft has made some strong criticisms of how the Snowy Authority itself dealt with communities; "over the years it was to grow into a hidebound, rigid, repressive, authoritarian set-up." Further, the Authority is criticised for its "expedience", its "machine" like character and its "inhumane engineers".²⁷

McFarlane elaborated, in effect, these fears of Ravenscroft that the Scheme was being prosecuted in a technocratic (all-for-the-system) manner. Both irrigation as opposed to power and Snowy as opposed to State power were being favoured.²⁸ Primarily, McFarlane suggested that an 'engineers'--

²². Feenberg, Andrew. "The Bias of Technology" in Pippin, R. et al (eds) *Marcuse; Critical Theory and the Promise of Utopia*, London, Macmillan Education, 1988, p. 247.

²³. Pusey, Michael, *Jurgen Habermas*, London, Tavistock, 1987, p. 107.

²⁴. Ibid, emphasis in original.

²⁵. Lovins, Amory., *Soft Energy Paths; Towards a Durable Peace*, Harmondsworth, Penguin, 1977.

²⁶. McCully, Patrick, *Silenced Rivers: The Ecology and Politics of Large Dams*, New Jerzy, Zed Books, 1996.

²⁷. Ravenscroft, Mona, *Men of the Snowy Mountains*, Adelaide, Rigby, 1962, pp. 109, 102, 133 & 234.

²⁸. McFarlane, B. J., *Investment Policy in the Electric Power Sector*, Paper presented at section G at 37th Congress, Australian and New Zealand Association for the Advancement of Science, Canberra, January 1963. Also see Duanne, P., "Symposium; The Agricultural Uses of the Snowy Waters", *Australian Journal of Agricultural Economics*, July 1960, pp. 36-76 and Anon, "Murrumbidgee Irrigation--A Regional Study", *Current Affairs Bulletin*, Vol. 31, No. 13, May 13th, 1963, Anon, "The Snowy--An Appraisal", *Current Affairs Bulletin*, Vol. 31, No. 10, April 1st, 1963, Anon, "Snowy Power and Murrumbidgee Irrigation--Two Replies", *Current Affairs Bulletin*, Vol. 32, No. 7, August 19th, 1963.

even 'Soviet-style'--approach to planning the Scheme arose such that the cost of capital had been down played in favour of Commonwealth-centric, systems building 'imperatives'. A review by Mathews, which is probably the best overview of the economics of the Scheme, largely agrees with McFarlane. The Snowy Authority's methods of economically justifying the Scheme were inadequate or failed to take sufficient account of "the need to evaluate costs and benefits according to the way they are spread over time."²⁹

Elaborating the economic critiques, Davidson linked firmly held beliefs in the benefits of water development to over-investment and instability:

the Australian people would have had a higher standard of living if the area of irrigated land had been smaller...the instability of agricultural production during severe droughts is increased by irrigation.³⁰

Davidson concluded that peak power could have been produced at around 70% of the cost of the Snowy Scheme.³¹ Critical of the expansion of irrigation around Coleambally, Davidson would have preferred the water to be used amongst established farms:

Farmers will obtain large profits from the additional Snowy water, but this has only been achieved by the remainder of the community paying a higher price for electricity than would have been necessary if power had been provided from thermal plants.³²

The Contestable State and System--and Social Learning

Somewhat altering his earlier doubts about scale, engineering expertise and central planning, McFarlane in 1968 considered that "hydra headed" planning outcomes arose as a result of a federalism failing to "work towards common objectives."³³ He shows how a range of departments and

²⁹. Mathews, R., Ch 6 "Power, Fuel and Light" in his *Public Investment in Australia; A Study of Australian Public Authority Investment and Development*, Sydney, Cheshire, 1967, p. 180.

³⁰. Davidson, B. R., "Projects in Southern Australia" in his *Australia Wet or Dry?*, Melbourne, Melbourne University Press, 1969, p. v.

³¹. Ibid, p. 167.

³². Ibid, pp. 181-2.

³³. McFarlane, Bruce, *Economic Policy in Australia: The Case For Reform*, Melbourne, Cheshire, 1968, pp. 68ff.

commissions tangled up in competing agendas and how this resulted in two main affects. Open and orderly planning was curtailed, whilst the Commonwealth sought to transfer debt to the States. Accordingly, for McFarlane:

The idea that Australia is a single nation is often forgotten by the States. How much a State grabs or fails to grab depends on its ability to embarrass the Federal government.³⁴

Held and Krieger suggest, however, that the process of gaining consent from differential groups is, necessarily, a complex affair, often requiring "strategic intelligence" by vying, policy making arms.³⁵ This significantly qualifies any 'functional' technocratic approach. More astute experts will politically and symbolically vary their plans to accord with political and cultural opportunities, to match the political cycle or steering hopes of government. Secondly, as mentioned (above) by Fischer, a process of review internal to the bureaucracy may test and facilitate the social, political and technical feasibility of a project. Thirdly, and contra any ideal of simple co-ordination of state instrumentalities, a state dealing with vying bureaucracies may find it necessary (quoting Hall) to foster some deliberate policy "malintegration" such as to render any single, bureaucratic force ineffective.³⁶

Indeed, the qualitative, if institutionally dominant, social choices involved in planning the Scheme may be sensed from the Scheme's planning debates. This also points to the federalist, political constructedness of the Scheme. McColl is quite explicit; "inter-state politics provided the main reason for the final choice."³⁷

Similarly contestable, the (re-)distribution of benefits via a state managing technological change, although complex, is not necessarily functional for corporate or techno-bureaucratic interests. Even though government processes may be colonised by money and power to enable greater scope

³⁴. Ibid, p. 81.

³⁵. Held, David and Krieger, Joel, "Accumulation, legitimation and the state: the ideas of Clause Offe and Jurgen Habermas" in Held, David, et al (eds), *States and Societies*, Oxford, Martin Robertson & Co., 1983, pp. 490-91.

³⁶. Hall quoted in *ibid*.

³⁷. McColl, G. D., "The Snowy Scheme" (ch. 10) in his *The Economics of Electricity Supply in Australia*, Melbourne, Melbourne University Press, 1976, p. 128.

for the narrowly instrumentalising, gains may be won for workers, women, environmental protection and for different cultural values such as indigenous claims. Access to the planning practices of technological change may be expanded.

In particular, by placing the margins of the Scheme back into relation to its dominant centres, the character of planning as inter-disciplinary, 'social learning', may be assessed. As social learning involves "thematic dialogues and the exchange of stories with others" such that "learners can become the 'transforming agents' of their own social reality", planning as social learning relates to the qualities of democratic processes.³⁸ What may be considered to be an efficient supplier of irrigation water or energy may, from a different perspective, be regarded as an equally 'efficient' threat to biological diversity. The question is often one of *efficient for whom*, within what framework of evaluation? In short, both process and criteria may need to be re-formed and reconciled.

Accordingly, outcomes may be assessed as one may do a 'constructive technology assessment' that considers the gains different social groups achieve as they become part of the complex, challenging process of social learning and of the *continuing* (and often institutionalised) dialogue.³⁹ That is, akin to Habermas' 'ideal speech situation', the (preferably on-going) open processes of discussion and planning may also be assessed, especially as historical 'counterfactuals' and institutional means arose to constantly argue, review, distribute and reformulate outcomes.

More generally, Habermas suggests that social change (or the construction of large technological systems) does not necessarily result in colonisation alone. If properly controlled by active and effective symbolic and political steering effort and by the evolution of communicative, institutional mechanisms, these systems may complexify and diversify society. Similarly, Sclove, as he considers democracy and scale, although seriously concerned by the erosion of local self-reliance and the momentum of large bureaucracies, can allow for large technological systems if "the quality

³⁸. Fischer, op. cit., p. 370.

³⁹. Rip, Arie et al (eds), *Managing Technology in Society: The Approach of Constructive Technology Assessment*, London, Pinter, 1995.

of...interrelations and activities" is high.⁴⁰ That is, to return to Habermas, such effort may justify expanded, if often institutionalised possibilities, for critique and learning, rather than merely systematising society. In short, such progressive 'rationalisation' may arise and "Habermas wants us to study the evolution of society as the rationalization of the lifeworld."⁴¹

This may also serve to qualify criticisms of the scientific character of planning rhetoric. After the 'social waste' of depression and war, 'technocratic consciousness' may have been mixed-in with desires for progressive rationalisation, for social 'order against chaos' and the institutions needed.

Cultural Geographies and Environmental Risks

Given the huge amounts of social, political, institutional and industrial effort, via an extractive, production-consumption economy, that has gone into large technological systems, their combinations of the socio-technical have involved substantial 're-wiring' of nature's cycles, of rivers and water flows, of carbon and other material flows. For Vogel, therefore:

nature...is not independent of the subjective: rather it is something we constitute in our social (and communicatively organised) practices.⁴²

As Williams also suggests, as systems arise the resulting cultural geographic (or eco-cultural) affects are paramount:

These constructions are tangible structures existing in geographic space...In the creation of structures, nature is understood primarily as space, and *the system as a means of organising space*...[and quoting Nordberg-Shultz] 'in the cultural landscape man "builds" the earth'.⁴³

⁴⁰. Sclove, Richard E., *Democracy and Technology*, New York, The Guilford Press, 1995, p. 124.

⁴¹. Pusey, op. cit., p. 60.

⁴². Vogel, Steven, *Against Nature; The Concept of Nature in Critical Theory*, Albany, State University of New York, 1996, p. 167.

⁴³. Williams, Rosalind, "Cultural Origins and Environmental Implications of Large Technological Systems", *Science in Context*, Vol. 6, No. 2, 1993, p. 380 (emphasis added).

The electricity grid, for example, as it steps up the sinusoid voltage, lowers current and thence resistive losses enabling more power to be economically transported down long wires. Accordingly, electrical transformers alter our relation to geographic locale. What were once remote coal fields may now become close. The grid delivers power to wherever we want it and space is 'collapsed' as an affect of the grid. As dam building modifies the cycles of water availability, broad swathes of landscape are transformed. Interacting with broader value systems, disjunctural 'epistemes' of experience arise, systematised into other, cultural geographic terrains.

The modernising production-consumption economies of the post-war period have, however, been undertaking "creeping ecological expropriation" as large systems have sought the 'full utilisation' of resources and as they have displaced or deferred the ecological risks.⁴⁴ Whether engaged in by companies or by states, this has resulted in "everyone pursuing a scorched earth policy against everyone else--with resounding but seldom lasting success".⁴⁵ Industrialised methods of agriculture, for example, as they focus on the intensified use of material resources, may lose sight of, or displace, environmental risks. Over-clearing of land and irrigation salting of soils may arise if a 'full utilisation' idiom gains too great a hold. Frith and Sawyer have reviewed the physiographic, ecological, historical, constitutional and urban and regional planning assumptions by way of seeking to better manage the Murray (and broader) water resource.⁴⁶

In short, cultural habits--as whole ways of understanding and living--reform nature and involve environmental risks. Enlistments into modes of occupation involve various 'eco-cultural' experiments, which often degrade natural resources. The values of large technological systems have cultural geographic results that may involve particular oversights. For Vogel, therefore, his communicative theory of nature results in the question "what...should the communicatively and practically constituted world we inhabit be like?"⁴⁷ In place of simple dichotomies between nature

⁴⁴. Beck, Ulrich, *Risk Society: Towards a New Modernity*, London, Polity, 1992, p. 38.

⁴⁵. Ibid.

⁴⁶. Frith, H. J. and Sawyer, G., *The Murray Waters: Man, Nature and A River System*, Melbourne, Angus and Robertson, 1974.

⁴⁷. Vogel, op. cit., p. 168.

and culture, competing versions of 'narrated natures' with various institutional capacities for learning about differing perceptions of risk, arise. Historically, therefore, it may be asked what risks were perceived and the extent to which institutional reflection arose.

The Symbolic Representation of Systems

The socio-technical and cultural geographic character of large systems suggests that technology is, thirdly, symbolically laden and contested. Such encodings contest and legitimate the possibilities of technology, to have it challenge or conform to dominant social relations. Latterly, a "technical code" (Feenberg, 1991 p. 78ff), as it seeks to correlate knowledge to power, often mobilises symbolically. Technocratic consciousness, symbolised, forms this bridge. Further, Debord suggests that image making is often for the powerful as they seek to organise a whole array of social and technical practices. Jappe, quoting Debord, suggests pessimistically that this instrumental use of the image, or "the spectacle", thus seeks:

"incessant technological renewal" and the "integration of State and economy". And in its most recent phase it has three main consequences: "generalised secrecy; unanswerable lies; an eternal present"⁴⁸

Nevertheless, as art or critically orientated symbolic practice gives expression to the taken-for-granted, they open up the taken-for-granted by their revelations. Accordingly, art may allow for a critical interpretation of technology and its assumptions. Similarly, art may enable the understanding of other understandings, of other cosmologies or cultures. On the other hand, given the significance of 'technical codes' or 'technocratic consciousness' in curtailing choices, image-making also becomes a primary device by which technologies and planning options are limited and limiting. Similarly, technological change is often projected as being inevitable or as being eternally new.⁴⁹

⁴⁸. Jappe, Anselm, (translated by T. J. Clark), *Guy Debord*, Berkeley, University of California Press, 1999, p. 7.

⁴⁹. Smith, Terry, *Making the Modern*, Chicago, University of Chicago Press, 1994, p. 135.

Specifically, Sekula provides a rich analysis of representations of mining technology and the reification of social relations of capitalism.⁵⁰ Nye considers the consumerist individualism favoured by and favouring the growth of large electrical systems.⁵¹ In a manner which is sensitive to the uses of the awe-inspiring aspects of massively remade cultural geographies (via dams, open cuts, bridges, transmission and transport grids etc), as well as to the productive or legitimating aspects of representations, Nye also examines the (spectacle of the) technological sublime as:

emotional configurations that both emerge from and help to validate new social and technological conditions.⁵²

The modernising icon par excellence for large irrigation and hydro electric systems has been the Tennessee Valley Authority. It and the New Deal of US President Roosevelt offered a model for nations world-wide of how statist development could contribute to nation building--such as the Snowy Scheme. Relatedly, Davidson's economic critique of irrigation begins by stressing the cultural beliefs that inform these massive changes:

No belief is more firmly held in Australia than the scarcity of water has hindered the nation's development...settlement would have occurred more rapidly and the population would be much larger...no sacrifice is considered too great...in order to increase its supply.⁵³

Pownall, in her *The Thirsty Land*, positions the Scheme firmly in terms of how it serves this 'imperative' (also see her bibliography for related, 'water myth' works).⁵⁴

⁵⁰. Sekula, A.; "Photography Between Labour and Capital" in Buchloh, H. D. and Wilkie, R. (eds), *Mining Photographs and Other Pictures 1948-1968*, Halifax, Nova Scotia, The Press of the Nova Scotia College of Art and Design, 1983.

⁵¹. Nye, David E., *Electrifying America: Social Meanings of a New Technology 1880-1940*, Cambridge, Mass., MIT Press, 1990.

⁵². Nye, David. E., *American Technological Sublime*, Cambridge, Mass., MIT Press, 1994, p. xvii.

⁵³. Davidson, B. R., *Australia Wet or Dry?*, Melbourne, Melbourne University Press, 1969, p. 1

⁵⁴. Pownall, Eve, *The Thirsty Land: Harnessing Australia's Water Resources*, London, Methuen, 1967.

Such iconic models and the consequent relations of power between metropolitan and provincial (or settler) societies also allow, however, an active appropriation. Although Australian settler society has experienced little colonial violence, a corollary to the heterogeneity of imperial-provincial power, is that there is (if weakly) an "ambivalently positioned" 'colonial' subject.⁵⁵

More substantive colonial relations in Australia have arisen between first and subsequent (settler) nations.⁵⁶ As a consequence, it is necessary to go beyond 'constructionist' approaches as they may neglect minority rights or ignore those groups without effective voices or which are systematically excluded from the agenda.⁵⁷ Similarly, Cohen, in the case of the Cree and Inuit peoples of Northern Quebec, facing hydro electric schemes at James Bay and elsewhere, suggests that the "failed promises...of the discourses of rights and the public use of reason" be exposed and the "structuring absence at the heart" of nation building in Quebec has been "that of the native communities."⁵⁸

A cultural critique of technological systems that goes beyond problems of distribution to also consider the "grammar of forms of life" is also required.⁵⁹ Relatedly, and as we have seen, to further problematise the matter, propositions of science or technology imply (for Wynne) certain social or cultural values:

science is articulating and imposing not only propositional claims but tacit formulaic and hermeneutic ones too--in other words, symbolic ones about the performance and legitimacy of social institutions, and

⁵⁵. Parry, Benita, "Problems in Current Theories of Colonial Discourse", *Oxford Literature Review*, Vol. 9, Nos 1-2, 1987, p. 29.

⁵⁶. Gandhi, Leela, *Postcolonial Theory: A Critical Introduction*, Sydney, Allen and Unwin, 1998, p. 168-9.

⁵⁷. Winner, Langdon, "Upon Opening the Black Box and Finding It Empty: Social Constructivism and the Philosophy of Technology", *Science, Technology and Human Values*, Vol. 18, No. 3, Summer 1993.

⁵⁸. Cohen, Barri, "Technological Colonialism and the Politics of Water", *Cultural Studies*, Vol. 8, No. 1, January 1994, pp. 32 & 36.

⁵⁹. Pusey, op. cit., p. 109.

about the 'naturalness' of particular models of human nature and relationships.⁶⁰

Importantly, therefore, a regime of science or technology may thus overlook or fail to recognise cultures which:

are highly dynamic systems of knowledge involving continuous negotiation between 'mental' and 'manual' labour, and continuous interpretation of production experiences [which] induces a highly complex and detailed knowledge system and a flexible adaptive culture which does not lend itself to standardisation or planning.⁶¹

Accordingly, however diffused with other possibilities, indigenous traditions may be overlooked or dismissed by the 'universalising' and standardising Western science tradition, because of its imperial desire to re-organise the world and "to optimise the production of this standard universal ideal type."⁶² Within Western traditions themselves, stark dichotomies between expert versus lay knowledge also underwrites, for Wynne, "a more basic lack of recognition of the cultural/hermeneutic character of scientific knowledge." This also:

seriously constrains the imagination of new forms of order and of how their social legitimation may be better founded.⁶³

Cultural perspectives should, therefore, be more able to capture the "fundamental indeterminacies in knowledge" and an analysis of the role of lay publics or the 'grass roots' may enable such a broader conception. In place of lay publics being mainly subject to or 'duped' by expertise, Wynne suggests that a more dependent or mutual and ambivalent relation often exists between lay publics and expertise.

Relatedly, there exist a multitude of sites for analysis such that non-traditional design constituencies could be considered as they decentre conventional accounts and highlight the choices actually being made. The

⁶⁰. Wynne, Brian, "May the Sheep Safely Graze? A Reflexive View of the Expert-Lay Knowledge Divide", in Lash, Scott et al (eds) *Risk, Environment and Modernity: Towards a New Ecology*, London, Sage, 1996, p. 76.

⁶¹. Ibid, p. 71.

⁶². Ibid.

⁶³. Ibid, p. 45.

use of migrant labour, for example, requires an awareness of the problems of differences in the workforce, especially of language as it relates to safety and training. The social engineering of the 'populate or perish' Snowy Scheme calls for critical analysis of the resultant 'multi-cultural workforce'. Wajcman suggests that technological skill is often a source of identity formation for men as they dominate the technoscientific professions and gain affirming identity queues from the cultures of engineering and technoscience, which concomitantly denies women.⁶⁴ Access for women to the technical or scientific trades and professions has often been barred and production remains primary, suggesting that a male culture is also being maintained. Penley and Ross consider politically engaged 'technocultural' combinations of the social and technological.⁶⁵ Counter-practices may also include technocultural challenges, such as symbolic or political practices, as well as (alternatively contextualised) technoscientific practices. Similarly, identities-in-process, whether of nation-state, groups or individuals, can provide different modes of nation-forming.

Again, therefore, the methodology remains multi-disciplinary:

In the final analysis we are not confronted with exclusive choices: *either* empirical theory *or* interpretative theory *or* critical theory...An adequate social and political theory must be *empirical, interpretative and critical*.⁶⁶

Without privileging technological, political, symbolic or environmental practices, the conjoint aspects of large 'nation building' systems may be interpreted via "conjunctures of adventitious occurrence."⁶⁷ Presuming inter-disciplinary social relations of planning weaving together, the relation between these is more open to critique. In particular, the following critical and cultural studies approach to planning, combines interdisciplinary themes of culture and power such that the politics of expertise is considered along-side often compounding issues of cross-

⁶⁴. Wajcman, Judy, *Feminism Confronts Technology*, Sydney, Allen and Unwin, 1991.

⁶⁵. Penley, C. and Ross, A. (eds), *Technoculture: Cultural Politics*, Minneapolis, University of Minnesota Press, 1991.

⁶⁶. Bernstein, Richard J., *The Restructuring of Social and Political Theory*, Oxford, Methuen, 1976, p. 235.

⁶⁷. Smith, Terry; "Making the Modern" [seminar tape], Sydney, University of Sydney, Power Institute, 1993.

cultural relations, environment, gender and class. In turn, these themes are actively related to issues of democracy, its institutions and social justice.⁶⁸ In sum, by variously joining an identity politics (or cultural studies) of large systems with a politics of expertise and of the representative state (via critical studies), the procedures, aims and outcomes of planning can be better critiqued. How and whether experts and publics sought and achieved democratic, differentiated and, for their times, environmentally sensitive outcomes may be assessed.

(iv) Infrastructure's Cultures (Periodised Literature Review)

By way of seeking to locate, thematise and to critically interpret planning conjunctures according to the ways in which the planning of the Snowy Scheme has related to a range of cultural differences, the existing and contextual literature is now reviewed in greater depth.

The choice between Murrumbidgee, Murray or Snowy options

Two early articles in the *Current Affairs Bulletin* of 1948 and 1952, written to encourage discussion about the choices being made in the planning and construction of the Snowy Scheme, provide useful historical detail. The first reviewed the two most favoured options being considered during the early 1940s under the Chifley government, options of diverting the Snowy River either to the Murrumbidgee or Murray rivers. It acknowledges that local, inter-state and electric power versus irrigation differences were involved in these choices. The article then suggests that Victoria has few legal rights over the Snowy but that a strong economic case exists for the Murray, power diversion option. This first article thus highlights a power versus agricultural or comparative advantage theme. In fact, by also framing its comments within the Rural Reconstruction Commission's belief that water is a most important commodity for Australia, it concludes by reiterating the "great importance of the agricultural argument."⁶⁹

For this initial planning period (1938-45), relevant contextual history is provided by Hallam, as he recounts the crucial rise of the McKell Labor

⁶⁸. Hess, op. cit., pp. 113ff.

⁶⁹. Anon, "Snowy; Whose River?", *Current Affairs Bulletin*, Vol. 2, No. 13, September 13th, 1948, p. 11.

government of New South Wales from 1941.⁷⁰ This government actively supported--and came to power on--the irrigation proposal to divert the Snowy to the Murrumbidgee. As such, and also given a third planning option of leaving the water in the Snowy River for a run-of-the-river hydro electric project, a major, initial set of planning choices, related to 'irrigation versus power' choices, regional aspirations and inter-State rivalries, arises.

Given that the emerging, cross-border planning responsibilities were largely state-based, legal-constitutional histories dealing with the rights of the Commonwealth over especially river resources, become relevant. Irving, for example, characterises the effect of section 100 of the Constitution, which prevents the Commonwealth from abridging the right of a State to "reasonable use of the waters", as leaving the control over the rivers in a "constitutional muddle."⁷¹ Sandford Clark offers an historical account of water law noting the importance of State-controlled rights rather than riparian or river bank access rights in Australia.⁷²

Along with State (and metropolitan) rivalries, it was a time when regions were being legally defined and those around the Australian Alps began to manoeuvre. In a set of seminar articles, edited by Scott, aspects of regional development linked to Snowy Scheme outcomes are considered.⁷³ In particular, Wettenhall considers the Snowy Authority as a local example of a public corporation along the lines of the Tennessee Valley Authority (TVA) which was formative for regional development in the United States. He suggests that the federally controlled TVA example was used by the Commonwealth mainly to "fend off" the States to prevent any local or regional initiatives continuing once the Authority was established.⁷⁴

⁷⁰. Hallam, Jack, *The Untold Story: Labor in Rural New South Wales*, Sydney, Allen and Unwin, 1983.

⁷¹. Irving, Helen, *To Constitute a Nation; A Cultural History of Australia's Constitution*, Cambridge, Cambridge University Press, 1997, p. 98.

⁷². Clark, Sandford D., "The Philosophy of Australian Water Legislation" [Parts 1 to 3], *Water*, Vol. 7, no's 3 and 4, September and December, 1980 and no. 1, March 1981.

⁷³. Scott, Roger (ed.); *Development Administration and Regional Projects*, Canberra, Canberra College of Advanced Education, 1975. Chapters 8-13 include; Enright, K.; "An Evaluation", Wettenhall, R.; "The Idea of a Public Corporation", Gilfillan, W.; "Historical Background", Flynn, W.; "Constitutional and Legal Problems", Collins, P.; "Problems of Management", Little, N.; "Problems of De-escalation".

⁷⁴. Wettenhall in *ibid*, p. 88.

Harnett has written a detailed account of the history of regionalism including as it relates to 'TVA-ism' in Australia.⁷⁵ Powell's history of 'bioregionalism' or TVA-like multipurpose development within the Basin is also relevant, especially as it considers the 'quantitative' or instrumental tendencies of this recontextualised engineering approach.⁷⁶ The common assumptions joining city-country cultural geographies, as well as between 'garden-cities' and 'riverine-country', is apparent via Freestone as he reviews the garden cities and towns of Australia.⁷⁷ Crease considers how the TVA is a 'template' for and of a changing North American society.⁷⁸

Similarly, for this first planning choice, Snowy Scheme planning decisions were related population outcomes. This involved a large measure of consensus around a White Australia policy. Post-war reconstruction and regionally linked development was a way of shoring up whilst also refiguring a White, Anglo-Celtic cultural outpost, to populate Australia with British or European migrants or face 'race suicide'.⁷⁹ In short, this first planning period and choice relates cultural--especially nationalist--nation building aspirations to Snowy Scheme linked regional aspirations. These, in turn, relate to federalist politics.

The Choice Between Separate or Combined Options

The second *Current Affairs Bulletin* article accepts the political reality of the 1949 'compromise' design, a combined Tumut (thence to the Murrumbidgee) and Murray diversion of the Snowy.⁸⁰ Given the surprising and/or late decision to combine two of the options, this suggests intra-state and/or bureaucratic strategies were in play. Conjunctural with what may be characterised as the second major planning choice of the combined option, legal and political-bureaucratic contexts become important.

⁷⁵. Harnett, Con, *Curtin and McKell; Architects of Regionalism in Australia*, Newcastle, Hunter Valley Research Foundation, 1984.

⁷⁶. Powell, J. M., *The Emergence of Bioregionalism in the Murray Darling Basin*, Canberra, The Murray Darling Basin Commission, 1993, pp. 70-71.

⁷⁷. Freestone, R., *Model Communities; The Garden City Movement in Australia*, Melbourne, Nelson, 1989.

⁷⁸. Crease, Walter L., *TVA's Public Planning: The Vision, the Reality*, Knoxville, The University of Tennessee Press, 1990.

⁷⁹. Jupp, James, *Immigration*, Melbourne, Oxford University Press, 1998 (2nd ed.).

⁸⁰. Anon, "The Future of the Snowy", *Current Affairs Bulletin*, Vol. 10, No. 11, September 9th, 1952, p. 163.

The extra energy-producing capacities of the combined option allowed the Commonwealth to claim that such 'defence-related needs' implied federal control, as did the TVA in the United States. Accompanying the Commonwealth powers under the Seat of Government Acceptance Act (1909), which transferred rights to generate power from the Snowy River to the Commonwealth for the Australian Capital Territory, this defence rationale formed a basis by which to claim a constitutional right--given an antagonistic High Court--to plan and construct the Scheme. Wigmore provides a good coverage of this rationale.⁸¹

That the process and outcome of the Commonwealth's investigation work was, indeed, political or value-laden is illustrated by Lewis. Ronald Lewis was Director of Engineering within the Commonwealth Department of Works and Housing and took the position of executive officer of the Snowy investigation committees, co-ordinating the work of sub-committees (1946-9) whilst chairing the hydro-electric sub-committee. Lewis' insights arise as a result of one of his justifications for his and (his fellow engineer's) Rowntree's authorship, which was not to deny but to 'admit' that viable proposals had also to be "politically acceptable."⁸²

Further, the combined proposal was only revealed to the investigating committees in any significant detail at a late date.⁸³ Contra technologically determinist accounts, a case for a value laden combined diversion, planned according to both political interests, procedural method and rival statutory authority/departmental interests arises. Further, the possibility that the Scheme was beginning to be over-engineered arises as a result of this emerging liaison between expertise and the Commonwealth government and/or via this technocratic-political process of securing 'agreement'.

Contextually, for such an obscured choice, Alexander recalls post-war reconstruction as a time when the inter war prevalence of State based, semi-autonomous, resource bureaucracies were challenged by a resurgent Commonwealth, especially via the "bureaucratic intelligentsia" of post-war

⁸¹. Wigmore, *op. cit.*, pp. 89, 129-30, 141-3, 148, 173.

⁸². Lewis, R. B.; *Development of the Snowy River Scheme; The Evolution and Triggering Off of the Scheme With Background to the Technical Reports of the 1946-1950 Investigation by the Commonwealth and States Snowy River Committee*, Canberra, Dept. of Construction, Commonwealth of Australia, 1971, pp. 3 & 7.

⁸³. *Ibid*, appendix 1, p. 2.

reconstruction.⁸⁴ Love recounts the popularity of 'money power' economic theories of the 1930s and 1940s, seeking to reform post-Depression capitalism.⁸⁵ Similarly, Wiltshire sees planning emerging from the 1930s as a polarised concept but it gained credibility after the experiences of war.⁸⁶ Rowse emphasises the importance of the emergent managerial classes and their associated legitimating ideologies of a "humane technocracy" seeking consensus around full employment for security.⁸⁷

To Enlarge Adaminaby to Eucumbene Dam? (Choices between Rival State and Commonwealth Systems I)

To return to the article of 1952, as it accepted the combined choice, the controversy is about the speed or extent of construction of the Scheme and about "choices involved in national investment", given the then current credit squeeze affecting all infrastructure projects.⁸⁸ Relieving such pressures, however, McFarlane and Catley suggest that the benefits of loans from the International Bank for Reconstruction and Development during the 1950s were "considerable", allowing a "more rapid rate of economic growth and a higher rate of immigration."⁸⁹

By the mid 1950s, Hudson, appointed from a position of chief engineer at the Sydney Water Board to be 'Commissioner sole' for the Snowy Mountains Hydro Electric Authority (SMHEA), provides a particular rationale for the operation of the Snowy Scheme. In the context of the neighbouring electricity grids, the older and smaller metropolitan coal fired stations (being less efficient and hence used intermittently for peak loads) will become uneconomic. Thence, as the load continues to grow, Hudson anticipates that the Snowy will become the major way in which this

⁸⁴. Alexander, Malcolm, "State/Provincial Governments and Federal Power: The Politics of National Development" in Hodgins, Bruce W. et al, *Federalism in Australia and Canada: Historical Perspectives 1920-88*, Peterborough, The Frost Centre, 1989, p. 89.

⁸⁵. Love, Peter, *Labour and the Money Power: Australian Labour Popularism 1890-1950*, Melbourne, Melbourne University Press, 1984.

⁸⁶. Wiltshire, Kenneth, *Planning and Federalism: Australian and Canadian Experience*, St Lucia, University of Queensland Press, 1986, ch. 2.

⁸⁷. Rowse, Tim, *Australian Liberalism and National Character*, Melbourne, Kibble Books, 1978, p. 222. Also see Encel, Sol, *Equality and Authority: a Study of Class, Status and Power in Australia*, Melbourne, Cheshire, 1970.

⁸⁸. Anon, "The Future of the Snowy", op. cit., p. 163.

⁸⁹. McFarlane, Bruce and Catley, Robert (eds), *Australian Capitalism in Boom and Depression*, Chippendale, Alternative Publishing Co-operative, 1981, pp. 84-5.

demand for peak power will be met.⁹⁰ Connolly, of the State Electricity Commission of Victoria (SECV), foresees difficulties, however, in co-ordinating irrigation and power outputs and suggests that New South Wales and the Commonwealth should be paying more of the costs.⁹¹

Accordingly, this period of initial construction and co-ordination with competing State-systems, also forms a third, significant 'moment' of choice. In particular, interesting material is provided by McHugh on the re-location of the Adaminaby dam such that:

the new version of the Scheme hinged around a central storage at Eucumbene that would not only be much bigger than planned, but would also link the northern and southern sections of the Scheme.⁹²

Detail of the bureaucratic moves and counter moves is, however, again absent from accounts. On the matter of the Commonwealth-States or inter-governmental 'Agreement' negotiations, about to begin once Menzies took power, Wigmore sheds little light on why there was a delay for over three years until a committee was convened.⁹³ The federalist, resource politics, negotiated by the institutional innovation of the Snowy Mountains Advisory Council, from 1950 to 1958, when the Agreement was completed, receive only cursory attention. Similarly, the protracted negotiations over the costs of power from the Scheme, especially if it were to exceed the cost of power which the States could generate themselves, is only briefly considered and not as it relates to planning outcomes.⁹⁴

The 'brown coal first' approach of the State Electricity Commission of Victoria,⁹⁵ especially as it had plans to use briquettes as a peak power

⁹⁰. Hudson, W., "The Snowy Mountains Scheme" in *Australia, Official Yearbook of the Commonwealth of Australia*, Canberra, Govt. Printer, No. 42, 1956, pp. 1122.

⁹¹. Hudson, W., "Hydro-Electric Power in Australia" in Wills, N. R. (ed.), *Australia's Power Resources*, Melbourne, Cheshire, 1955, pp. 79-80.

⁹². McHugh, Siobhan, *The Snowy; The People Behind the Power*, Melbourne, Heinemann, 1988, p. 88.

⁹³. Wigmore, op. cit., p. 171.

⁹⁴. Ibid, pp. 172-3.

⁹⁵. Mathews, R., "The Snowy Mountains Scheme as an Illustration of the Equipment Problem", in his *Public Investment in Australia: A Study of Australian Public Policy Investment and Development*, Melbourne, Cheshire, 1967, pp. 159ff, Holmes, Jean, *The State Electricity Commission of Victoria: A Case Study in Autonomy*. Masters of Arts thesis, University of Melbourne, 1969 and McFarlane, B. J., *Investment Policy in the Electric Power Sector*, Paper presented at section G at 37th Congress, Australian and New Zealand Association for the Advancement of Science, Canberra, January 1963.

supply, is also absent. The outcomes are, instead, a "victory for planning"⁹⁶ (perhaps in answer to McFarlane et al) or result in "improvements to the basic scheme".⁹⁷ Wigmore spends most space outlining the resulting Agreement rather than examining the Council's dynamics.⁹⁸ Collis, regards the agreement 'negotiations' as being a delaying tactic until work was so advanced, that New South Wales especially, could not reasonably refuse to continue.⁹⁹

As also mentioned by McHugh,¹⁰⁰ and coincident with this delaying strategy as well as to the 'third' planning choice, is the theme of burgeoning myth-making. Often attracting nationalistic rhetoric, begun and continued in the light of 'public' controversy, image-making, from the first moments, became a major aspect of the Authority's and the Scheme's existence.¹⁰¹

Gilfillan's card bibliography in the National Archives of Australia (Canberra) lists nearly four hundred magazine articles, mainly from the 1950s and 1960s which eulogise the Scheme and record local historical and technical matters.¹⁰² Geoff Ramsey has produced an extensive bibliography on the films produced by the Authority, listing over 100 items.¹⁰³ Extensive files of photographs exist in the Authority's offices at Cooma and at the Australian Archives, Canberra. Esau reviews the photographic output of the Authority noting its main themes of the conquering of nature, its large scale and combinations of "machine and labour [and] progress through technology".¹⁰⁴ Fashioning images and

⁹⁶. Wigmore, op. cit., p. 151.

⁹⁷. Ibid, p. 167.

⁹⁸. Ibid, pp. 176-9.

⁹⁹. Collis, Brad, *Snowy; The Making of Modern Australia*, Sydney, Hodder and Stoughton, 1990, p. 138-9.

¹⁰⁰. McHugh, op. cit., p. 118.

¹⁰¹. Unger, Margaret; *Voices From the Snowy; The Personal Experiences of the Men and Women Who Worked on one of the Worlds Greatest Engineering Feats; The Snowy Mountains Scheme*, Sydney, University of New South Wales Press, 1989, pp. 150ff

¹⁰². NAA: A2619, Box A-P and Box Q-Z, *Subject and Name Index cards for historical documents relating to the Snowy Mountains Scheme*.

¹⁰³. Ramsey, Geoff/SMHEA; *Report on Films and Videos in Snowy Archives*, Cooma, SMHEA, 1993.

¹⁰⁴. Esau, Erika, "Photography and the Snowy Mountains Hydro-Electric Scheme", *History of Photography*, Vol. 22, No. 1, Spring 1998, p. 74. Also see SMHEA, "Photographic Exhibition in Melbourne" (1957) [typed note], NAA: A2618, Documents 2325 to 2330 and 2332 to 2343, Folder 64, *Minutes and Notes...Photographic Exhibition....*, Ziegler, Oswald, *Snowy Saga*, Sydney, Oswald Ziegler Publications, 1960

conducting tours of the sights and sounds of revitalised national industry was becoming a major corporate device.

The politics of the Cold War and the Split, were also brewing. Murray and Hagan provide detail of the politics whilst d'Alpuget provides details about the federal industrial court.¹⁰⁵ *The Menzies Era*, edited by Prasser et al., provides further contextual political-economic detail as does Lee in his *Search for Security*, the latter being especially useful on the relation between foreign and economic policy given that large loans arrived at the same time as US contractors.¹⁰⁶ McFarlane and Catley point out that the Arbitration system was used during the 1950s to maintain a shift in distribution of national product from labour to capital of about 10 per cent.¹⁰⁷ Lowe details how the early years of the Menzies government (1950-1954) sought to construct a "national security state" for an anticipated world war. As well as inflation, this produced "excitement and anxiety" around issues of technological development whilst polarising politics into Cold War oppositions and away from regional (and local) issues of decolonisation.¹⁰⁸

In sum, whilst experts negotiated a relocated and much larger dam, nation building for national security pressures grew, whilst Cold War tactics were being set against labour. A struggling Advisory Council, a growing emphasis upon corporate public relations amidst fears of 'foreign communists', all vied at a time of a directive conservative government.

and Diesendorf, W. (ed.), *The Snowy Mountains Scheme Phase 1; The Upper Tumut Projects*, Sydney, Horowitz, 1961.

¹⁰⁵. Murray, Robert, *The Split: Australian Labor in the Fifties*, Melbourne, Cheshire, 1970 and Hagan, J., *A History of the Labor Party in New South Wales 1891-1991*, Melbourne, Longman Cheshire, 1991 and d'Alpuget, B., *Mediator: A Biography of Sir Richard Kirby*, Melbourne, Melbourne University Press, 1977.

¹⁰⁶. Prasser, Scott, Nethercote, J. R and Warhurst, John (eds), *The Menzies Era: A Reappraisal of Government, Politics and Policy*, Sydney, Hale and Iremonger, 1995 and Lee, David, *Search for Security: The Political Economy of Australia's Postwar Foreign and Defence Policy*, Sydney, Allen and Unwin, 1995.

¹⁰⁷. McFarlane, Bruce and Catley, Robert (eds), *Australian Capitalism in Boom and Depression*, Chippendale, Alternative Publishing Co-operative, 1981, pp. 78-9.

¹⁰⁸. Lowe, David, *Menzies and the Great World Struggle: Australia's Cold War 1948-1954*, Sydney, University of New South Wales Press, 1999, p. 11.

The Upper Murrumbidgee to the Upper or Lower Tumut? (Choices between Rival State and Commonwealth Systems II)

From the mid 1950s, construction intensified. The eventual acceding by the Authority to a New South Wales industrial award is, for Collis, the turning point of acceptance of the Scheme's constitutional validity.¹⁰⁹ Exactly how the concerns of the State governments were resolved by this demarcation issue is not, however, addressed. Relatedly and fundamentally, for Hardman, the new contractual arrangements introduced by the Snowy Authority arise as speed is seen by 'all' involved as the important criterion:

it would appear that the Authority was under political pressure to commence actual construction on its inception and subsequently maintain a rapid rate of physical progress.¹¹⁰

In a recuperative manner, Hardman then considers industrial relations (where bonuses mitigated against stoppages), housing (where transportable towns saved time and money) and safety (where the emphasis appears to have been on educating workers but not on re-designing work rates and practices). Hardman also provides the most detailed consideration given to the (crucial) Snowy Mountains Agreement negotiations of the 1950s.¹¹¹ He is critical of the lack of economic expertise which the Authority displayed.¹¹²

The introduction of US contractors and their take-over of the Adaminaby (or Eucumbene) dam project is regarded by Collis as a crucial episode in this regard as they "revolutionised employment terms, conditions and work expectations".¹¹³ The production-line of the mine, the piece-rates, the new tunnelling equipment and the machismo competitiveness of the miners (at the encouragement of the contractors), are all extensively covered by

¹⁰⁹. Collis, *op. cit.*, p. 143.

¹¹⁰. Hardman, D. J., *Snowy Scheme Management and Administration*, Sydney, West, 1970, p. 86. Also see Hardman, D. J., *The Snowy Mountains Hydro-Electric Authority: A Political and Administrative Study*, Master of Economics Thesis, Sydney, University of Sydney, 1967 and Hardman, D. J., "The Snowy Mountains Hydro-Electric Authority; Origins and Antecedents", *Public Administration (Australian Regional Groups)*, Vol. 27, No. 1, 1968.

¹¹¹. Hardman, 1970, *op. cit.*, pp. 115ff.

¹¹². Hardman, 1967, *op. cit.*, p. 72.

¹¹³. Collis, *op. cit.*, p. 134.

McHugh and Collis. The question of safety and the speed of the work is also addressed.

Even though conditions faced by the predominantly migrant workers are well covered, more questions could be asked about this rate, especially as it allowed planners to achieve alterations. The working conditions for migrants in particular, the relations with the community and with the Americans plus the broader connections to State and Federal governments, are largely seen as facilitating or impeding the layout of the Scheme, not constituting its actual form.

Nevertheless, crucially for planning outcomes as influenced by industrial relations, McHugh describes how the Australian Workers Union (AWU) and the New South Wales Industrial Relations Commission in league with Kaiser contractors, arranged a deal to avoid federal coverage and, in effect, to charge cost escalations to the Snowy Authority.¹¹⁴ The AWU is portrayed--via the interviews--as being more concerned about its own power and membership strength than about the welfare of the workers.

Further, Ravenscroft is broadly critical of the lack of support provided by the Authority for secure and stable communities for Snowy workers and their families, continually abandoning settled villages. In terms of gender power relations, McGoldrick throws further light on the masculine imperatives at work within the Authority.¹¹⁵

In doing so, a further critically orientated theme is raised. The distribution of benefits to those who worked on, or who supported workers of the Scheme, and how this related to Agreement negotiations and thence to planning outcomes, is broached. Via the intensification of Agreement negotiations and thence work practices on Upper Tumut works (as plans were being made to divert Upper Murrumbidgee water to the Upper rather than Lower Tumut), the pressures on planning choices may be related to redistribution issues during the mid to late 1950s.

Contextually, Kobal provides many insights into the dislocated cultures of isolated migrant workers on the Scheme seeking to adjust to a new

¹¹⁴. McHugh, op. cit., pp. 151-4.

¹¹⁵. McGoldrick, Kirsty, *Snowfraus: The Women of the Snowy Mountains Scheme*, East Roseville, Kangaroo Press, 1998.

homeland.¹¹⁶ Particular experiences as well as statistics of 'DP's' or displaced persons, migrating to Australia after war and being recruited to spend their two year work-as-directed contract on the Scheme are provided by Kunz.¹¹⁷ Kunz also notes, as summarised by Jupp, the ambivalence of migrants as it combined "gratitude at rescue from Europe with resentment at exploitation by the Australian authorities."¹¹⁸ The context of the growing 'migrant communities' of industrialising Australia (including the Snowy) and the political, industrial, training and cultural difficulties faced by them, this "reserve army" of labour, is also addressed by Jupp.¹¹⁹

How Flexible a 'North-South' Interconnection?

In a manner which may form an implied relation between indigenous rights and planning outcomes, Unger provides details of design decisions, via comments from the engineers involved and which relate to the continually expanding demand upon regulated water flows. The state electricity commissions are said to have come around to the planning philosophy of peak power by the time it came to design the Tumut 3 power station.¹²⁰ The design change to integrating the north-south division, which marks a new orientation of the Scheme within a larger grid system, are outlined.¹²¹ Latterly, the plan for completely reversible water flow, via this interconnection, was disputed by South Australia's Premier, Playford. As he was concerned to protect water quality for South Australia, this may also form a (fifth) planning choice, which can be linked to indigenous, 'qualitative' (indigenous and/or environmental) claims as well.

Seddon has written an environmental-heritage history of the Snowy River itself. He highlights the dubious economics of the Scheme but rarely discusses the historical claims and counter-claims for this river's waters.¹²² He discusses the indigenous peoples of the Tumut or northern

¹¹⁶. Kobal, Ivan; *Men Who Built the Snowy; Men Without Women*, Sydney, Saturday Centre, 1982.

¹¹⁷. Kunz, Egon F., *Displaced Persons: Calwell's New Australians*, Sydney, Australian National University Press, 1988.

¹¹⁸. Jupp, James, *Immigration*, Melbourne, Oxford University Press, 1998 (2nd ed.), p. 105.

¹¹⁹. See chapters 3 & 4 in Jupp, James, *Arrivals and Departures*, Melbourne, Lansdowne, 1966.

¹²⁰. Unger, op. cit., p. 174.

¹²¹. Ibid, pp. 114-16.

¹²². For comments on the Scheme's economics see ch. 2 in Seddon, G., *Searching for the Snowy: An Environmental History*, Sydney, Allen and Unwin, 1994.

regions as well as those from the Snowy Valley. Seddon also details the cultural geographic changes to the river valley and considers the Aboriginal history and culture of the 'custodians of the land'.

Except by Seddon, the history of the dispossession and/or dispersal of Aborigines from the alpine and associated regions have often been glossed over or ignored by the principal accounts. Early land wars were crucial in this history of dispossession,¹²³ as were destructive assimilationist policies since the arrival of Europeans.¹²⁴ Flood, albeit from an archaeological perspective, provides much detail of pre-European indigenous habitation and culture of the alpine and nearby regions.¹²⁵ Latterly, and importantly, this has given rise to further debate and clarification about the practices of traditional indigenous peoples and the continuing occupation by their descendents.¹²⁶ Taped interviews have been made recording the experiences of Aboriginal people of the regions, with occasional reflections about the Scheme itself.¹²⁷ That more historical work is required to meet changing Australian legal requirements for land rights post-Mabo,¹²⁸ has been recommended by the 'Stolen Generations' inquiry.¹²⁹ Work is currently being undertaken by Wesson on an atlas of south east New South Wales and north east Gippsland. Aboriginal researchers in co-operation with the New South Wales Parks and Wildlife Service are seeking to contribute to this process.¹³⁰

¹²³. See, for example, Gardner, P. D., *Gippsland Massacres: The Destruction of the Kurnai Tribes 1800-1860*, Ensay, Ngarak Press, 1983.

¹²⁴. Gardner, Peter D., "Aboriginal History in the Victorian Alpine Region", in Scougall, B (ed.), *Cultural Heritage of the Australian Alps: Proceedings of the Symposium Held at Jindabyne, New South Wales, 16-18 October 1991*, Canberra, Australian Alps Liaison Committee, 1992.

¹²⁵. Flood, Josephine, *The Moth Hunters: Aboriginal Prehistory of the Australian Alps*, Canberra, Australian Institute of Aboriginal Studies, 1980.

¹²⁶. Scougall, B., *Cultural Heritage of the Australian Alps: Proceedings of the Symposium Held at Jindabyne, New South Wales, 16-18 October 1991*, Canberra, Australian Alps Liaison Committee, 1992 and Young, Michael with Ellen and Debbie Mundie, *The Aboriginal People of the Monaro*, Sydney, NSW National Parks and Wildlife Service, 2000.

¹²⁷. Hodges, Sue, *Australian Alps Oral History Project 1994*, unpublished report [and tapes], Canberra, Australian Alps Liaison Committee, 1994.

¹²⁸. Rowse, Tim., *After Mabo: Interpreting Indigenous Traditions*, Melbourne, Melbourne University Press, 1993.

¹²⁹. Wilson, R. D./National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from their Families (Australia), *Bringing Them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from their Families*, Sydney, Human Rights and Equal Opportunities Commission, 1997, p. 297.

¹³⁰. Young et al, op. cit.

More recently, Mussared has 'translated' the results of recent scientific studies into the alarming degradation of the rivers of the Basin as they have been subject to systematised flows.¹³¹ White has reviewed the paleo-archaeological reasons for land degradation in the Basin.¹³² Breckwoldt provides historical account of the Soil Conservation Service of New South Wales.¹³³ Of the Alps themselves, Hancock provides an environmental history as does the earlier work of Costin, reviewed by Robin.¹³⁴

Constitutional issues of control over water also remain of relevance; the Yorta Yorta inland waters and land claim was recently heard before the Victorian Federal Court. It failed and is to be appealed.

(v) Critique in Outline--Fordist Rivers

In this study of the planning of the Snowy Scheme, the argument of the thesis will be presented in a five chapter structure. Via the critical and cultural studies approach outlined above, five significant moments of planning identified in the literature review are investigated, each concentrating on one significant episode of interpretative choice. Covering aspects of planning changes from the late 1930s to the early 1960s, these technocultural choices concern the fundamental layout of the Scheme's principal components of tunnels, dams and power stations.

By selectively examining the piece-by-piece aggregation and re-focussing of its 'multi-purpose' design, it will be shown that diversifying, democratising and/or corporatising as well as dependent processes of 'nation building' were involved. Inter-governmental or federalist resource planning processes, as large irrigation systems and the inter-state electricity grid were being formed, provide a common thread of analysis. Oppositional threads, from communities and cultures advantaged or sidelined, provide crucial counterpoints.

¹³¹. Mussared, David, *Living on Floodplains*, Canberra, The Murray Darling Basin Commission, 1997.

¹³². White, Mary, *Listen...Our Land is Crying*, Kenthurst, Kangaroo Press, 1997.

¹³³. Breckwoldt, Roland, *The Dirt Doctors: A Jubilee History of the Soil Conservation Service of New South Wales*, Sydney, The Service, 1988.

¹³⁴. Hancock, W. K., *Discovering Monaro: A Study of Man's Impact on his Environment*, Cambridge, Cambridge University Press, 1982. Robin, Libby, "Radical Ecology and Conservation Science", *Environment and History*, Vol. 4, No. 2, June 1998.

Technocultural Borderlands and Schemes of Nation

Initially, the crisis of being 'alone in Asia', arising especially during World War II, is followed by the emergence of the US as a global power and by TVA models for development. These models interplay with multi-stable yet also limited possibilities for planning regions, linked to Snowy Scheme options and hence for nation building. Specifically, regionalism, re-contextualised in Australia as a new, 'grass roots' planning movement, becomes important. As the variously imagined Snowy Schemes feed horizons of local development, they are considered in relation to possibilities of a federally or state aligned regionalism. Decentred possibilities of regionalism--indigenous and other aspirations--are also considered. Nevertheless, a directive, or 'scientific', strand of 'TVA-ism' came to dominate, as the Commonwealth sought control of the Scheme. This 'quantitative' regionalism, part of an evolving post-war reconstruction, encouraged an expansive, mass production approach to the development of the water cycle and of ecological systems.

The Hydro-Electrified River on the Hill

These regionalist manoeuvres, linked to Commonwealth financial strategies aimed at 'outflanking' the State's constitutional powers over resources, allowed the Commonwealth to gain partial planning control of the Scheme. The second chapter considers how planning processes fared in this context. The constitutional challenge to nationalised banking by the States and capital added to the Commonwealth's troubles. These circumstances encouraged a defence-linked (TVA) justification for Commonwealth control as well as expert secrecy over Snowy options as the Chifley government struggled to ensure security for labour. In particular, the embattled Commonwealth government sought an 'automatic', hydro-energy-intensive emphasis approach by combining two, already large options. This led to the marginalisation of the Snowy River region. As planning advanced according to the hegemonic 'efficiencies of scale' of engineers to better enlist the wary States, all water went west with little consultation. Amongst constitutional and post-war global-politic strains, the growing technocracy was accompanied by a quantitative, majoritarian outcome.

Now Bloomed by Diesel Fumes

With the coming to power of Menzies from late 1949, a Liberal-Country Party alliance shifted the Scheme's focus. Via the enlargement of Adaminaby to Eucumbene dam, it shifted towards a more financially viable (energy intensive) agribusiness Scheme. This is explained within the context of a shifting range of corporate, global capital and internal coalitions and tensions, tending toward a dependent, commodity export economy. Extra finance and expertise was required and World Bank loans arrived in parallel with (mainly) US construction methods and capital to build 'irrigation' projects for such trade. The role of filmic public relations campaigns and of a mooted Snowy Mountains Council is also considered as such a shift was negotiated with the States. As lignite in particular was cut, and amongst the drums of hot and cold war, engineers indulge in graphic, technological frontiersmanship. Filmic public relations in support of large technological systems vie with the possibilities of institutional communicative practices.

Infrastructure's Migrants & Uncle Toms

As plans for the Upper Tumut shift towards meeting shorter rather than longer term (or intermediate rather than peak load) power requirements, and amongst the continuing strained negotiations between governments and engineers, cross cultural labour relations become vital. Specifically, industrial standards failed to keep up as new construction equipment and pressures for quicker outcomes arrived. Circumstances were dominated by disputes over uniform taxation powers, rights over resource planning powers, vying systems building emphases, growing corporate unionism and piece-rate work regimes. A case study of the organisational work of a union representative for migrant workers, however, reveals how realities on the ground were a challenge to both unions and management. Jerzy Bielski challenged the false populism of assimilationism and the economic pressures eventually helping to ease the exploitation of a multicultural workforce labouring in dangerous circumstances.

Enclosing Circles of the Basin

Fifthly, the redesign of the Eucumbene to Geehi tunnel to prevent water flowing from the Upper Murray to Upper Tumut catchment, is examined as

an example of a partially successful, if contradictory, challenge to the dominant post-war, 'full utilisation', water planning ethos. Playford, as Premier of South Australia, challenged a simple quantitative paradigm with his concerns about falling riverine water quality. Playford required that Upper Murray (although not Upper Snowy) water be retained in its river basin. In parallel, by reviewing indigenous heritage and the often dislocated relations to land and water, non-quantitative indigenous claims to water (which had implications for major planning changes) are also examined.

Conclusion--Interpreting a Spinning Reserve

Finally, by way of characterising outcomes, the metaphor of 'spinning reserve', beyond its technical or emergency stand-by meaning, is used to assess just how inclusive, environmentally benign and democratic this megatech project has been.

Along with the construction of highly regulated or 'fordist rivers', many social outcomes were in tune. Within the framework of post-war reconstruction, regional planning focussed on an extractive approach to the water cycle and on co-ordinating regional resources for a 'full utilisation' economy in a semi-arid terrain. Decision making processes also became quantitative and 'scientific'. Communicatively constructed outcomes were often circumvented amidst competing corporate forms and constitutional strain. Amongst shifting, global trading blocs and Cold War deals, sophisticated public relations then came forward in the early 1950s. Potentially more open institutional options were stifled by nationalist rhetoric. Then, Cold War unionism and industrial democratic processes privileged Anglo-centric values, exacerbating problems faced by a cross-cultural labour force. Indigenous cultures lost out to highly instrumentalised outcomes that sought to achieve Anglophone goals.

Nevertheless, the 'country first' Scheme, part of the government backed or 'socialised' credit regimes of the Keynesian 'golden age', contributed to the support of (most) faltering rural and regional areas and to full employment, dramatically improving the standard of living of regions (and of cities). Many groups also developed their capacities to argue their case. The Snowy Mountains Council eventually emerged as an institutional mechanism for brokering vying systems philosophies. Corporatist and

assimilationist unions facing problems of an expanding migrant workforce, gradually learnt how to deal with cross-cultural difficulties. The Scheme included in its built outcomes, recognition of claims seeking to protect water quality. Although little regard was given to indigenous claims to resource rights and to custodianship, their claims have persisted through the half-century since the project began.

Chapter 2: Technocultural Borderlands & Schemes of Nation

During the late 1930s in Australia, a number of interests were competing for economic and social advantage. The traditional mainstay of the economy--agriculture--was again seeking to achieve leadership. Water engineering, too, was seeking to overcome the social malaise of Depression, arid interiors and a lack of human resources and adequate population. In 1936, for example, Alex J. Gibson, an engineer from the Murrumbidgee Valley, offered a survey whilst addressing the topic: "shaping the future of Australia". He sought to apply reclamation to apolitical or scientific ideas. By combining a mixture of Veblen and co-ordinating, 'multi-purpose' development approaches, as a way of conserving and developing resources, he considered the engineers' role. In the current "machine age", the prevention of "avoidable waste" had not, he argued, been undertaken. His conclusion was that expertise, as a conservation-as-planning engineer, could mitigate the cycle of droughts and floods and control its waste. Sufficient water exists "for our purposes" but the problem was to "regulate the periods of prodigality and scarcity."¹

By late 1937, amidst continuing efforts to improve the main storage on the Murrumbidgee, the Burrinjuck Reservoir, it had been agreed that a federal conference of senior irrigation commission officers would be convened. It would discuss possibilities and measures to, at least, "plan a program of development."² Frank Brewster, the Chief Engineer of the New South Wales Water Conservation and Irrigation Commission (WC&IC) had two years earlier submitted a fifteen (and later twenty) year program of development. Its focus was on the water resources of the State, for the Murray Darling Basin in particular, but its details remained to be investigated. The New South Wales Cabinet was unable to ensure that the Loans Council would agree to the on-going expenditure required. Nevertheless, the Agricultural Council, itself relatively new and Commonwealth backed, was also resolving to push for "co-joint action."³

¹. Gibson, J. A., "Shaping the Future of Australia", *Journal of the Institution of Engineer's Australia*, Vol. 8, No. 1, 1936, p. 37.

². "Next 30 Years Vital to Australia", *SMH*, 6/12/37.

³. Extract from report of proceedings of meeting of Australian Agricultural Council, August, 1937, SRNSW: 18/1337, 38/8422, *Water Conservation & Irrigation, proposed national scheme*.

J. J. C. Bradfield, as the colourful doyen of Australian engineering, was soon doing much to publicise such ideas. Bradfield, indeed, was developing such 'conservation' ideas as the proposal that the central and eastern portions of the continent be rid of desert! A fiscally provocative 'climate change' proposal for watering the interior, amounting to a cultural geographic challenge for nationhood, was his device. This combined soil and farm conserving scenario involved various inland diversion and storage schemes. Canals and tunnels spread across the north of Queensland would bring water inland, under the Selwyn and Great Dividing Ranges and two other schemes, in the Eyre Basin and along the Fink River, would dam flood waters.⁴ Its aim was to replace the often absent drift of monsoonal rains into much of the interior (figures 1 & 2). Applying the latest civil engineering technologies of United States inspiration to the problem, the Eyre Basin and everything eastward was to be saved.

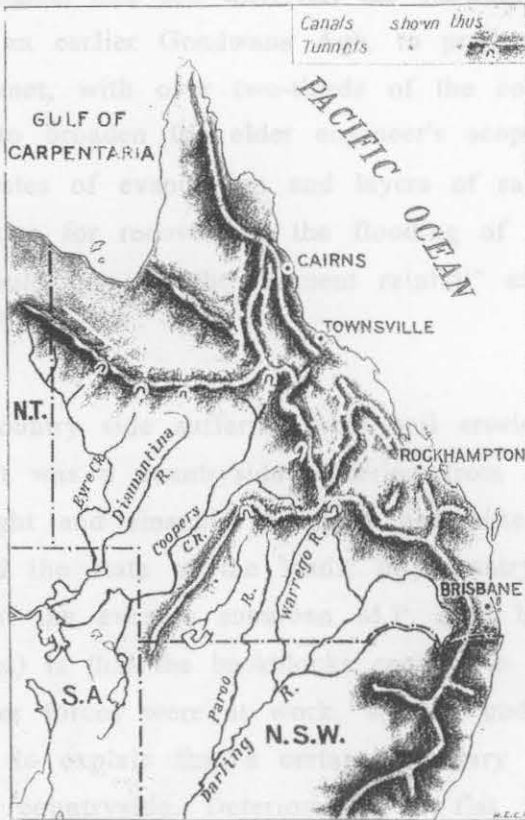
Given the semi-arid and drier natures of the interior, Bradfield argued that for such a dry continent, radical engineering proposals were required. Bradfield believed that the current problems arose as a cumulative process of drying lands, leading to further drying out, especially to the east, as the weather and the dry air drifted across the continent from the parched interior. He therefore emphasised the outback, as if it were a defence line for the agricultural viability of the whole country. There was a need to supply water to the interior, a lot of water:

The thing is cumulative in this way; the arid air-drifts from those desolate, wind-swept wastes in the interior can bring withered pastures and dried up water holes to districts far removed from the actual scenes of drifting sands...How then would you propose to deal with this invisible foe?...The cry that goes up from the perishing inland is for water. Water is the key of heaven so far as those inland regions are concerned. Water! Water!...If the inland withers it will bring desolation to the cities on the coasts; not famine in a day, but slow and certain economic death, keeping pace with the great basic industries (wool, wheat and meat) as they shrivel.⁵

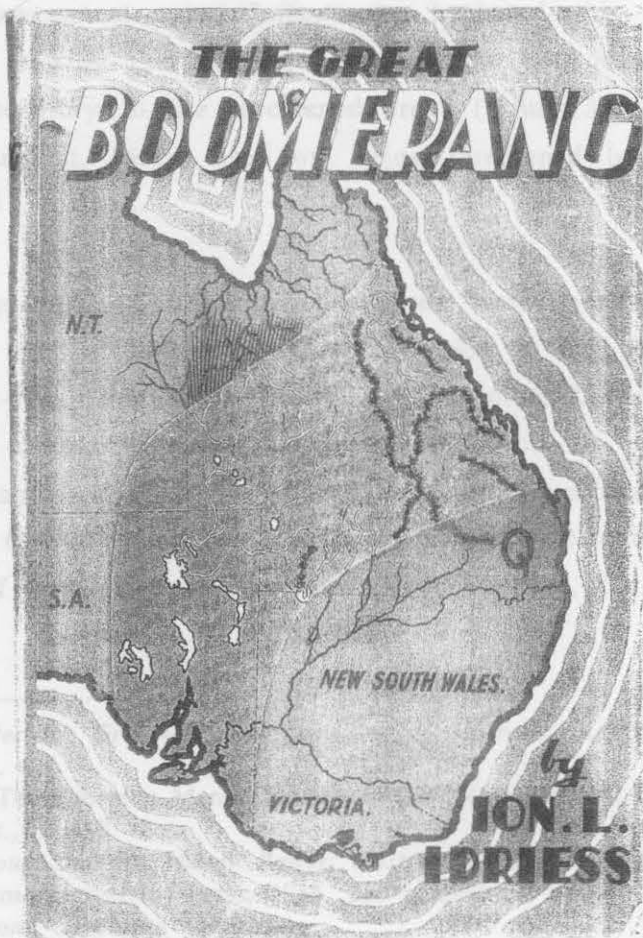
⁴. Burton, John R., *Water For The Inland - A Review of the Bradfield Plan*, Sydney, Water Research Foundation, 1961, p. 2f.

⁵. 'Bacblox', "The Conservation and Control of Water", *The Pastoral Review and Graziers Record*, 16/2/38, p. 138.

Figures 1 & 2; Map from Idriess, I., *The Great Boomerang* [1941], facing page 251 and cover.



Showing an approximate system of channelling which would divert water from the coastal rivers inland through the watershed ranges.



In terms of its biological and soil histories, the continent had taken a dramatic turn since an earlier Gondwana Age, to produce the driest continent on the planet, with over two-thirds of the continent classified as arid.⁶ This served to broaden the elder engineer's scope. Astonishingly perhaps, given the rates of evaporation and layers of salt, as a supporter argued, "our only hope for recovery is the flooding of our central depression." This would "renew" the "ancient rainfall" and, as a result, "restore...Paradise."⁷

Not only was the country side suffering from soil erosion and drought, Bradfield believed, it was a countryside suffering from neglect by city politicians. As drought and financial hardship had bitten hard into farmers' incomes and the state of the lands, city-country tensions were also high; "the attitude of the average suburban M.P. (and he predominates in Australian Legislatures) is that the backblocks can go to the dogs..." He also suggested that broader forces were at work. Writing under the name of 'Bacblox', he sought to explain that a certain monetary chain of causation travelled across the countryside. Deteriorating or flat financial conditions also made the countryside vulnerable to metropolitan financial interests. The downward investment spiral "affects the banker in his office in London who is backing the pastoral company that supports the stockowner who holds the territory in the threatened area" (figure 3). Thence, with this combined neglect, "areas are now being threatened by chronic drought and soil erosion..."⁸

In contrast to prevailing orthodoxy, therefore, 'water conservation' of the late 1930s often entailed a fiscally expansive vision as well. It sought to counter the debt-shy tenor of the 1930s with a proto-Keynesian thence expanding ('full utilisation'), consumerist economy, or, for the moment at least, sought to apply ideas of social credit. It was often against restricted credit that had (recently) seen so much "financial oppression."⁹ For the popular writer of outback and travel stories, Ion Idriess, for example, by

⁶. White, M. E., *After the Greening; The Browning of Australia*, Kenthurst, Kangaroo Press, 1994, p. 13.

⁷. Warren, J. C., "The Creeping Menace of the Inland", *Life*, 2/11/42, p. 23.

⁸. 'Bacblox', op. cit., p. 138.

⁹. Love, Peter, *Labour and the Money Power: Australian Labour Populism 1890-1950*, Melbourne, Melbourne University Press, 1984. See chapter 7 "The 'A plus B' of Financial Oppression - Douglas Credit".

Figure 3; Cartoon by Dowman (untitled, n.d.), ML PIC Acc. 4899 (E. S. Spooner Papers).



¹⁰ Idem, *The Great Riverways*, Sydney, Angus and Robertson, 1941, p. 219-1.

¹¹ Davidson, B. R., *Australia Wet or Dry?*, Melbourne, Melbourne University Press, 1962, p. 227-9.

¹² Idem, *op. cit.*, p. 227-8.

¹³ *Ibid.*, p. 235.

¹⁴ Angus, "The Birth of an Inspiration: A Difficult Questionnaire Submitted by Dr. Bradford", *The Queensland Producer*, 1/3/19, pp. 24-31.

¹⁵ Idem, *op. cit.*, p. 235.

¹⁶ Idem, *op. cit.*, p. 15.

1941, "money and costs have taken on a new meaning." It was no longer necessary to suffer from privatised credit but to count "the snowball effect of the resulting benefits"¹⁰ of a socially underwritten program of expenditure. Even as Bradfield's continental-scaled futurism would come to be dismissed as impracticable, proponents sought to offer an engineering and financial challenge by mooted a massive, if speculative, national development project.¹¹ Inspired by the challenging ideas, Ion Idriess-- more daring than most--then joined forces with the agrarian nationalism of the diesel powered water engineers. In his *The Great Boomerang* (1941) he stated: "it cannot be said that our job is impossible...these are the days of the bulldozer...and with all the advances in engineering science, surely we can do it."¹²

At their pre-war, nationalist root, these budding technological, political, financial and media-savvy forces were also seeking to be the means by which an enlarged and thence more secure 'White Australia' nation could be built. To return to Bradfield's scenario, the ultimate aim, as described by Idriess, was to defend Australia by avoiding the "deadly peril" of a thinly populated country, to have "a fighting chance of survival in any future war."¹³ Similarly, for the editors of the *Queensland Producer*, such projects offered the "vision of a new inland province", a province that would "prove an important factor in any plan of defence."¹⁴ As suggested by the title of Idriess' book, *The Great Boomerang* (1941), a modernising, 'aero dynamic' swathe of development across the centre of the continent would act as a defensive device; this plan would "bring new cities, new industries and a great, far-spread population in our inland."¹⁵ The civil engineering academic John Burton later remarked, "in 1940 many people felt the Bradfield plan to be essential to our national survival."¹⁶ Bradfield was at least an immediate tonic, if also long term proposal, for discouraging a Japanese threat of invasion.

¹⁰. Idriess, I., *The Great Boomerang*, Sydney, Angus and Robertson, 1941, p. 250-1.

¹¹. Davidson, B. R., *Australia Wet or Dry?*, Melbourne, Melbourne University Press, 1969, p. 227-9.

¹². Idriess, op cit, p. 227-8.

¹³. Ibid, p. 235.

¹⁴. Anon, "The Birth of an Inspiration. A Different Queensland Visualised by Dr. Bradfield", *The Queensland Producer*, 1/3/39, pp. 28-33.

¹⁵. Idriess, op. cit., p. 235.

¹⁶. Burton, op. cit., p. 15.

As such, this 'Great Boomerang' offered to populate the interior and to bring the country back to a time when "parakeelia clothed the landscape"¹⁷ whilst harnessing an apparently vacant, yet frustratingly profligate nature. To continue laying foundations for agrarian nation building was to boldly control and remake nature. That is, for that 'old curmudgeon' Bradfield again, "the conquest of those interior lands, at whatever the cost, is a job of work that Nature has given us in our own country."¹⁸ His was a challenge to a worthy yeoman of Empire ethos--and occupation--seeking to boost the historically dominant, agrarian frontiersmanship of nation building. Such themes of preventing rivers running to waste, to build up an agrarian population, would provide a major popular backdrop to post-war planning (figure 4).

As well as proposing a swathe of development through an appropriated image of the boomerang, Bradfield was, ironically, seeking to restore lands to the state established by the Aborigines. As a result of the long history of being cultivated by 'fire stick farming', Aborigines had produced grasslands with a "fine park-like appearance" as John Oxley wrote about the Lachlan Valley in 1817.¹⁹ Thence settlers moved in "and benefited from, the ancient society and economy."²⁰ Now, however, in place of abundant bird life, the land was suffering from overgrazing, rabbits and drought. Far from being "empty spaces", Aborigines had also constructed their own riverine structures. In the north of the Basin at Brewarrina, for example, stone structures existed "to maintain a constant yield of fish no matter how dry or flooded the rivers might be."²¹ But when paddle steamers were able to travel far enough upstream they progressively broke down the fishing weirs.²² Ironically, stones from the weirs formed other foundations. Just as the 'parklands' served to found agriculture, the stones were used to form river crossings, enabling settler access to the north of Brewarrina. They were also used in the foundations of town buildings and

¹⁷. 'Backblox' [Bradfield], "Water for the Perishing Inland", *The Pastoral Review and Graziers Record*, 16/8/38, p. 881.

¹⁸. Ibid.

¹⁹. Oxley quoted in Reynolds, Henry, *With the White People*, Melbourne, Penguin, 1990, p. 9.

²⁰. Reynolds, Henry, *With the White People*, Melbourne, Penguin, 1990, p. 17.

²¹. Goodall, H., *Invasion to Embassy: Land and Aboriginal Politics in New South Wales, 1770-1972*, Sydney, Allen and Unwin, 1996, p. 11-12.

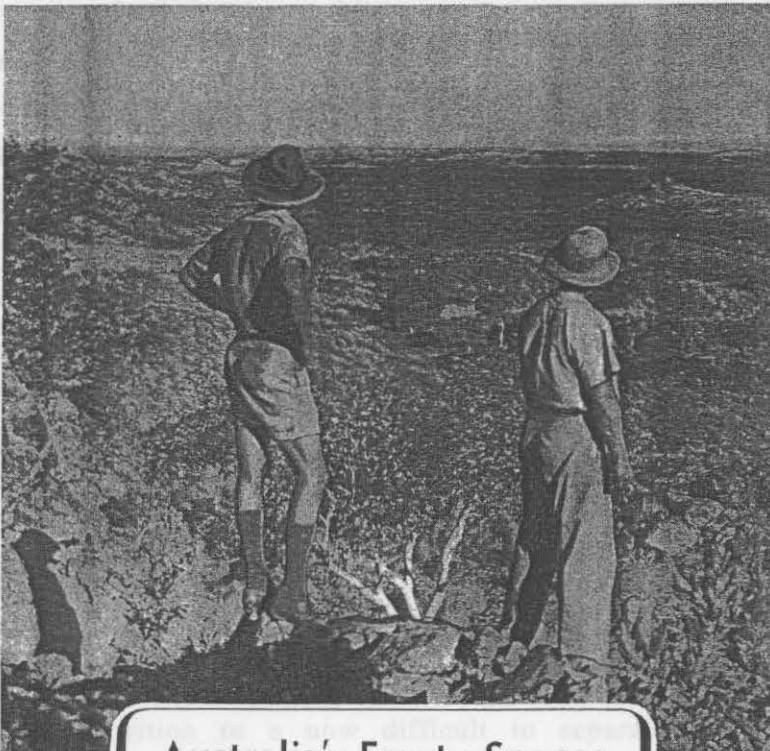
²². "'Ngunnha': The Aboriginal Fisheries", *SMH*, 6/1/34.

Figure 4; Cover photograph from "Australia's Empty Spaces", *Current Affairs Bulletin*, Vol. 12, No. 1, 14/9/42.

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Australia's Empty Spaces

Map:
World Population.

AUSTRALIAN ARMY EDUCATION SERVICE

¹ Duggin, F., *Aboriginal Fisheries of the Darling-Barron Rivers*, Brewarrina, Brewarrina Historical Society, 1976, pp. 57, 63.

² Mumford, Lewis, *The Culture of Cities*, London, Secker and Warburg, 1938, p. 313.

road works.²³ Nevertheless, proposals to defend a more prosperous nation extended beyond a conquering attitude towards nature and denying indigenous culture. Many competing proponents, arising unevenly amongst dominant approaches, sought to enhance mutual dependence, or, co-existent possibilities of nature-technology-polity-culture. Concepts such as 'grass roots' planning and devolved regionalism, for example, suggested that multipurpose river basin development could encompass vying and overlapping approaches, beyond the narrowly instrumental.

Diverse strands of multipurpose development were also inspired by US precedents. Multipurpose river basin development had been pursued by the Tennessee Valley Authority, a major New Deal initiative of Franklin Delano Roosevelt. It sought to provide employment and re-development of the over-farmed and poverty stricken Tennessee Valley. Involving a 'whole river basin approach' to the planning of development, TVA-ism entailed the co-ordination of activities by central (Federal) engineering administrative organisations. Its ambit grew to cover activities as diverse as flood control, soil-conservation, hydro-electricity generation (coal and nuclear electricity generation later), reforestation, irrigation and other activities. Before the corporatism of the TVA emerged, it was a highly complex and contested vehicle for planning idioms. As it exemplified the success of 'active government' in overcoming Depression, it provided a major, worldwide icon for the pursuit of modernising development.

The American historian and planning critic, Lewis Mumford, advocated more democratically responsive and locally related approaches. He proposed an ethic of technology that elaborated potentials of a region, to enhance or to bring "out a hitherto undiscovered color"²⁴, such that regional elaboration enhances distinctions between regions, multiplies differences and brings out (selected) emergent qualities. The revealing character of technology is understood as potentially in sympathy with rather than in opposition to a now difficult to separate-out 'environment'. Beyond, therefore, city-country polarities of power and colonising control, concepts such as "earth-culture" or "bio-technics" were coined. Through regional development, nature and its local characteristics could gain greater expression.

²³. Dargin, P., *Aboriginal Fisheries of the Darling-Barwon Rivers*, Brewarrina, Brewarrina Historical Society, 1976, pp. 57, 63.

²⁴. Mumford, Lewis, *The Culture of Cities*, London, Secker and Warburg, 1938, p. 313.

Consequently, the TVA project was viewed optimistically by Mumford in 1938, as a trajectory that considered such possibilities. It was a potential harbinger of a "new social order and a new type of urban environment", provided, of course, that "the requisite political courage and social imagination are collectively brought to bear."²⁵ In place of 'agglomerating cities' and the accompanying dust bowls and degraded towns and farms, a political program to empower those on the land was anticipated. It offered to challenge existing dependencies of the country on the city--to revivify the countryside--through overturning degrading forms of land-city symbiosis.

Although often the result of inequitable bargaining, the United States had also evolved many land rights treaties, dating back for over a century. Federal control over indigenous affairs, aimed at establishing "domestic dependent nations", arose during the first half of the nineteenth century. These granted limited autonomy for indigenous peoples within a context of overall control by the States. In 1909, water rights for reservations were granted.²⁶ Although not mentioned in land treaties, the US Supreme Court ruled that water rights were, in effect, granted with an earlier treaty and as much water as necessary should be available to make the reservations livable.²⁷ Later, the Supreme Court held that these indigenous water rights were prior and superior to other claims.²⁸ Nevertheless, a major countervailing influence arose from the Bureau of Reclamation as it interpreted indigenous American water rights "as narrowly as possible."²⁹ Further, within the federalist system of the United States, the success of the efforts of indigenous peoples have also varied according to the power of the States as they "compete most directly with the tribes for economic benefits arising from control of resource development."³⁰

As part of the New Deal of Franklin Roosevelt, indigenous Americans then gained improved federal protection for their treaties and greater respect

²⁵. Ibid, Illustration 23; "Agents of Regional Development".

²⁶. Burton, Lloyd, *American Indian Water Rights and the Limits of Law*, Lawrence, Kansas, University of Kansas, 1991, p. 6. Also see Norris Hundley Jr., "The Dark and Bloody Ground of Indian Water Rights", *Western Historical Quarterly*, 9, 1978, pp. 455-82.

²⁷. Berkman, Richard L. and Viscusi, W. Kip, *Damming the West: Ralph Nader's Study Group Report on the Bureau of Reclamation*, New York, Grossman, 1973, p. 154.

²⁸. Ibid, p. 154.

²⁹. Ibid, p. 157.

³⁰. Burton, op. cit., p. 7.

towards their particular claims to resources. Better protection against efforts by the States to gradually whittle away their resources was provided, although no Supreme Court support would be forthcoming to bolster water rights per se. The new Commissioner for Indian Affairs, John Collier, also favoured the granting of "opportunities at self government", and encouraged the revival of tribal customs, "including the original language and religion of each tribe."³¹ Collier was also concerned to place professionally trained indigenous Americans in positions of responsibility within their own communities. The vast majority of work, however, consisted of indigenous Americans doing labouring jobs for the Civilian Conservation Corps. Nevertheless, the 'New Deal' for indigenous Americans would profoundly influence local efforts, especially as they arose in concert with the Snowy Mountain Hydro Electric Scheme.

The actual design for the use of the Snowy River current during the late 1930s was a relatively inexpensive run-of-the-river proposal.³² It was designed to be installed in two, parallel stages, as money became available. Water was to be diverted across a long and steep bend in the river from near Jindabyne to Bididi Point, a distance of about 18 miles. It would utilise, in two generating steps, a seasonally tumultuous drop in the altitude of the river (or a hydraulic head) of about 1,850 feet. It was also associated with regional aspirations. As early as 1920 the 'South Eastern Gate' of Australia--the area of south-eastern New South Wales and east Gippsland--had been hoping to benefit from the hydro-electric potential of the Snowy River. The local progress association, the Twofold Bay Development League, was keen to pursue this project and foresaw the port of Eden, and other towns, being developed into large provincial centres. Local electro-metallurgical processes could also take advantage of the Eden's superb, deep-water harbour and, with manufacturing industries established to do likewise, it was hoped that Eden would become "the Manchester of Australia",³³ exporting to the world.

But even this modest scheme was deemed to be too large for the region and out of the State Government's financial reach. Consequently, in 1935, the

³¹. Lowitt, Richard, *The New Deal and the American West*, Bloomington, Indiana University Press, 1984, p. 122.

³². New South Wales Government. *Report on Electrical Development in New South Wales*, Sydney, Govt. Printer, 1937 [the Rendell, Palmer and Tritton Report], p. 102.

³³. Twofold Bay Development League, *The South Eastern Gate, Eden?*, The League, 1926, p. 24, 62.

Snowy River Hydro Electric Development League was formed. It had the spur of representing a place remote from the metropolis, to stand up for local possibilities, and to insist that this favoured hydro project was a way of redressing this "callous" neglect.³⁴ Indeed, those who lived in the south east of the State of New South Wales lobbied for this 'Rendell, Palmer and Tritton scheme' (named after consulting and design engineers) according to the political methods of the Country Party, of the doctor of medicine, Earle Page (in particular) and his pursuit of the Premiership of New States. Within this approach, Federation implied that future new states would arise as a result of the 'logical' or expansive agrarian development of the continent.³⁵

A new design for the Snowy Scheme was, however, about to be mooted by a region on the other side of the range. It would combine an expansive-diversion vision with the priority of the irrigation commissioners--for irrigation--and led to renewed political scope for the scheme. The Murrumbidgee Irrigation Area (MIA), the 'home turf' of the WC&IC with its planned, garden towns of Griffith and Leeton, had been relying upon the undersized dam at Burrinjuck. With the drought of 1938, plus more farms and more rice growing, and continuing debt problems faced by fruit growers whose trees were only just bearing fruit when the Depression hit, water was soon at a premium.³⁶

The Large Area Holders Committee of the MIA organised a meeting in mid January 1939 to consider the options--a bigger wall at the Burrinjuck Dam or a dam on the Tumut (a tributary of the Murrumbidgee). The meeting was impressed by the proposal put forward by a local surveyor, Reginald Harnett, to divert water from the Snowy to the Murrumbidgee. Instead of acceding to the run-of-the-river proposal, he had revived a design based upon proposals brought before the 1884 Lyne Commission. He suggested that the State government review the cost and practicability of such a diversion and received a standing ovation from the meeting by way of endorsing this approach. The meeting closed with the setting up of the

³⁴. Trist, E. F., *The Snowy River As A National Asset*, Berridale, The Snowy River Hydro Electric Development League, 1943, p. 19.

³⁵. Page, E., *Truant Surgeon*, Sydney, Angus and Robertson, 196?, p. 171.

³⁶. An extensive treatment of these developments is given in Kelly, B. M., *From Wilderness to Eden; A History of the City of Griffith. Its Region and its People*, Griffith, Council of the City of Griffith, 1988, esp. Ch. 9; "Triumph Out of Diversity; 'The Snowy River Scheme'", from which I have drawn upon for the following.

Murrumbidgee Valley Water Conservation Committee. It would become the Murrumbidgee Valley Water Users Association (MVWUA) and would lobby for extra water for their valley (figure 5).

Before parting, Harnett gave to Reid, the New South Wales Minister for Agriculture, plans of the diversion. Reid, in turn, handed them on to the chief engineer of the WC&IC, Frank Brewster. Not surprisingly, the Commission soon came to believe that a diversion to the Murrumbidgee should be investigated instead of the proposed Rendell, Palmer and Tritton scheme.³⁷ In fact, this diversion would provide a major boost for Brewster's still dormant fifteen year program of developing the States water resources.³⁸ Firstly, the broader plan for the Basin would store water along the lower Darling. This would enable New South Wales to better meet its responsibilities to supply South Australia with water. Thence, the Snowy-Murrumbidgee diversion would greatly enhance irrigation prospects in the Murrumbidgee Valley.³⁹ But the New South Wales Mair-Bruxner coalition government continued to be as wary as ever of the extra expenditures involved, let alone any new plan. It continued to suggest that Commonwealth assistance be sought.⁴⁰

The Labor opposition leader in New South Wales, William McKell, was less inclined towards such fiscal conservatism. McKell had been studying the New Deal policies of the Roosevelt administration, finding them an "inspiration."⁴¹ With his election to the party leadership in 1939, an effort was made to improve Labor's country standing, under the slogan "the only real country party is the Australian Labor Party."⁴² McKell laid out a comprehensive set of rural policies at a special policy launch at West Wyalong. Under the general rubric of a 'Master Plan', a broad survey of agricultural potential was to be undertaken and a major 20 year program of dam construction across the State was to be commenced.⁴³ This was, in

³⁷. WC&IC, Extract from Minutes of Commission Meeting No. 1113, 26 June, 1939, SRNSW: 3K 60046, 39/15134, *Investigation, Diversion, Ariel Survey*.

³⁸. Report from Brewster to Rawlings, "Alternative Scheme for diverting the waters of the Snowy River into the Murrumbidgee...", 14/7/39, SRNSW: *ibid*.

³⁹. "Water Conservation on the Darling", *Murray Valley Newsletter*, Vol. 4, No. 9, Sept. 15, 1949, p. 141.

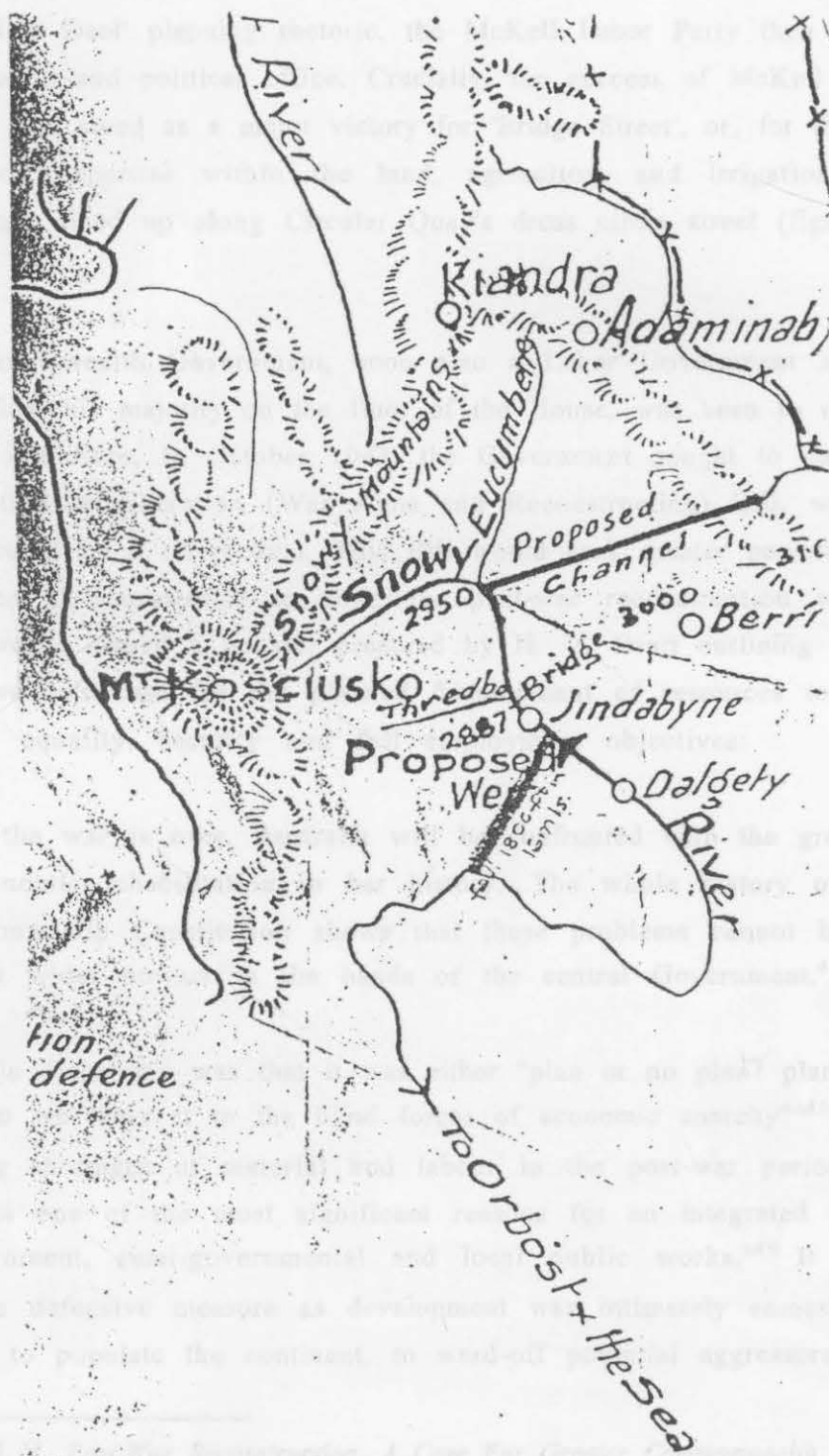
⁴⁰. Letters from Mair and Bruxner to Minister for Agriculture, 17/8/39 and 1/12/39, SRNSW: 3K 60046, 39/15134, *op. cit*.

⁴¹. Hallam, Jack, *The Untold Story: Labor in Rural New South Wales*, Sydney, Allen and Unwin, 1983, p. 41.

⁴². *Ibid*, p. 49.

⁴³. *Ibid*, p. 47.

Figure 5; Sketch by Harnett, R., "Sketch. Showing proposal to tap the Snowy River...", 6/1/39, attached to "Alternative Scheme for diverting the waters of the Snowy River into the Murrumbidgee...", Report from Brewster to Rawlings, July 14, 1939, SRNSW, 3K 60046, 39/15134.



effect, an enthusiastic endorsement of Brewster's own plan to provide water to the western lands. Consequently, whilst campaigning at Griffith, McKell announced that the Snowy River waters should be used, as in the case of the TVA, for *both* electricity generation and irrigation.

Using this fiscally *expansive* development of the State's water resources and a 'New Deal' planning rhetoric, the McKell Labor Party then won many country seats and political office. Crucially, the success of McKell and Brewster also stood as a major victory for 'Bridge Street', or, for the languishing expertise within the land, agriculture and irrigation departments, lined up along Circular Quay's dress circle street (figures 6 & 7).

The Commonwealth Government, soon also a Labor Government after Menzies lost his majority on the floor of the House, was keen to undertake planning initiatives. In October 1942, the Government sought to pass a bill, the Constitution Alteration (War Aims and Reconstruction) Bill, which was to be secured by a referendum. This Bill would seek greater powers to enable the Commonwealth to undertake post-war reconstruction work. The Commonwealth issued a booklet prepared by H. V. Evatt outlining the Commonwealth's case for the planned development of resources to meet economic equality, security and full employment objectives:

When the war is over, Australia will be confronted with the greatest task of economic rehabilitation in her history....The whole history of the Commonwealth Constitution shows that these problems cannot be solved without wider powers in the hands of the central Government.⁴⁴

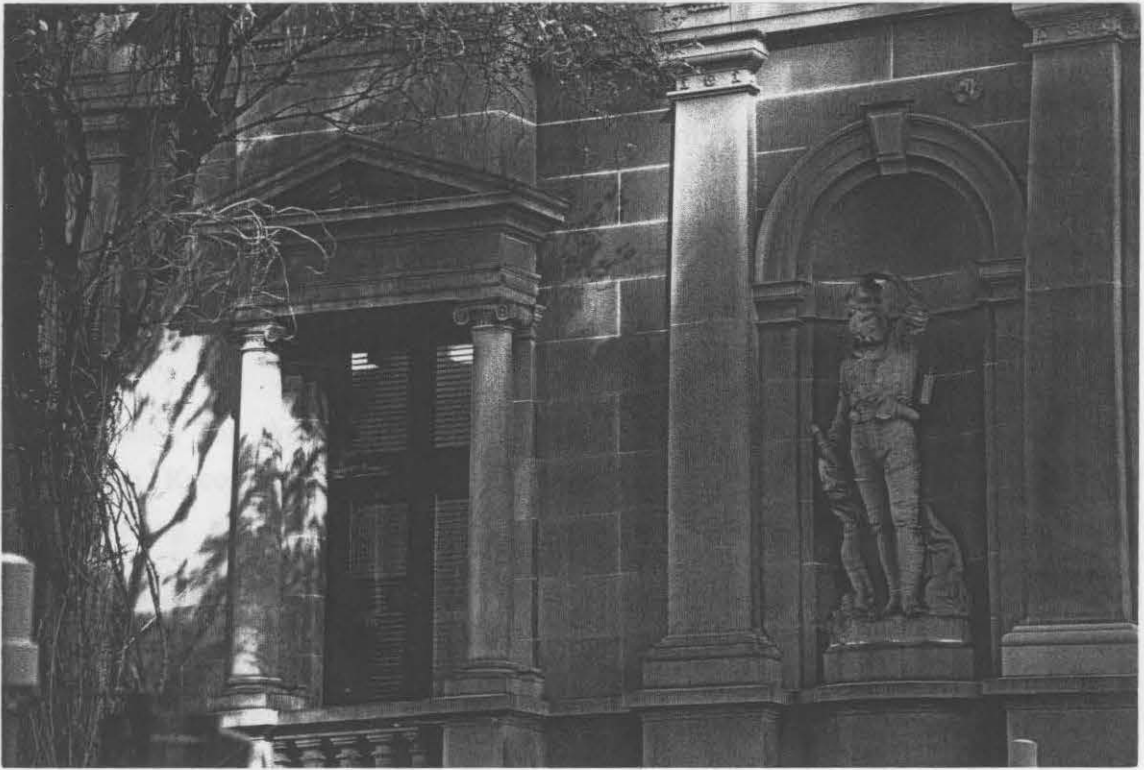
The simple dichotomy was that it was either "plan or no plan? plan or chaos?...do we leave it to the blind forces of economic anarchy?"⁴⁵ With the continuing shortages of material and labour in the post-war period, this "represents one of the most significant reasons for an integrated plan for all government, semi-governmental and local public works."⁴⁶ It would also be a defensive measure as development was intimately enmeshed with the need to populate the continent, to ward-off potential aggressors. It was,

⁴⁴. Evatt, H. V., *Post-War Reconstruction. A Case For Greater Commonwealth Powers*, Canberra, Govt. Printer, 1942, p. 116.

⁴⁵. *Ibid*, p. 7

⁴⁶. *Ibid*, p. 59.

Figures 6 & 7; Facade and figure (Stuart), old Lands Department Building, Bridge Street, Sydney and photo of McKell on Tractor, from ALP, *Five Critical Years*, Sydney, the ALP, 1946.



PREMIER DRIVING TRACTOR INAUGURATING THE FIRST DEMONSTRATION IN THE GREAT NEW FARM MECHANISATION SCHEME

as earlier enthusiasts for inter-basin diversion projects had been advocating, necessary to "develop the physical resources of Australia in order to help support a larger and more prosperous population."⁴⁷

Regionalism could also give effect to social priorities. It could re-distribute development through the cultured environ of a 'natural economic region' enabling regional employment; "the just claims of relatively neglected areas must also be considered."⁴⁸ The new powers sought covered power projects, irrigation schemes, improved transport and other services such that "when private spending fails to employ all available workers, the Government must step in and ensure their employment."⁴⁹

Boldly planning for the future, the Director General of the new Ministry for Post War Reconstruction, H. C. ("Nugget") Coombs, saw technological decision making as passing through a period in which more intensely democratic orientations were gaining priority. In response to the ideas of writers as diverse as Mumford, Frank Lloyd Wright, the Griffins, William Morris and Kropotkin, the bureaucratic and political leaders were hopeful that "human communities could, by corporate action, shape the context in which the lives of their members were to be lived."⁵⁰ Similarly, for Coombs, echoing Mumford, many voters were also recognising "the intrinsic character" of their regions and were "dreaming dreams of development which would bring out that character in more distinctive ways." The precedent of the TVA had stimulated a "flood" of literature about planning "for large areas with a common ecological basis" and increased awareness of how "the potential of modern technology could be placed at the disposal of communities..."⁵¹ They were halcyon days for the new planners as they contemplated local control and ecologically responsive proposals.

Hopes for politically open planning and for 'order' against a Constitution preventing the Commonwealth from co-ordinating outcomes arose (figure 8). Douglas Dundas yearned for idealised, co-operative, masculine certainty and calm. Together, scientists and workers can avoid the disasters of recurring recessions, can transcend their political polarities. Between the

⁴⁷. Ibid, p. 86.

⁴⁸. Ibid, p. 70.

⁴⁹. Ibid, p. 58.

⁵⁰. Coombs, H. C., *Trial Balance*, Melbourne, Macmillan, 1981, p. 60.

⁵¹. Ibid, p. 59-60.

Figure 8; Painting, Dundas, Douglas, "Science and Industry", reproduced in *Australia To-Day*, 30/10/43, p. 58.



"Science and Industry"—by Douglas Dundas. This is the first of a series of paintings symbolising Australia's coming peacetime prosperity and happiness commissioned by *Stewarts and Lloyds (Aust.) Pty. Ltd.*

What will be your first job after the war?

Find us the soldier or civilian who isn't building a home, driving a new car, or taking a long, lazy holiday . . . every time he starts thinking about "after the war."

Whether or not that Australian gets what he is fighting for depends on more than Victory.

It depends upon the job that Australian industry gets after the war . . . and Australian industry will have to make its own job and make it quickly.

We will have to beat tanks into tractors, shells into tubes. Field telephones will give way to home television sets on the assembly lines. There will be private planes in backyard garages, washing machines in every laundry.

Australians will be producing all of these things for their own good, producing them in plenty.

Such a time must surely come. Whether it comes sooner or later depends upon two factors. These two factors are resourcefulness and courage.

This war has shown that we've got them both.

We didn't wait for Government subsidies, or even the war itself for that matter, before we found a way to make shell bodies that was as easy as making tubes. Shell bodies were rolling off our production lines as soon as the guns started firing.

What we've done for war we can do for a peaceful way of life, too. After all, that's what we're fighting for.

Some millions of Australians will have to find jobs when the fighting is over. Many public bodies will assert responsibility for solving this problem.

Only quick, practical action can solve it—and that action must come from the industries of Australia.

Stewarts and Lloyds

(Australia) Pty. Ltd.

death masks of war and the smoking chimneys of peace, the new technologists emerge as a brotherly priesthood to prepare the ground for the large projects.⁵² Yet, at this moment of infinite stillness, in the new dawn of a post-war 'scientific mankind', a strong sense of a narrow, scientific rule, also emerges. The burgeoning role of a large administrative class is captured in Dundas' image of the scientist-manager, celebrated with metaphors of fact.

Because of the growing Commonwealth role over planning as well as because of their alternative proposal, deputations from the Southern Tablelands as well as from East Gippsland were not just seeking facts. They were preparing to lobby the Commonwealth. The Treasurer, Chifley, then pushed the Commonwealth's role in national development. Under a Commission appointed to "examine national works throughout Australia", Chifley assured the Snowy River Shire representatives that he would "arrange for the programme set out by the Shire of Snowy River to be fully examined and reported upon by the Commission in due course."⁵³ Less than one month later, in March 1943, as the Department of Post War Reconstruction and national works priorities were being formed, there came an announcement that the Commonwealth had decided to consider the Snowy Scheme as a possible post-war project.

In July 1943, the National Works Council was established. In line with his expressed intent to the Snowy River League, the Snowy Scheme was already on the list, Chifley having requested that the Co-ordinator General of Works take up the matter "for discussion with the appropriate State authorities."⁵⁴ The Prime Minister, Curtin, had written to the Premiers as well. In line with the river basin or 'multipurpose' context for such development, he had written on the use of regionalism as a means of co-ordinating public works. In particular, the Commonwealth sought a strategic link with the regional bodies, "a direct link with their activities." This, however, could undercut the power of the States.⁵⁵ Indeed, the

⁵². Rowse, T., *Australian Liberalism and National Character*, Melbourne, Kibble Books, 1978, p. 174.

⁵³. Chifley to Perkins, 22/2/43, and related letters, NAA: MP831, 1955/714 Part 1 (file 6/9), *Snowy River Hydro Electric Development*.

⁵⁴. Lewis, R. B., *Development of the Snowy River Scheme*, Canberra, The Department of Works and Housing, 1971, p. 6.

⁵⁵. Australia. Commonwealth Department of Post-War Reconstruction (in conjunction with State Departments responsible for Regional Planning), *Regional Planning in*

conference between Commonwealth and States Officers of the 30th of March 1944, held in preparation for the forthcoming Premiers' Conference, saw the States put up great resistance to the idea of expanded Commonwealth control via regionalism. The States sought to prevent the Commonwealth from having direct contact with regional bodies. The conference came to a tentative conclusion that "[regional] committees could act in a planning and advisory capacity only."⁵⁶

Meanwhile, in the previous December (1943), a New South Wales Water Conservation and Soil Conservation Advisory Committee had reported. Formulated by Commissioners Evatt and Rawlings of the WC&IC and its Chief Engineer, Brewster, with the Director of the Soil Conservation Service, Sam Clayton, the report on water conservation and irrigation elaborated the plan for the long term development of the State.⁵⁷ The report also favoured putting into effect the recommendations of a 1939 Interstate Conference on Water Conservation and Irrigation, that is, to seek priority for water supply⁵⁸, and to co-operate with the Commonwealth for funding. It also sought, following local and American practice, the (federal) subsidy of construction costs.⁵⁹ In particular, if water conservation schemes could be installed as planned, much greater flows could be conserved for full utilisation along the Murrumbidgee as well. Brewster had produced an integrated set of schemes to make more water available along the length of many inland rivers (figure 9) but especially for the Murrumbidgee Irrigation Area. Again, the proposed diversion of the Snowy to the Murrumbidgee would be the icing on the cake for irrigation farmers and the Commission.

Across the Murray, in the relatively closely settled Victoria, thoughts were also turning to post-war reconstruction possibilities. Irrigation was always an option--especially with a Country Party in power. But others were also mindful of the huge reserves of lignite, a low grade of (brown) coal, which had been the basis of the State Electricity Commission of Victoria's (SECV),

Australia; A History of Progress and Review of Regional Planning Activities through the Commonwealth, Canberra, Govt. Printer, 1949, p. 1.

⁵⁶. Ibid.

⁵⁷. NSW Premier's Department. Ministry of Post War Reconstruction. Water and Soil Conservation Advisory Committee, *Water Conservation and Irrigation* [Unpublished Report], Sydney, Premier's Dept., Dec. 1943, Part 2, p. 2, SRNSW: 18/1588, Box 68, 43/15449, *Water Conservation Advisory Committee. Report of the Committee.*

⁵⁸. Ibid, Part 1, p. 3.

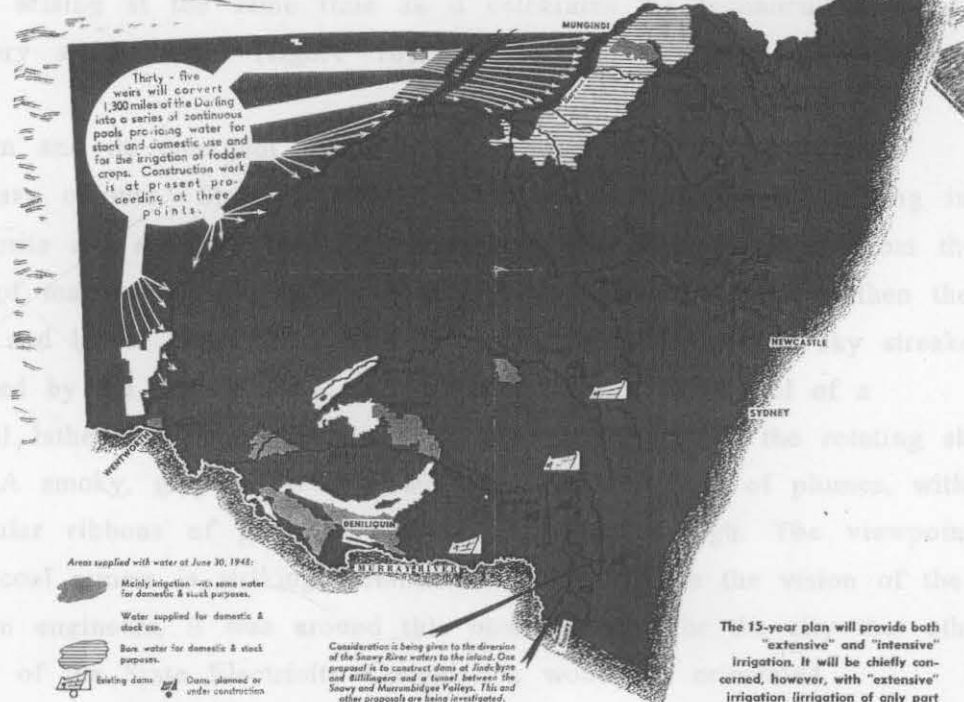
⁵⁹. Ibid, Part 3, p. 2.

Figure 9; Poster, "Watering the Thirsty Land", Discussion Poster No. 22, Commonwealth Office of Education, 1948. From SRNSW, Department of Water Resources, 18/1614, Box 94, File 48/17797.

WATERING THE THIRSTY INLAND

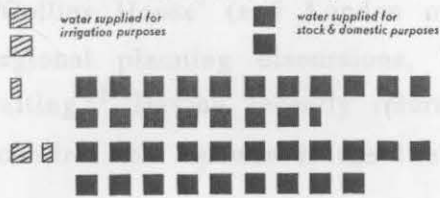
STATE Achievements 6

Water conservation and irrigation in N.S.W. has already paid big dividends in areas bordering the Murray, Murrumbidgee and Lachlan rivers. Now the N.S.W. Government is implementing a new 15-year water plan to cost £30 million. Existing water storages and distribution channels are being extended, 18 dams and storages will be built on coastal and inland rivers and 35 weirs erected on the Darling.



WHAT THE 15-YEAR PLAN WILL MEAN TO N.S.W.

Each square represents a million acres—red denoting existing acreage, black showing what will be added to this area under the 15-year plan.



The 15-year plan will provide both "extensive" and "intensive" irrigation. It will be chiefly concerned, however, with "extensive" irrigation (irrigation of only part of a holding for fodder crops, pastures etc., including supplies for domestic and stock purposes) rather than "intensive" irrigation (fruit trees, vines and other horticulture).

N.S.W. has little water relative to its huge land area—an important reason why available supplies should be used to the fullest advantage. What major arguments are there in favor of "extensive" rather than "intensive" use of the State's water resources?

SIEMONS LTD., GLBE, SYDNEY

Published by the Commonwealth Office of Education, Grace Building, York Street, Sydney—November, 15, 1948.

development in the La Trobe Valley. For the last 20 years, the 'Monash Plan' to establish a brown-coal fired grid across the State, through the work of the State Electricity Commission, was pushing forward. After being backed by the loose but influential Melbourne based 'Collins House' mining thence financial group, his plan had become a major technocultural article of faith for many Victorians. Unlike the disordered social and industrial development of many of the coal fields of New South Wales, the plan included the beautiful civic amenity of a well-planned garden town, Yallourn. Whilst advancing worker's amenities, as well as agriculture through the electrification of the country side, the SECV had come to form a major part of Victoria's identity as a modernising, manufacturing State as it underwrote industrialisation. As such, it was celebrated by Ethel Spowers in the early 1930s.⁶⁰ Her lino cut offers a wonderful evocation of the significance of the undertaking by sensitively evoking the turmoil of the change arising at the same time as it celebrates the technocultural trajectory symbolically (figure 10).

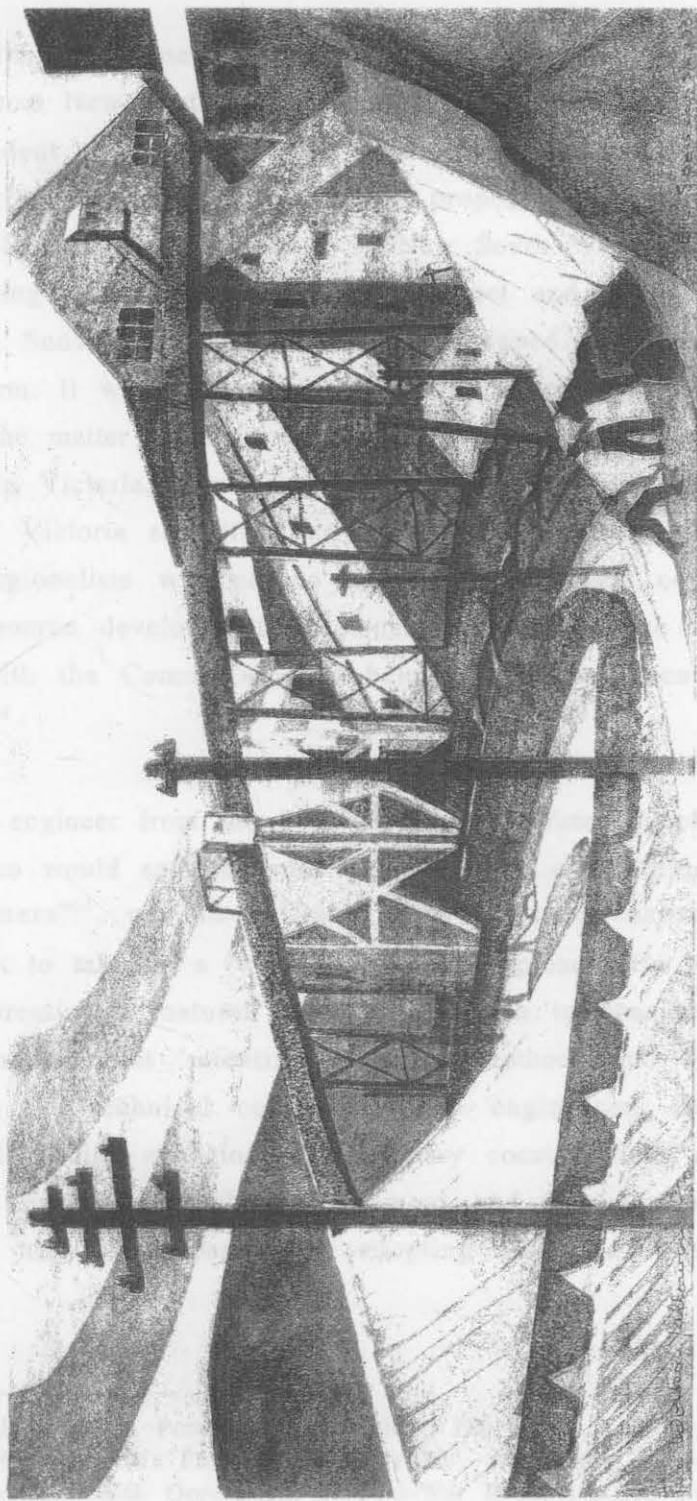
Yallourn and its emergent power stations are evoked through bold, 'secondary colours.' Streaks of damp, freshly mined coal, engineering ink and lignite ash seem to turn and transmute through each other. From the swirls of machined earth, from the open cut, the coal trains and then the bunker and boiler house roofs arise a newly machined sky. A sky streaked or gashed by the factory roofs, as if they form the cutting tool of a powerful lathe slowly building up from the earth to mark the rotating sky above. A smoky, grey-yellow sky, with its perpetual band of plumes, with its regular ribbons of progress festooned forever on-high. The viewpoint of the coal miners is strikingly embodied. In contrast to the vision of the irrigation engineers, it was around this bowl of coal for the city that other projects of the State Electricity Commission would be orientated.

Indeed, for George H. Johnston, writing a special four part series in the conservative, 'Collins House' (and London owned) *Argus* on the eve of the forthcoming regional planning discussions, Victoria (again) had a "Vision Splendid" awaiting.⁶¹ Having recently returned from the United States, he had come to confirm that "power is the lifeblood of modern progress, the

⁶⁰. Spowers, Ethel, "The Works, Yallourn" (1933), linocut reproduced in Thomas, D., *Outlines of Australian Art. The Joseph Brown Collection*, New York, Abrams, 1989 (third ed.), plate 164.

⁶¹. Johnston, G. H., "Victoria's 'Vision Splendid'", *The Argus*, 4/2/44, p. 2.

Figure 10; Linocut by Ethel Spowers, "The Works, Yallourn" (1933), reproduced in Thomas, D., *Outlines of Australian Art. The Joseph Brown Collection*, New York, Abrams, 1989 (third ed.), plate 164.



41. Johnson, G. ...
 42. Johnson, G. ...
 43. Australian Commission on ...
 with State Departments responsible for Regional Planning, op. cit., p. 57-61.
 44. Powell, J. M., *The Emergence of Regionalism in the Murray Darling Basin*, Canberra, Murray Darling Basin Commission, 1993, p. 75.

yardstick of industrial advancement" and sought to map out a "vision of Victoria's future in terms of power development."⁶² It was thus electric power that should come to underwrite what promised to be the focal point for secondary industry in Australia; "it is not idle fancy to visualise a State leading the rest of Australia in secondary industry development."⁶³

Crucially, lignite development was also a means of securing energy independence from New South Wales' supplies of coal; it was "a vision...independent of outside power producing agents." In explicit opposition to the Murrumbidgee diversion proposal, therefore, and against the communist-led coal miners' unions of New South Wales still battling a legacy of mining speculation, community neglect and exploitation, the run-of-the-river Snowy Scheme should be developed to enhance Victoria's electricity system. It would provide a reserve or even peak supply. Similarly, on the matter of the procedures to be adopted to achieve post-war reconstruction in Victoria, it was made clear from the first that the State Government of Victoria saw itself as having the prime responsibility. Specifically, regionalism was not to undercut State-based constitutional rights over resource development. Regional committees were not to usurp or outflank, with the Commonwealth's help, State Government prerogatives.⁶⁴

Tom Lang, an engineer from the State Rivers and Water Supply Commission of Victoria, who would soon become "probably, the most influential of regional planners"⁶⁵, was also offering ideas about regionalism. Lang was one of the first to take up a 'whole catchment' approach. He began, however, by stressing a 'natural basis' upon which to consider regions. Consistent with emergent 'scientific' planning methods and by relying primarily upon US technical commission and engineering literature, when Lang set out to define a region, "the primary considerations are generally physiographic." Further, "in the development and management of natural resources there are sound reasons for adopting a regional basis rather

⁶². Johnston, G. H., "Power, Posterity and Politics", *The Argus*, 1/2/44, p. 3.

⁶³. Johnson, G. H., "Victoria's Endless Power Wealth", *The Argus*, 3/2/44, p. 2.

⁶⁴. Australia. Commonwealth Department of Post-War Reconstruction (in conjunction with State Departments responsible for Regional Planning), op. cit., p. 60-61.

⁶⁵. Powell, J. M., *The Emergence of Bioregionalism in the Murray Darling Basin*, Canberra, Murray Darling Basin Commission, 1993, p. 70.

than a political one."⁶⁶ This took-up ideas of regionalism 'allied with nature' but this separation, this tendency to emphasise a 'physically determinate' basis missed much of the thoroughgoing interdisciplinary-- and political--emphases of Mumford, for example. Accordingly, even though local participation and governments were needed, they were to co-ordinate a scientifically determined planning process which was "the cold, rational and logical process of co-ordinating physical facts by means of technical skill or mechanical means to achieve certain ends."⁶⁷ Lang, therefore, favoured autocratic expertise or the "re-education of the people who will benefit from the plan, so that they may accept and use every good thing the plan has to offer them."⁶⁸ As with Gibson, the expert is regarded as apolitical and hence the servant of an apparently singular or determinate trajectory of development. He expected the same attitude of others. Instead of values being co-joint with catchment management, informing method and research agendas, a technocratic rationale and power base sought to set the agenda.

Lang's vision of the futuristic prospects of a 'well planned' river basin region, was represented in terms that evoked an administrative ideal for the technocrat (figure 11). Drawing upon US Bureau of Reclamation images depicting irrigated oases, Lang foregrounded technological transformation. A trans-mountain diversion tunnel fed a plentiful, multiple purpose reservoir which, in turn, fed agriculture, power production, town water supplies and etcetera. An apparent harmony of mutual purpose arose between normally competing land-use options. An idyllic, 'unencumbered', civil engineered terrain, perhaps even a 'train set' sort of landscape, was staged to suggest a planning wonderland, offering a purity of co-existent technological possibilities. A civil engineered 'Eden' of order and harmony was projected as a way of arguing for a more modern landscape.

Further, because it was such a 'bright and shiny' landscape, it is blinding to what was being concealed. It involved a denial that 'science only' catchment management was re-introducing dominant cultural values across the land. What was revealed was mainly more of the same; "Full

⁶⁶. Lang, T. A., *Regional Planning of Natural Resources*, Melbourne, SR&WSC, 1942, p. 6.

⁶⁷. *Ibid*, p. 1.

⁶⁸. Lang, T. A., *Organisation for Planning*, Melbourne, SR&WSC, 1944, p. 4.

Figure 11; Landscape graphic, Tom Lang's idealised civil engineering terrain (circa mid to late 1940s) from Powell, J. M., *The Emergence of Bioregionalism in the Murray Darling Basin*, Canberra, The Murray Darling Basin Commission, 1993, p. 70.



...the Murray Valley was seeking to win the day by appearing to act above politics, by arguing according to the emergent, administrative criteria alone.

Nevertheless, each an approach began with strong purpose in the Murray Valley and, of course, with implicit political and constitutional aims. Collapsing, the Albury Council Secretary, came to favour a challenge to the

¹⁴ M. V. L. The Work of the Murray Valley Development League, Albury, The League, 1937, p. 1.

¹⁵ P. J. ... Member for Albury, in New South Wales, *Parliamentary Debates*, Sydney, Government Printer, 1947, Vol. 145, 21/90/47, p. 184.

¹⁶ W. ... D. J. ... Member for Northern Province, in Victoria, *Parliamentary Debates*, Melbourne, Government Printer, 1949, Vol. 228, p. 102.

Utilisation" as the caption announced, writ larger, inscribed more completely. As with Dundas, paradoxical 'metaphors of fact' or metaphors of technological autonomy were crafted to secure greater scope for this sort of engineering expertise as well as for its apparently neutral and hence often unacknowledged assumptions. An 'avant-garde', 'whole catchment' approach, denuded of cultural informing criteria whilst foregrounding technological possibilities, merely introduces a means of expanding systems and displaces the interpretation of regional differences and potentialities.

In the interregnum between the Commonwealth advancing an active role for the regions as a way of influencing the decisions of State Governments and the loss of the Powers Referendum in August 1944, local groups, especially around the Australian Alps, moved to take up regionalist approaches. In particular, the cross border Murray Valley Development League was formed during 1944. From the very first, however, the major legitimating resource for such approaches was less the 'organic' argument of Mumford than the 'age of the machine' outlook of Veblen. Indeed, this approach, outlined by Lilienthal in his *Democracy on the March*, was published just as the Murray Valley Development League was getting underway. Eschewing politics and emphasising co-ordinated decision making; "the League has never adopted the methods of the old fashioned pressure groups."⁶⁹ The Murray Valley's representative, Padman, would come in 1947 to ask for a board of inquiry into development possibilities, "a complete and impartial investigation...to do away with the evils of divided control."⁷⁰ Accordingly, "there was no agitation by those who were interested in the Murray Valley Scheme."⁷¹ That is, in contrast to the Murrumbidgee lobby especially, the Murray Valley was seeking to win the day by appearing to act above politics, by arguing according to the emergent, administrative criteria alone.

Nevertheless, such an approach began with strong purpose in the Murray Valley and, of course, with implicit political and constitutional aims. Collings, the Albury Council Secretary, came to favour a challenge to the

⁶⁹. MVDL, *The Work of the Murray Valley Development League*, Albury?, The League, 1959, p. 5.

⁷⁰. Padman, Member for Albury, in New South Wales, *Parliamentary Debates*, Sydney, Government Printer, 1947, Vol. 185, 21/10/47, p. 184.

⁷¹. Walters., D. J., Member for Northern Province, in Victoria, *Parliamentary Debates*, Melbourne, Government Printer, 1949, Vol. 229, p. 107.

State Government's proposals for regional development. In a report to his Council on the Regional Planning Committee's proposals, Collings suggested, instead, a cross border survey as "the State Committee is not in a position to thoroughly survey the possibilities of its development by reason of the limitation placed upon its activities by the State boundary."⁷² He therefore asked the Regional Boundaries Committee of New South Wales to recommend to the appropriate Federal Minister that a special, interstate survey be set up to report on the potentialities of the Murray Valley.⁷³ Even before the possible diversion of the Snowy to the Murray was conceived, the vying potentials of the river valleys, and who would control them, was a hot issue.

Regionalism was central at the formal inaugural meeting of the Murray Valley Development League, convened by the Albury Council and held at Yarrawonga in mid August 1944. With 250 delegates from local councils and progress associations plus farmers' producer associations in attendance along with representatives from Federal and State parliaments, government departments and from the press and business, much interest arose. The goal was a special planning committee to co-ordinate development within the 'Murray Valley Basin', like a TVA. In a significant conjuncture, the meeting had been called on the eve of the 'Powers' referendum. It was a final venue for the Commonwealth to argue its case for centralised powers--or a re-figured Federalism--to a region that stood to gain significantly from a positive outcome.⁷⁴

The conference endorsed a principal resolution consistent with the Commonwealth Government's agenda on regional development. It wished to establish an inquiry and audit possibilities for developing the valley "in all its economic, cultural and social and defence aspects..."⁷⁵ Consistent with the broader aims of 'post-war' nation building, it had the ultimate goal of achieving a population of one million people in the valley. On the 19th of

⁷². "Murray Valley Development: Formation of League Proposed", *The Border Morning Mail*, 22/2/44, p. 4.

⁷³. Letter from Collings, Town Clerk, Albury, to Hartnett, Executive Officer, NSW Regional Boundaries Committee, 4/2/44, Albury City Council Archives, file 216. Also see "Post-War Development: Albury Town Clerk's Comments", *The Border Morning Mail*, 3/2/44, p. 5.

⁷⁴. "Big Future For Valley Is Forecast", *The Border Morning Mail*, 16/8/44, p. 4.

⁷⁵. "Vital Recommendations Are Adopted By Murray Development League", *The Border Morning Mail*, 17/8/44, p. 4.

August 1944, however, the referendum proposals were rejected by a Commonwealth-wide majority and by a majority of States.

This was a further blow for indigenous 'New Deal' hopes which had arisen over the last decade. Since the mid 1930s William Cooper, who was a major force in the formation of the Australian Aborigines League, believed that precedents from the United States were worthy of emulation.⁷⁶ Cooper was also proposing an extension of reserve lands available to Aborigines, arguing that they should be farmed on a community basis, with profits returning to the community. The Aborigines Protection Board dismissed his views, and little came of them. Cooper persisted with more limited demands, focussing instead on the availability of water to support Cumeragunga.⁷⁷ Due to un-maintained pumping equipment, this station near Echuca, on the Murray, was deprived of a good water supply. Even as its Aboriginal population had been swollen by Depression, its lands were also being leased out.

By May 1937, the Aborigines Protection Board under pressure from Cooper agreed to further investigate the proposal but within government circles it was believed that Aborigines would either die out or be absorbed into the white mainstream.⁷⁸ Cooper continued his (in part) US-inspired efforts by organising a symbolic 'day of action'. To coincide with the 150th anniversary of the landing of the first fleet, and after a disappointing Select Committee of Inquiry on the Administration of the Aborigines Protection Board, John Patten as President and William Ferguson as Secretary and founder of the Aborigines Progressive Association published a pamphlet; *Aborigines Claim Citizen Rights!*⁷⁹ The pamphlet announced that on the anniversary day itself, the 26th of January, a public meeting would be called as a "day of mourning." The need for economic equality and access to land and economic opportunity were discussed, with Ferguson suggesting that "the government could at least make land grants to Aborigines..."⁸⁰

⁷⁶. Goodall, op. cit., p. 189.

⁷⁷. Ibid, p. 190.

⁷⁸. Conference of Commonwealth and State Aboriginal Authorities, April 1937, p. 3, quoted in Reynolds, Henry, *Dispossession: Black Australians and White Invaders*, Sydney, Allen and Unwin, 1989, p. 207.

⁷⁹. Horner, J., *Vote Ferguson for Aboriginal Freedom*, Sydney, Australian and New Zealand Book Company, 1974, p. 56-7.

⁸⁰. Horner, J. and Langton, M., "The Day of Mourning" in Gammage, Bill and Spearritt, Peter, *Australians 1938*, Sydney, Fairfax, Syme and Weldon, 1987, p. 31.

Victorian and New South Wales governments continued to ignore the dire plight of station residents. Walking off their land at Cumeragunga and then refusing to work on the station attracted unprecedented press attention.⁸¹

In June 1939, the Board conceded that "the station is capable of development by irrigation." It also contemplated "the provision in the future, of small farmlets for deserving families."⁸² Public concern also hastened "the reconstitution of the Board as an 'Aborigines Welfare Board' under an amended act in 1940"⁸³, although with dubious results.

With the McKell Labor government having come to power in New South Wales in May 1941, Ferguson and his Association were looking for substantial policy changes. Although Ferguson's address to the June conference of the Party was left until the last session of the conference, he won applause for his appeal that "if there is a new deal coming, we want to share in it."⁸⁴ Michael Sawtell, an AWU organiser who had long supported Aboriginal causes and assisted them organise and agitate, was able to provide some support within the Labor Party. Sawtell, an intellectual and socialist who had also advocated, like Bradfield, a well watered inland, was President of the Committee for Aboriginal Citizen Rights, a group of concerned white people drawn from union, women's, church and welfare organisation to support Aboriginal reform. The Committee became "a weak 'fringe' association of the Australian Labor Party." Only those of the left in the New South Wales Trades and Labour Council were sympathetic and active.⁸⁵

This group, along with the emerging activist William Onus, recently appointed as Secretary of the Association by Ferguson, lobbied the Labor Party for citizen rights for Aborigines and for elected Aboriginal representatives to be on the Welfare Board. Assimilation was the blanket response, however. Even as Ferguson and Walter Page were elected to the board as Aboriginal representatives (joining Elkin and Sawtell) in November 1943, assimilation remained the predominant approach. Within the Board "a concept of welfare for the Aborigines called 'Preparation for

⁸¹. Barwick, Dianne, "Coranderrk and Cumeragunga: Pioneers and Policy", in Pennay, D. H. and Epstein, T. S., *Opportunity and Response: Case Studies in Economic Development*, London, Hurst, 1972, p. 63.

⁸². The Board's 1939 report quoted in Barwick, Dianne, *ibid.*

⁸³. *Ibid.*, p. 6

⁸⁴. Horner, 1974, *op. cit.*, p. 103

⁸⁵. *Ibid.*, p. 115.

Citizenship' took shape."⁸⁶ Rather than developing the reserves, this often meant that, after 1943, the Board would "make no repairs or improvements, to let all the buildings and amenities run down until at last any alternative living arrangements away from the reserves would have to be welcome."⁸⁷ Domestic and living conditions on the Brungle reserve, for example, 30 kilometres from Tumut, deteriorated dramatically; "370 acres of good land had not been touched for four years because the Board had removed all the pumping and farm machinery...and in the lucerne paddock rotted a thousand bale crop which the Board had refused to harvest."⁸⁸ The "same technique was surreptitiously applied to other Wiradjuri reserves."⁸⁹ Aborigines were systematically denied the funds and equipment to develop their reserve lands even according to European styles of farming.

By March 1943, however, the Commonwealth Powers Bill proposed that the States pass powers over Aboriginal affairs to the Commonwealth. As Price, the member for Boothby in a House of Representatives debate in March, 1943, put it, "apparently, although certain Parliaments are not prepared to transfer some of the powers that have been sought, all of them are prepared to transfer power over the Australian aborigines."⁹⁰ If the Commonwealth government assumed some of the responsibilities for Aborigines, then it should "give them a new deal, such as President Roosevelt has given to the Indians of the United States of America."⁹¹ This would be to raise the standing or understanding and material well being of Aborigines by providing "scientific treatment and the right kind of employment"⁹² even if this often meant working for the cattle industry--sustaining it--for very cheap wages. The States, however, withdrew support for the Bill and, as mentioned, the 'Powers' referendum was lost in August 1944. As Evatt had demanded that it be all or nothing, the provision that would have allowed greater Commonwealth assistance for Aborigines and full citizenship rights was also lost. As the farmer settler regions of the Murray Darling Basin were being defined, developed and mightily fought over as the primary site of a new, post-war federalism emerged, issues such

⁸⁶. Ibid, p. 129.

⁸⁷. Read, Peter, *A Hundred Years War: The Wiradjuri People and the State*, Canberra, Australian National University Press, 1988, p. 101.

⁸⁸. Ibid, p. 102.

⁸⁹. Ibid.

⁹⁰. Price, Dr. A. G, quoted from "Extract from House of Representatives Debate, 12th of March, 1943", p. 1, NAA: A461, A300/1 Part 3, *Aboriginals - Policy*.

⁹¹. Ibid, p. 3.

⁹². Ibid, p. 4.

as granting indigenous lands and reinvigorating their cultural relations to place receded into the background. These matters would remain for many years the province of the States.

With the loss of the referendum, many issues had apparently been resolved from the State's points of view. To return to the efforts of New South Wales, it was soon publishing a report into the diversion of the Snowy to the Murrumbidgee, as well as forming a central electricity commission. As mentioned, it was moving on with developing a state-based TVA-ism or a State controlled regionalism. Most spectacularly, the WC&IC plans for the use of the diverted water to the Murrumbidgee proposed a doubling of output of the MIA plus further irrigation and stock water supply development. It was anticipated that a further 50,000 people could be supported.

The committee concluded that the figures supplied by the WC&IC on the prospects for further irrigation development "establishes a very strong claim to the waters of the Snowy River for this purpose."⁹³ The Committee saw no reason to disagree with the sympathetic assessment made by the Electric Advisory Committee that electricity costs would be the same if generation occurred at either steam generation or Snowy hydro stations.⁹⁴ The regional use of the power available from the Snowy River, for the South-east of New South Wales and East Gippsland regions, even with future development, was also now to be met "by the lesser hydro-electric development associated with the use of the Snowy River waters for irrigation and water supply."⁹⁵ This Murrumbidgee diversion option, as it offered some minor hydro development (of 50 megawatts), also sought to assuage the fears of the south eastern part of the State. It would also negate, according to the Committee, the Commonwealth's need to develop the Snowy for hydro-electric power. The Committee also recommended that New South Wales seek termination of its now long standing Seat of Government Acceptance Act agreement with the Commonwealth which gave the Commonwealth rights to control the Snowy River resource for power supply for the ACT.

⁹³. New South Wales Parliament, *Report of the Snowy River Investigation Committee on the Utilisation of the Waters of the Snowy River*, Sydney, Govt. Printer, 1944, p. 31.

⁹⁴. Ibid, p. 49-50.

⁹⁵. Ibid, p. 50.

With a partial return to a more State-based focus for resource development, an extensive public relations campaign for a generalised, unspecified water 'conservation' development was then launched in the *Sydney Morning Herald*. In the editorial pages from mid November, to coincide with the tabling of the inland diverting Snowy Scheme report, the *Herald* ran letters to the editor that re-invoked Bradfield's scheme on the back of Idriess' recently published book, *Onward Australia; Developing a Continent*. Indeed, Timbury's *The Battle for the Inland* had also just been published and sought to fire enthusiasm for huge water conservation projects and, again, for these re-diversion 'boomerangs', these:

fighting boomerangs--with their leading edges facing north, the direction in which danger lies for Australia. Behind those two boomerangs we have a chance to fill our two great basins [the Eyre and now also the Murray-Darling] with white defenders, but the time may be short and we have to hurry.⁹⁶

Then, after one letter to the editor by an experienced engineer that challenged Bradfield's proposals, many followed in great support. According to a familiar refrain, MacKee linked the war effort to that now needed to nation build:

Whether we fight nature or human aggressors, the methods are precisely the same. There must be a grand strategy, the establishment of salients, the enlargement of bridgeheads, the general advance. There will be counter-attacks to repulse. There will be setbacks. But we must fight with grim determination, relentless vigour, and the stout hearts of fighting men. Dr. Bradfield's scheme appeals as an instalment of the grand strategy which, with other projects of engineers, scientists, reforestation, and plant experts, should comprise the attack upon the enemy and the beginning of the development of Australia upon a scale which will make our country great.⁹⁷

Then followed the formal beginning to the *Herald's* campaign with a series of special articles and sketches that called for a national emphasis upon irrigation and water conservation projects, as a 'national' priority. The

⁹⁶. Timbury, F. R. V., *The Battle for the Inland*, Sydney, Angus and Robertson, 1944, p. 50.

⁹⁷. MacKee, Jas. G., "Water For Inland" [Letters to the Editor], *SMH*, 27/11/44, p. 2.

editorial itself of the 2nd of December gave voice to "The Cry For Water" implicitly arguing for a New South Wales design for the Snowy Scheme; "the drought has already demonstrated beyond all doubt that water is our greatest need."⁹⁸

Against Bradfield, however, the articles by the Professor of Geography, Griffith Taylor, warned that the arid terrain--the Eyre Basin--"cannot be used for important human settlement."⁹⁹ Taylor was also sceptical of the scope available for significant population increases. Nevertheless, in the main feature articles by Newman, semi arid parts of Murray Darling Basin were still suitable for renewal. Accompanying these articles, in a public relations coup, was a series of sketches by Russell Drysdale poignantly depicting the drought in the Western Division for the readers of the *Sydney Morning Herald*. Drysdale responded in sympathy with Newman's descriptions of the drought. He responded with sketches of sensitive if harrowing landscapes of forlorn and grotesque forms of denuded trunks, erosion-exposed roots, and the bleached ribs of beached carcasses, all under a dust-laden sky (figures 12 to 16).

He sketched an upturned, surreal waste land where life could do little but cling to what remained of the soil, where the hapless inhabitants adopted a vacant stare. Where, as Newman commented by way of a particularly Drysdalesque metaphor, "the windows of the houses are like black sockets whose eyes have perished with despair."¹⁰⁰ Nevertheless, the farmers were determined to win out; "like the trees that some of them are planting, they are on the land to stay."¹⁰¹ But this would require solving "the riddle of the sands" to find the reasons behind the erosion of large tracts of territory amongst the possible causes of lack of water, rabbits, over-stocking or soil chemistry.¹⁰² Even amongst the eroding land, however, there was hope. The cycle of severe drought had coincided with efforts to dam or divert water to the inland and for an attack on such problems of a wasting landscape. There was, as the articles headline explained, an "Urgent Need for Scientific Assault."¹⁰³

⁹⁸. "The Cry For Water" [Editorial], *SMH* 2/12/44, p. 2.

⁹⁹. Griffith Taylor, "Australia's Barren Spaces", *SMH*, 16/12/44, p. 8.

¹⁰⁰. Newman, K., "An Artist's Journey Into Australia's 'Lost World'", *SMH*, 16/12/44, p. 5.

¹⁰¹. Newman, K., "Country Transformed by Water", *SMH*, 20/12/44, p. 7.

¹⁰². Newman, K., "Riddle of the Sands", *SMH*, 19/12/44, p. 5.

¹⁰³. *Ibid.*

A New South Wales, nationalist-agrarian mythology was being reinvented and under-written by this kind of journalism, just as electricity was represented by *The Argus* for Victoria in the previous February. And now these agrarian metaphors acquired surrealist tones. Its 'Western Division', as the headlines also represented, were "Australia's 'Lost World'", or "Australia's Barren Spaces." *These* were the places that had suffered due to the national war effort's food production program. As a dust bowl for *this* nation, they now required national action, a national priority. Indeed, such a restatement of a dominating view of national identity as being rural, dry and dusty *and* as a priority for relief suited many in Sydney. It suited especially the engineers and their plans for water conservation along the Darling, along the Murrumbidgee, along the Snowy.

Victoria was to respond vigorously. The SECV, especially through the work of one of its Norwegian engineers, Trygve Olsen, had been applying its recently developed expertise in tunnelling technology to the possibilities of developing the Snowy. Following on from the development of the designs for Kiewa hydro-electric power stations and from his knowledge of northern European methods, a new proposal was offered. In concert with his differing technocultural assumptions about the relative importance of irrigation and electric power¹⁰⁴, at Olsen's suggestion in September 1944, a preliminary reconnaissance of possible dam sites on the Upper Murray was made. By October the possibilities firmed. By early February 1945 the SECV was recommending to the Minister in Charge of Electrical Undertakings, in response to the 1944 New South Wales report, that a Murray diversion was possible. Unlike those visions emanating from the New South Wales establishment, Olsen, as a Norwegian, 'went to source' in a different way, going to investigate the icy slopes of the Australia Alps, and a modern Murray diversion option arose. For the moment, however, its only sponsor would be the SECV and it would remain under wraps.

Concurrently, since late October 1944, the Commonwealth had been reviewing its constitutional position and considering its rights under the

¹⁰⁴. Williams, H. H. C., *Kiewa Hydro Electric Scheme; Technical History*, Melbourne, SECV, 196?, p. 13 [Victorian State Library M/S Collection] and Napier, G. and Easedown, G., *The Kiewa Story*, Melbourne, SECV, 1993, p. 29 and Anon, "Heavy Tunnelling Work: Kiewa Hydro-Electric Scheme", *The Commonwealth Engineer*, February 2, 1942, p. 170.

Seat of Government Acceptance Act. As mentioned, to supply electric power to the Australian Capital Territory, New South Wales had passed rights to the Commonwealth to develop the Snowy River. Thence the Commonwealth was itself drafting new terms of reference for another inquiry. The terms emphasised the Commonwealth's rights over the Snowy and, accordingly, over the now vying proposals on offer.¹⁰⁵ Yet Sir Harry Brown, the Co-ordinator General of Works (Dr Loder becoming the Director General of the new Department of Works and Housing in July 1945) was reluctant to recommend any immediate action. Cautiously, he was unwilling to contemplate any long term projects at the present time.¹⁰⁶ With the publication of its report into the Snowy Scheme in mid November 1944, New South Wales was also pressing for the Commonwealth to surrender its rights to develop the Snowy.¹⁰⁷

On the other hand, Moss and Jensen, responsible for organising war time power supplies by the Commonwealth, like Coombs, were keen to get early surveys underway.¹⁰⁸ Crucially, Coombs then managed to prevail on Forde (the acting Prime Minister) by emphasising the TVA as a federalist precedent for controlling regional development.¹⁰⁹ In particular, it was suggested that it be linked to current offers of federal funding for the expansion of the Hume dam.¹¹⁰ Forde wrote to the Premiers concerned about the matter, looking forward to similarly "successful results" to those achieved by the TVA.¹¹¹ Thence, as outlined by Chifley as Minister for Post War Reconstruction, in his submission to Cabinet of mid December, the strategy was now to financially lever the States, as a condition of the Commonwealth paying for 25% of the Hume works. They were to agree to

¹⁰⁵. "Suggested Terms of Reference", circa October 1944, attached to Minute by P. A. Dorrian, Ministry of Post War Reconstruction, no date, NAA: MP831, 1955/714 Part 1 (file 6/9), op. cit.

¹⁰⁶. Department of Post War Reconstruction, Minute, from McKenzie to Coombs, 24/10/44, NAA: 9816, 1945/270 Part 1, *Snowy River Hydro Electric Scheme - Policy Part 1*.

¹⁰⁷. McKell to Curtin, 15/11/44 and draft letter attached to Coombs to Secretary, Prime Minister Department, 11/12/45, NAA: A461, AJ423/1/1 Part 1, *Water and Electricity - General. Snowy River hydro-electric development*.

¹⁰⁸. Jensen, Secretary, Ministry of Munitions, to Coombs, Director General, Dept. of Post War Reconstruction, 17/10/44, NAA: A9816, 1945/270 Part 1, op cit.

¹⁰⁹. McKell to Curtin, 15/11/44 and draft letter attached to Coombs to Secretary, Prime Minister's Department, 11/12/45, NAA: A461, AJ423/1/1 Part 1, op cit.

¹¹⁰. Coombs to Dedman, 20/3/45, NAA: A9816, 1944/404 Part 3, *Murray Valley Regional Planning*.

¹¹¹. Forde to Premier's of New South Wales, Victoria and South Australia, 24/11/44, NAA: A461, S423/1/2, *Development of Murray Valley*.

either a rejuvenated River Murray Commission "with wider powers", or, a totally new and "independent joint Commonwealth-State body of a permanent character."¹¹²

Victoria's State Government also had much to think about beyond a Commonwealth controlled--and increasingly instrumental--regionalism and its implications for the Murray Valley. As Mervyn Weston of *The Argus* now argued, probably on information supplied by Ron East, the Chairman of the State Rivers and Water Supply Commission, Victoria had at least two alternative and hitherto hidden plans. In response to the Hay meeting of Murrumbidgee interests the prior Sunday, itself convened just after the release of New South Wales Snowy-Murrumbidgee diversion report, Weston hinted at other, hitherto unconsidered possibilities. He reported "plans for diverting the Snowy head-waters, either by direct tunnel to the Murray or by contour gravitation to lake Omeo, and then to the Mitta and Murray..."¹¹³ Weston also argued for a federal commission for the valley.¹¹⁴ Ever since 1942, in fact, East had been keen to suggest a semi autonomous authority to defend the right of the State--Victoria--to develop the (then) run-of-the-river proposal.¹¹⁵ He had consequently encouraged one of his engineers, Tom Lang, to research the question (see above).

The Premier, Dunstan, was, however, slow to become interested in supporting the new proposal for an autonomous Murray Valley Commission. His Gippsland East constituents were particularly concerned to secure the run-of-the-river option. Hence this first indication of the possibility of a Murray diversion hardly caused a ripple. Yet soon the SECV and the SR&WSC were combining during early 1945 in response to the New South Wales report. Both were to plead for a Royal Commission.¹¹⁶ It could (also) allow Dunstan to bring out his own concerns for the East Gippslander's, or, to at least 'soap box' on the issues for the electorates he

¹¹². "For Cabinet; Regional Planning in the Murray Valley and Proposal to Raise the Height of the Hume Dam", circa 17/12/44, p. 2, NAA: A9816, 1944/404 Part 1, *Murray Valley Regional Planning*

¹¹³. "How Should Water of Snowy River Be Utilised?", *The Argus*, 21/12/44, p. 2.

¹¹⁴. Ibid.

¹¹⁵. Wigmore, L., *Struggle for the Snowy*, Melbourne, Oxford University Press, 1968, p. 103.

¹¹⁶. Deputy Chairman, SR&WSC to Minister for Water Supply, 5/2/45, PRO: VPRS 1163/P, box 751, file 46/2045, *Snowy River* and see letters of McKay, Deputy Chairman, SR&WSC to Minister of Water Supply, 5/2/45 and Secretary, SECV, to Minister for Electrical Undertakings, 9/2/45, *ibid*.

served. Indeed, when the East Gippslander's and their south-coast New South Wales partners formed a deputation and conveyed the conclusions of their January conference in Bairnsdale to Dunstan, he appeared quite supportive. He did not reveal that a Murray diversion had been proposed by his bureaucracies although he could describe the New South Wales report as "not worth the paper it was written on."¹¹⁷ Or, as reported, he could only suggest that the development options had "been shelved for too long" but would not say what, in their entirety, they were.¹¹⁸

Dunstan was now in a dilemma. He had come out forcefully against the Murrumbidgee diversion and in support of the older Rendell, Palmer and Tritton option for the generation of power and hence in support of East Gippsland hopes for development. But his reasons for being able to criticise the New South Wales proposals were based mainly upon the growing confidence of the Victorian bureaucracy in the (still largely hidden) Murray diversion option. Hence it would take a further two months before he was willing to write to the Prime Minister to seek a Royal Commission.

Then, however, further pressure arose. At a meeting of the Albury Rotary Club in February, Roy Collings, Albury Council Secretary and one of the main founders of the Murray Valley Development League and a long time supporter of a federally co-ordinated resource survey, reiterated the formative influence of a possible Murray Diversion. The current push for Murray development, he suggested, was "bound up" with this other diversion option and should arouse "tremendous interest."¹¹⁹ He was at the same time announcing that such a diversion was possible and indicating that it had been crucial in encouraging interest in the valley. His source, not surprisingly, was the Commonwealth Controller of Electricity Supply, H. P. Moss,¹²⁰ who was obviously touting for support for this 'Commonwealth' proposal. He had learnt about the option from Ron East. Given the lack of enthusiasm by the Victorian Premier, it fell to the Commonwealth--if not Harry Brown--to support the proposal, which it was doing enthusiastically.

¹¹⁷. "Notes on a Deputation", 14/2/45, p. 6., *ibid*.

¹¹⁸. "Royal Commission on Snowy River Urged", *Herald* [Melb.], 14/2/45.

¹¹⁹. "Murray Valley Development: Town Clerk's Talk To Rotary", *Albury Banner and Wadonga Express*, 23/2/45, p. 21 and "Like a Motor Car Without an Engine", *Border Morning Mail*, 20/3/45, p. 3.

¹²⁰. "More Water For the Murray?" [Letter to the Editor], *Border Morning Mail*, 23/2/45.

War-time powers enabled a greater Commonwealth ambit over agriculture through the Rural Reconstruction Commission. The Commission had been touring the country taking evidence and since early 1944 it had been releasing its reports. These would continue to be published well into 1946. As well as supporting improvements to rural credit, rural amenities and for employing returned soldiers on the land, the Commission had a proto-environmental brief. In contrast to some boosters it warned that "unfortunately, the public is far too easily led to assume that Australia has an almost unlimited future in the development of irrigation schemes."¹²¹ It was not surprised by the difficulties faced by some recent schemes. Rising water tables and the salting of soils had become well understood phenomena "and the methods by which they can be obviated are now well known" such as by using only the amounts of water needed. Against Bradfield, it warned against the belief that water alone was needed and against the "time worn belief that Australia's soils are highly fertile...that only the shortage of rain restricts plant growth."¹²² In short, the Commission was evolving a more sceptical approach to irrigation and expressing proto-environmental concerns potentially enabling a 'fusion of horizons' with the States.

Again, however, with failure of the Powers Referendum the illness and death of Curtin especially, a more conventional economics and a 'Treasury line' would dictate which programs were to be supported. In fact, since the October 1944 regional conference a diminution in enthusiasm for regionalism was apparent. Officers within the Department of Post War Reconstruction were now moving to criticise the more ambitious regional planning concepts. They believed the more ambitious regionalism was "grossly unrealistic, claiming it under-estimated economic, political and constitutional complexities."¹²³ State rights over resource development were resurgent. Nevertheless, in place of the more semi-autonomous and ecologically foregrounded forms of regionalism, an instrumental or resource extractive regionalism could still have its uses.

¹²¹. Australia. Rural Reconstruction Commission. *Irrigation, Water Conservation and Land Drainage*, Canberra, The Commission, December 1945, p. 9 (emphasis deleted).

¹²². *Ibid.* p. 34.

¹²³. Howard, Michael, *Advocacy and Resistance: The Question of a Post-War Commonwealth Government Role in Community Facilities, Town Planning and Regional Planning, 1939-52*, Canberra, Australian National University, Research School of Social Sciences, 1988, p. 23.

With the White Paper on full employment of May 1945, the Commonwealth would again seek to take the initiative on planning or, at least, on co-ordinating strategic investment into large technological systems. In place of a waning enthusiasm for regionalism, this approach, in concert with its enlarged powers over taxation collection (since 1942), could allow the Commonwealth to move in 'under' the States.¹²⁴ Indeed, the efforts of the Commonwealth to *gain full control* and out-manoeuvre the States was far from over. In May 1945, the Commonwealth re-affirmed its resolve to establish a TVA-like river basin authority for the Murray Valley, even as the Premiers disagreed.¹²⁵

With the matters of regional development linked to the prospects of the Snowy Scheme burgeoning, the younger bureaucrats within the Department of Post War Reconstruction remained keen to prevent the opportunities from slipping away. As Victoria's Premier, Dunstan, was suggesting that a Royal Commission be set up to investigate the Snowy, and yet was not advocating the Murray Valley regional option, Allen Brown, as head of Policy and Research within the Department of Post War Reconstruction, then suggested a trade-off. He wondered; "...would it be possible to exploit this situation in such a way as to gain Victoria's support on the Murray Valley proposition in return for our support of a full investigation of the Snowy[?]"¹²⁶

With Dunstan in power in Victoria, this way of continuing to develop a liaison with his State and hence force New South Wales to the regional bargaining table, and/or to the Snowy re-design board, was a less workable proposition. Dunstan was firmly anti-Commonwealth and allied to East Gippsland or to a run-of-the-river option. However, as Chifley explained to the House, "the finding of the money will, no doubt, be a matter for the Loan Council."¹²⁷ The Commonwealth was, as with the Hume, again dealing with the States by playing them off each other and by applying its relatively new financial or taxation powers.

¹²⁴. Greenwood, G., *The Future of Australian Federalism*, Brisbane, University of Queensland Press, 1976 [2nd ed], p. 173.

¹²⁵. Chifley to Collings, Acting Secretary, MVDL, 27/7/45, NAA: A461, S423/1/2, *Development of Murray Valley*.

¹²⁶. Brown to Coombs, 17/5/45, NAA: A9816, 1945/270 Part 1, op cit.

¹²⁷. Chifley, *Parliamentary Debates*, Canberra, Govt. Printer, 1945, 23/5/45, p. 1974.

In July 1945, Ron East was publicly arguing for a TVA-like commission for the Murray Valley.¹²⁸ Yet, due to Dunstan's opposition, the news of a Murray diversion, surprisingly, still did not figure strongly in subsequent reporting. Most newspapers continued to report the major alternatives as either the Murrumbidgee diversion or the run-of-the-river scheme. Thus when Newman himself returned to the topic in the *Sydney Morning Herald* in early August, the ground had apparently shifted less than previously reported; "Many Victorians with considerable support from Monaro public men are keen to see the river harnessed for its power potentialities, some of them with an alternative plan to divert its course into the Murray."¹²⁹ By late July, however, pushed by his bureaucrats, Dunstan was finally acknowledging, publicly, that the proposal, which the Commonwealth was keen on, had been a Victorian suggestion. He remained adamant however that a Royal Commission was required, at arms length from his government.¹³⁰

The Commonwealth agenda was then tested internally against a legal opinion about the suitability of an interstate commission. In July 1945, the Minister for Post War Reconstruction, Dedman, instructed his officers investigate whether such provisions were "still operative" as they implied a Commonwealth role.¹³¹ By May 1946, the opinion had investigated provisions within the Constitution as they related to free trade between the States and, secondly, as the Constitution protected water rights. The power of the Commonwealth to act as an active guardian of river waters was minimal under this latter provision (Section 100). The States could therefore negotiate between themselves.¹³² In what would have been a blow to Commonwealth hopes, the Commonwealth would be forced back upon its financial powers and its capacity to politically influence outcomes.¹³³

Showing a belief in a similar interpretation of the Constitution, at the Premiers' meeting of August 1945 (whilst McKell was overseas, inspecting

¹²⁸. East, R. L., "Water Planning in Victoria", *Rydge's*, Vol. 18, July 1, 1945, p. 517.

¹²⁹. "The Battle for the Snowy", *SMH*, 3/8/45.

¹³⁰. "Use of Snowy River Waters", *The Argus*, 27/7/45.

¹³¹. Dedman, note in margin to Appendix 'A' of "Snowy River", circa 17/7/45, NAA: A9816, 1945/270 Part 1, op. cit.

¹³². See "1. Inter-State Commission", [accompanying corresp. May 1946] in NAA: A9816, 1945/270 Part 2, *Snowy River Hydro Electric Scheme - Policy*.

¹³³. *Ibid*, p. 4

the TVA), New South Wales confidently offered a possible split of the Snowy, part to the Murrumbidgee and part to the Victorian run-of-the-river proposal.¹³⁴ The success of such a simple compromise solution, which went towards meeting Dunstan's constituency, was the worst fear of the Commonwealth as it could freeze the Commonwealth out of any role and neatly split the water between the two States.

The Snowy River Hydro Electric Development League and the Shires of the south east of New South Wales and of East Gippsland responded to the now two, rival options by again advocating an 'Earle Page', New State strategy for the region¹³⁵ (figure 17). A new state of 'Borderland' was proposed, highlighting by its name the increasingly marginal position this region felt itself to be in. Murrumbidgee and WC&IC interests had also prepared another public relations vehicle to argue for the priority of the Murrumbidgee. A booklet *Water for the Thirsty Land*, aimed at countering especially Victorian claims for diversion of the Snowy into the Murray. The Association was also boosted by a supportive legal opinion from Garfield Barwick.¹³⁶

Yet others were working for qualitatively different outcomes. In contrast to the emphasis upon retaining State rights or upon the overarching control and the narrow, quantitative notions of 'efficiency' or 'logic' of large systems, Jocelyn Henderson was advocating community-based planning, based on her own farming experience. More particularly, through her support for 'community forests', she was an advocate for placing limits on the now burgeoning 'open frontiersmanship' approach to development. She proposed forest preserves and soil protection. Via her farming experience, she had already applied ideas of leaving timber in water courses on farms, of protecting water catchment areas, leaving wind-breaks, extensive borders and special clumps of trees, to leave well over ten per cent of her father's farm covered when cleared.¹³⁷ She also brought to the fore in her concerns the overstocking of land, destroyed

¹³⁴. "Cabinet Sticks to Snowy River Plan", *Daily Telegraph*, 29/8/45.

¹³⁵. "They're After a New State Down South", *Sunday Sun* [Sydney], 2/9/45.

¹³⁶. Barwick, Garfield, "Opinion; Re: Snowy River, Ex Parte: Murrumbidgee Valley Water Users Association", 3/7/45, in CSUA, RW3/4/4010. See esp. p. 7.

¹³⁷. Henderson, Walter G., "Tree Planting in Holbrook Shire" [letter to the Editor], *Border Morning Mail*, 31/7/45, p. 4.

Figure 17; Proposed borderland region, from "They're After a New State Down South", *Sunday Sun*, 2/9/45.

THEY'RE AFTER A NEW STATE DOWN SOUTH

MOVES will be made in the next fortnight to advance a scheme to form a new State in the south-east corner of Australia, taking in parts of New South Wales and Victoria.

Tentatively called Borderland, the proposed State would have an area of about 20,000 square miles.



Where the proposed new State would fit on the map.

NSW shires and municipalities concerned will be represented at a meeting at Jindabyne, on the Snowy River, next Wednesday.

Victorian representatives will meet a week later.

Snowy River Shire president, Councillor Leo Barry, told "The Sunday Sun" yesterday that 75 per cent. of the people in the area were behind the scheme.

They believed they were too far from the State capitals, Sydney and Melbourne. Legislation from the metropolitan areas did not reach far enough.

Cr. Barry declared: "The Cinderella of the Commonwealth is waking up, but she will have to fight for better conditions."

Bega may be capital

At a meeting at Moruya last month, when a sub-committee was appointed to inquire into legal procedure, speakers said that in the whole of the 20,000 square miles from which it was proposed to form Borderland, there was no high school, no railway, no big water or electric power scheme, and only poor roads.

Members of the sub-committee are Cr. Barry, Bega Mayor Ald. C. Ayres, and Snowy River Shire Clerk J. Heel.

Bega, centre of the rich dairying district of the far South Coast, has been suggested as capital. Its port is Tathra.

Chief port would be Eden, on Twofold Bay, a magnificent harbor north of the Victorian border.

Parts of NSW proposed for inclusion are the shires of Eurobodalla, Bibbenluek, Monaro, Imlay, Mumbulla, and Snowy River, and the municipalities of Bega, Bombala and Cooma.

The Victorian part is East Gippsland, which includes the shires of Orbost, Tambo, Omeo, Avon, Bairnsdale, and Sale.

Supporters of the scheme claim that such a new State could make a big contribution to Australia's postwar advancement by creating opportunities for increased population and productivity in an area which otherwise would remain undeveloped.

forests, eroded lands and streams with the subsequent silting of rivers and reservoirs.¹³⁸

Where good rainfall occurred, Henderson further offered a localised and proto-sustainable approach to resource and materials use through:

forests owned by a community, planted as closely as possible to that community, and supplying it with raw materials--fuel-wood, building and construction timber...and at the same time providing it with recreation areas and lovely surroundings.¹³⁹

Such an approach would avoid the rapid depletion of forests; a "sustained yield" approach would ensure the availability of timber and which could be used for a variety of purposes, continuously.¹⁴⁰ It would also advance the control of soil erosion and the protection of habitats of native species, which would, in turn, help control insect pests; "local forests, replacing the shelter that has been destroyed, would help to restore the balance of nature we have upset." Local, decentralised employment would be a further result.

The community forests idea was also an empowering or facilitating program. It aimed to encourage communities to develop their own views and methods, to enable them take charge of the administrative mechanisms that would need to be deployed; "such forests not only provide...assets...but they cultivate the spirit of co-operation and independence necessary in a community which has the progress of the district at heart."¹⁴¹ Henderson was seeking a democratic and involved community. This approach also suggested that the economy should be placed at the service of the local community. It stood in contrast to the narrow, 'full utilisation' approach favoured by the forestry expertise of the States, challenging the colonisation of the domestic sphere, implicitly challenging gendered power relations. It was, therefore, yet another regionalism. It aimed to serve localities and biological diversities. In sum, as for the Natural

¹³⁸. Jocelyn Squire Papers, 1942-1965, Part C, Talks and Reports, 1942-1965, Henderson, J., "Coonabarabran Talk", p. 3, Mitchell Library, MS 1675.

¹³⁹. Ibid, p. 8.

¹⁴⁰. Ibid, p. 11.

¹⁴¹. Henderson, J. "Community Forests for Australia" p. 7638, in Commonwealth of Australia, Rural Reconstruction Commission, [transcript of evidence] 12/11/43, NAA: CP462 [box 3], *Minutes of Evidence Taken by Rural Reconstruction Commission*.

Resources Conservation League and soil conservationists, Henderson was seeking an integrated approach, one that sought sustainable and equitable inter-dependencies between nature, economy and culture (figure 18).

Aborigines also continued to demand a 'New Deal'. With the cessation of the Pacific war in August, one in which Aborigines had of course fought, Shadrack James, an Aborigine from Mooroopna in Victoria on the Goulburn River, sought to arrange for a deputation of Aborigines to meet with the Prime Minister to discuss their poor conditions. Chifley asked that he forward a statement. James succinctly connected infrastructure, land and administration. Along with calling for better administration and representation for Aborigines, employment initiatives should also be created:

I suggest that they be given land in perpetuity of sufficient areas in irrigated districts where they could settle permanently and make homes of their own. At present the Aborigines are landless proletarians without any hope in the world; every bit of land on which they are living in reserves or compounds is vested in the Aborigines Protection Board...as the original owners of this country we should have a share in the administration of our own race.¹⁴²

Coombs prepared a response to the letter and acknowledged the urgency of the issues. In a similar 'New Deal' vein to James, a Commonwealth Bureau of Aboriginal Affairs was proposed, in which "research and training of teachers and field officers could be undertaken."¹⁴³ Access to land and water was not mentioned. In contrast, therefore, to the efforts of the Commonwealth to advance regionalism as a way of influencing outcomes and of furthering full employment, the development of indigenous powers, especially in relation to land (and water), was being shelved. Similarly, at the level of State government, the potential of US development models for indigenous peoples was neglected as concerns concentrated upon the federalist issue.

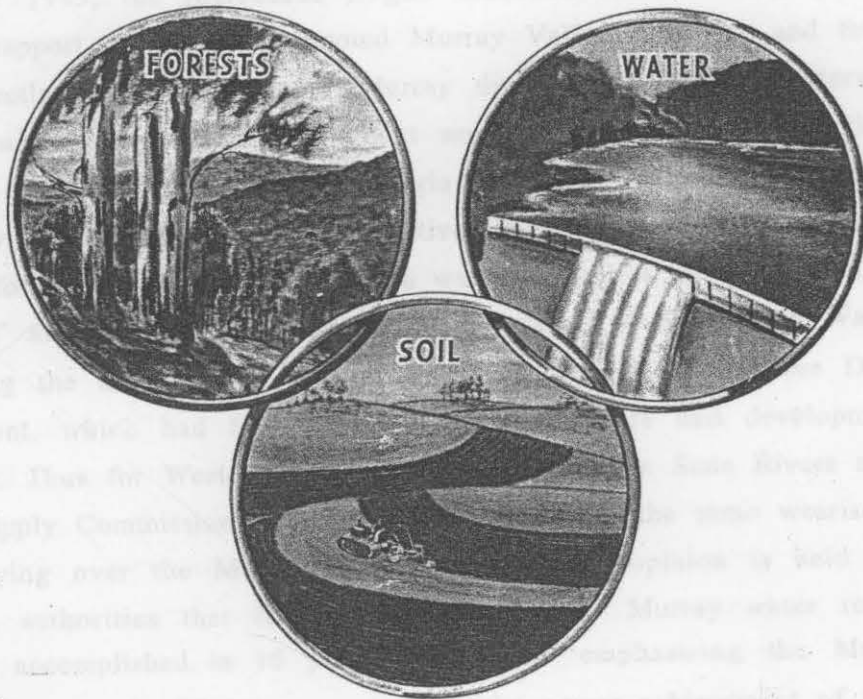
¹⁴². James, S. L. to Chifley, 27/8/45, NAA: A461, A300/1 Part 4, op cit.

¹⁴³. Coombs to Secretary, Prime Ministers Department, 27/9/45, NAA: ibid.

Figure 18; Cover graphic from "An Inseparable Trinity", from Save the Forests Campaign Council, *Story of the 'Save the Forests Campaign'*, Melbourne, The Campaign Council, 1949.

N13

"An Inseparable Trinity"



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After he had been to the TVA, McKell hoped that "co-operation" with the existing authorities was feasible rather than some new, super commission being created to usurp their powers.¹⁴⁴ His US tour suggested, however, positive examples of how large, multi-purpose development projects were being financed in the United States. This was a point not really grasped by the 1942-44 Snowy River Investigation Committee, with its strict priority for irrigation, and antagonistic attitude towards electricity options. In a separate report, electricity production was noted by McKell as being the major source of revenue for such schemes. In commenting on the US Reclamation Act, McKell was quite plain how "this Act also recognised the importance of power in determining the feasibility of a project."¹⁴⁵

Concurrently, in the lead-up to the next Victorian election, from mid September 1945, the Melbourne *Argus* launched another campaign, this time in support of the often mooted Murray Valley Authority and thus, quite directly now, for a Snowy-Murray diversion. Written by Mervyn Weston, who had travelled throughout northern America in 1945, the campaign again complained that Victoria was still reliant upon black coal from New South Wales, for its locomotives and gas production. As the editorial for *The Argus* put it, Victoria was still subject to "Black Coal's Blackmail" and having "to submit to being a vassal of New South Wales."¹⁴⁶ Underlying the articles was also a complaint directed against the Dunstan Government, which had failed to take up expenditure and development initiatives. Thus for Weston, in tune with East and the State Rivers and Water Supply Commission (and the SECV), "there is the same wearisome dilly-dallying over the Murray today, although the opinion is held among Victorian authorities that full development of the Murray water resources could be accomplished in 10 years."¹⁴⁷ Further emphasising the Murray diversion option, the TVA was such that "the power achievement of TVA are of the utmost importance...power is really the paying partner of the enterprise, the remainder [of investments] being written off in the general advancement of the nation."¹⁴⁸

¹⁴⁴. New South Wales. Parliament/McKell, W. J., *The Tennessee Valley Authority (USA)*, Sydney, Government Printer, 1945, p. 22.

¹⁴⁵. Parliament of New South Wales/McKell, W. J., *Water Conservation and Irrigation in the United States of America*, Sydney, Govt. Printer, 1945, p. 5.

¹⁴⁶. "Black Coal's Blackmail", *The Argus*, 12/10/45, . 2.

¹⁴⁷. Weston, M., "How Murray River is Controlled", *The Argus*, 17/10/45, p. 2.

¹⁴⁸. Weston, M., "TVA Has Justified Itself", *The Argus*, 29/9/45, p. 11.

The election gave victory to Cain--much assisted by a fairer electoral redistribution. He was, like McKell, keen to move away from restrictive expenditure policies. Cain's policies were now to include boosting the strength of the State Rivers and Water Supply Commission. This, itself, was part of an on-going employment (and expenditure) program which would "direct the flow of labour from one state development work to another."¹⁴⁹ Indeed, the election victory, although narrow, was again as with McKell based upon Labor gaining country seats including Gippsland North, Goulburn and Mildura. Cain began to publicly advocate a Murray diversion.¹⁵⁰ The Victorian government was now "greatly concerned" about the matter.¹⁵¹

Regionalism soon re-emerged as the vehicle by which the agreements would be negotiated. For Victoria, the development of the Murray Valley was now closely linked to the question of the Snowy River.¹⁵² Regional development suited the Victorian Government as it sought to join with the Commonwealth to offset the power of New South Wales. That is, the Cain government was more enthusiastic about a 'co-operative' regionalism with the Commonwealth, at least for the Murray if not the Snowy Valley. The Snowy Scheme stood to be re-interpreted and redesigned from this 'Murray Valley' perspective.

In support of an 'anti-New South Wales front', moves were soon underway within the Commonwealth Departments of the Interior and Post War Reconstruction to elaborate a plan for "the development of the ACT, Jervis Bay and [the] surrounding region."¹⁵³ Firstly, the Department--or Coombs again--was also drawing upon ideas long ago advanced as part of the plans mooted thirty years earlier for Canberra. A large lake, to greatly extend the central, 'ornamental' lake of today, could be constructed.¹⁵⁴ With echoes of Bradfield's popular schemes, such a reinstated plan for a large reservoir would contribute to the post-war reconstruction effort of building

¹⁴⁹. "Employment Plans in Labour Policy", *The Argus*, 19/10/45, p. 3.

¹⁵⁰. "Premier to Push Snowy River Plans", *The Sunraysia Daily*, 29/1/46, p. 1.

¹⁵¹. Cain to Chifley, 1/2/46, PRO: VPRS 1163/P, box 751, file 46/2045, op. cit.

¹⁵². Cain to Chifley, 28/2/46, NAA: MP 831, 1955/714 Part 1, file 1/9, op. cit.

¹⁵³. Telegram from Secretary Works and Housing from A. S. Brown, 27/3/46, NAA: MP 831, 1955/714, Part 1 (file 1/9), *ibid*.

¹⁵⁴. The Parliament of the Commonwealth of Australia, *Federal Capital*, Melbourne, Victorian Government Printer, 1915, p. 61 and *The Argus*, "Enormous Lake; Rival to Sydney Harbour", 16/4/15, p. 8.

"reservoirs in every valley." Accordingly, as suggested by *The Argus* of early March 1946, the question was "can Canberra become a great city?"¹⁵⁵

Just as graphically, an expansive Australian Capital Territory was being pushed forward to become part of the new regionalism (figure 19). An industrial-geographic region was mooted by *The Argus* such as to extend the economic sphere of Canberra's regional influence. It could include the whole south east corner of New South Wales. That is, a much expanded Capital region was also being proposed as the Department of Post War Reconstruction had been "trying to select centres with adequate possibilities of development, where secondary industries could be set up, mainly to relieve the congestion of industry in Sydney and Melbourne."¹⁵⁶ In short, the Commonwealth, or Canberra itself, could claim territory or claim to provide an alternative focus for industry--a focus away from Sydney.

Consequent to this push and in contrast to Dunstan, in face of the mounting regional and financial pressures McKell began to waver. As Victoria and the Commonwealth sought a broad inquiry into the Murray Valley and/or the Snowy Scheme, McKell agreed to the need for "further discussion" on the matter of the Snowy Scheme.¹⁵⁷ In mid-May, however, McKell replied cautiously to the Acting Prime Minister on the matter of setting up the mooted and much discussed regional resources survey into the Murray Valley.¹⁵⁸ A mere audit of development possibilities without much in the way of policy control by the region(s) would be the only outcome New South Wales would agree too.

Yet the President of the Murray Valley Development League, Padman, was pleased; "this is what everyone concerned had been striving for..." He reiterated the League's apparently 'objective' approach, believing that "an impartial investigation...would be a decided step towards the full development of the valley and over-all, instead of divided control."¹⁵⁹ As

¹⁵⁵. O'Reilly, Mary, "Can Canberra Become A Great City?", *The Argus Week-End Magazine*, 9/3/46, p. 2.

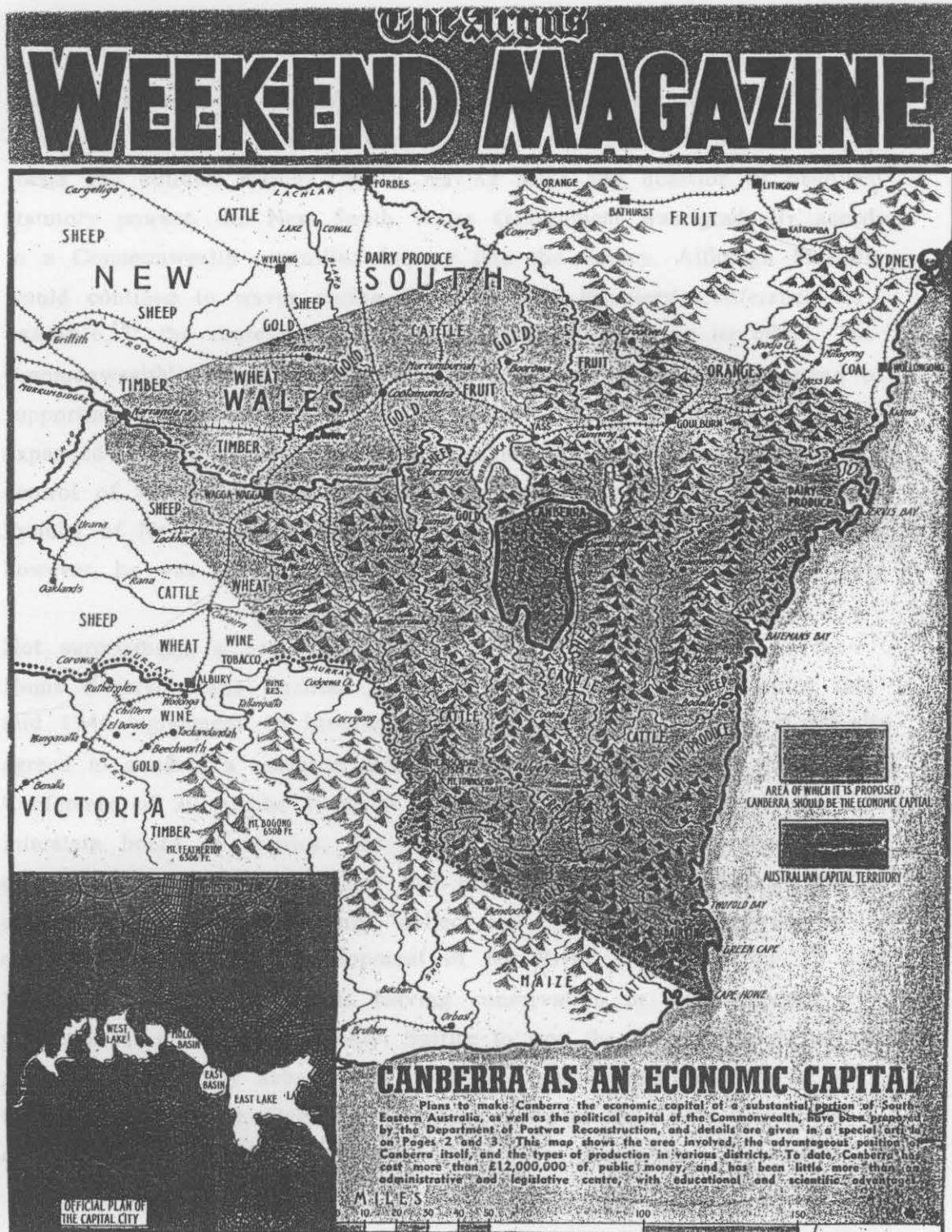
¹⁵⁶. Ibid.

¹⁵⁷. McKell to Chifley, 9/4/46, NAA: MP 831, 1955/714, Part 1 (file 1/9) op. cit. and in NAA: A9816, 1945/270 Part 2, op. cit.

¹⁵⁸. McKell to Acting Prime Minister, 15/5/46, NAA: A9816, 1944/404 Part 3, *Murray Valley Regional Planning*.

¹⁵⁹. *Murray Valley Newsletter*, No. 1, Jan.-Feb. 1946, p. 2.

Figure 19; Map, proposed expansion of ACT region, from *The Argus*,
Weekend Magazine, 9/3/46.



191. *See* *the Argus*, 22/7/46, p. 10; *THE NEWS*, 11/10/46, box 793, file 472716, *Stony River*.
 192. *Wigners*, op. cit., p. 125-6.
 193. *Murray Valley Newsletter*, No. 7, Sept. 1946, p. 2.

such, however, the League was not departing from conventional or dominant forms of TVA-ism. This also meant that legal control by the regions, including the Snowy River region as well as those of the Murray or Murrumbidgee, over the most crucial development proposal, the Snowy Scheme, had also been passed over.

Specifically, with the inquiry into the resources of the Murray Valley effectively sidelined into a non-statutory review or 'audit' of physical, social and cultural matters, whilst leaving aside any question of devolved statutory powers, the New South Wales Government was gradually acceding to a Commonwealth controlled inquiry into the Snowy. Although McKell would continue to waver during the July 1946 Premiers' Conference for example,¹⁶⁰ the strategy of the Commonwealth was having its effect. The Commonwealth's effort to trade control was slowly taking hold. Instead of supporting a massive, federal-backed Murray Valley Authority, or, an expanded Australian Capital Territory region, it was gradually gaining control of the Snowy project. Thirteen months later, the next (Labor) Premier of New South Wales, McGill, would still be intransigent. By then, however, he was unable to force the Commonwealth out of a primary role.

Not surprisingly, a new agreement on financing the upgrading of the Hume Reservoir was finalised just after the Commonwealth obtained this mid 1946 'agreement' to investigate the Snowy Scheme.¹⁶¹ Soon, it was also agreed to conduct a resource survey of the Murray Valley. At the Premiers' Conference of 20 August 1946, in response to the League's request for a full interstate board of inquiry, the Premiers agreed to an interdepartmental committee. It was, however, one that would not investigate the transfer of statutory powers. It would only "collect and collate all the information available regarding the development of the River Murray Valley."¹⁶² As a 'state-based' TVA-ism, it was leaving conservation or environmental protection at the State level only. Suffice to say, the most important of all prospects, the Snowy Scheme and its various possibilities, was not to be included in the audit. Over the remaining years of the 1940s, hopes for devolved political structures--and schemes--to accompany regional

¹⁶⁰. East to Jungwirth, 22/7/46, PRO: VPRS 1163/P, box 790, file 47/2716, *Snowy River*.

¹⁶¹. Wigmore, op. cit., p. 125-6.

¹⁶². *Murray Valley Newsletter*, No. 7, Sept., 1946, p. 2.

development, petered out.¹⁶³ The strategic financial leveraging of the States, combined with a resurgent but instrumental regionalism with Cain, pushed the Snowy Scheme investigations into the now three vying proposals (figure 20) back under federal control.

Finally, by the end of 1945, the Department of the Interior had responded to Coombs suggestion, raised in his reply to Shadrack James, for a Bureau of Aboriginal Affairs. It gained little support from the Department, however, as "it would be doubtful whether such a Bureau would be a success unless the Commonwealth had control over the aboriginals of the whole of Australia."¹⁶⁴ Even as Aboriginal prospects were stalling, a scheme for Aboriginal farming at Wellington under the auspices of the New South Wales government was proposed but, again, it ran into difficulties due to lack of government support.¹⁶⁵ Nevertheless, when the Aboriginal activist Ferguson stood for federal parliament in 1949, he would still be advocating water conservation for the Western Division of New South Wales and still for a share in the 'New Deal' for his peoples.¹⁶⁶ Tragically, however, he died soon after.

In sum, varied TVA-influenced approaches to developing large technological systems arose from the late 1930s. Many, vying technocultural possibilities were mooted as part of water, energy, manufacturing, conservation, and/or variously localised development emphases. They also involved a range of symbolic practices, including the representation of preferred technocultures. As well as the more autonomous or 'scientific' possibilities, often preferred by the departments or commissions, devolved and co-ordinating political possibilities, competed. Possibilities beyond the dominant resource extraction approach to the water cycle were also encouraged by the TVA emphases upon 'conservation' as was a role for a more rational, co-ordinating, central government.

¹⁶³. Hartnett, Con, *Curtin and McKell; Architects of Regionalism in Australia*, Newcastle, Hunter Valley Research Foundation, 1984, p. 175 and 179. Also see "Report of the Committee appointed to consider and advise upon the practicability of placing Regional Development Committees on a statutory basis", 1948, Premier's Department, Reconstruction and Development Division [Special Bundles], SRNSW: 4/7835A, *Papers re Report on Regional Committee*.

¹⁶⁴. Carrodus to Secretary, Prime Ministers Department, 20/11/45, NAA: A461, A300/1, op cit.

¹⁶⁵. Horner, 1974, op. cit., p. 141

¹⁶⁶. Ibid, p. 165-6.

Figure 20; The three main diversion proposals (1945) from; Australia, Rural Reconstruction Commission, *Irrigation, Water Conservation and Land Drainage* (Eighth Report), Canberra, The Commission, 1945, p. 66.

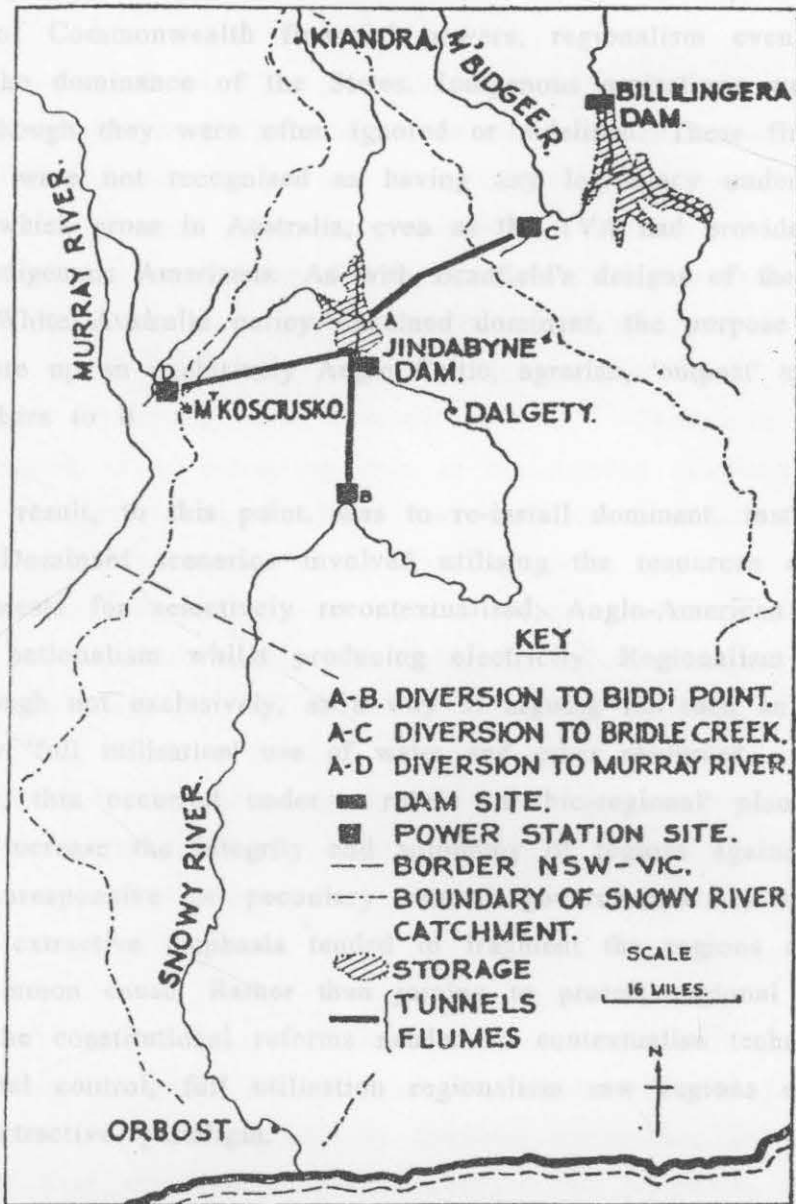


Figure 11.—The Snowy River Catchment Area. This indicates the relationships of the principal developmental schemes. Although few topographic features are shown, it should be realized that the whole area is extremely mountainous and rugged.

Henderson, for example, challenged the conservation as 'full utilisation' paradigm and suggested living within environmental constraints whilst defending community. As part of regionalism, soil conservation practices also figured. These encouraged ideas of participation, to provide support for more genuine regional aspirations, such as to re-orientate experts towards local, regional needs, to potentially refigure relations between systems, experts and publics. Before the loss of the Powers referendum, via the emergence of Commonwealth financial powers, regionalism even challenged the dominance of the States. Indigenous aspirations were also inspired, although they were often ignored or sidelined. These first nation 'borderlands' were not recognised as having any legitimacy under the regionalism which arose in Australia, even as the TVA had provided some scope for indigenous Americans. As with Bradfield's designs of the late 1930s, the White Australia policy remained dominant, the purpose often being to shore up an exclusively Anglo Celtic, agrarian, 'outpost' and to assimilate others to it.

The primary result, to this point, was to re-install dominant, instrumental approaches. Dominant scenarios involved utilising the resources of rivers, soils and forests for selectively recontextualised, Anglo-American visions of agrarian nationalism whilst producing electricity. Regionalism arose mainly, although not exclusively, as a way of arguing for such an intensified or 'full utilisation' use of water and other resources.

Paradoxically, this occurred under a rubric of 'bio-regional' planning, designed to increase the integrity and autonomy of regions against apparently unresponsive or pecuniary central governments. In tandem, the resource extractive emphasis tended to fragment the regions away from any common cause. Rather than joining to protect regional integrity, or, to win the constitutional reforms needed to contextualise technology within regional control, full utilisation regionalism saw regions compete within an extractive paradigm.

The strategy the Murray Valley Development League applied against New South Wales was crucial. The MVDL worked in concert with 'scientific' planning approaches and for a co-ordinating role for the central government, thereby supporting Victoria's claims. With the Commonwealth then propagandising that it could take economic control of south eastern New South Wales, New South Wales began to loosen its grip. Gradually conceding to the more rational institutional possibilities, New South Wales

began to relinquish control over the Snowy Scheme to the Commonwealth. Accordingly, however, a compromised TVA model emerged. In return for regaining control over its major inland river valleys, New South Wales was allowed to conduct a harmless audit of regional options for developing the 'whole' Murray Valley--but not its headwaters. Without a wider geographical ambit and an environmental role constructed for the Commonwealth, this TVA-ism was not a 'whole river basin' approach.

A particular reading of the TVA planning model had arisen. Being modern-as-democratic mainly meant the proliferation of a corporatist and truncated (Lilienthal-like) regionalism. Despite the enthusiasms of many within the Commonwealth bureaucracy towards co-operative possibilities or towards the more environmentally benign and socially communal philosophy of Mumford, these possibilities became 'impracticable'. For Coombs, as he would later recall, "regional planning...flew in the face of the logic of the developing world economic system."¹⁶⁷ Failure to provide the Commonwealth a co-ordinating role in maintaining environmental integrity, as was pursued by the Rural Reconstruction Commission (and Coombs), had meant, paradoxically, that local capacities were also impeded. This, plus the emergent money power of the Commonwealth, meant that processes of technological change were being shaped by more narrowly universalising, 'full utilisation' economic criteria, rather than particularising local, community and ecological rights. Conversely, the Constitution and other social institutions were being interpreted to accord with the exigencies of this large system. The Commonwealth now risked being dominated by the 'internal logics' of partially empowered elites.

Ultimately, TVA-ism had been interpreted to permit resurgent planning expertise to direct debates. It compromised--institutionally, geographically and culturally--as ideals of a politically devolved regionalism and balanced federal powers over development were exchanged for pragmatic control. With the arrival of the Snowy Scheme in particular, localising and even modest approaches to resource development became secondary to expansive, assimilating-nationalist visions. Expertise became less able or interested in methods by which to cultivate diversities of place and thence employment. It came to be more committed to 'the logic' of uniform and

¹⁶⁷. Coombs, *op. cit.*, p. 65.

extractive systems. Elaborating Bradfield's approach, the scientific regionalism of Tom Lang was indicative of this more powerful trend. As such, a combined formula was also building within planning elites seeking to favour the quantitative expansion of systems. Within an increasingly strategically minded bureaucracy, the aim was to build, defend, manage and to intensify a production-consumption economy--with financial continuity--to serve a populating nation.

Chapter 3: The Hydro Electrified River on the Hill

The next planning choice to be considered arose as plans to combine the two main diversion options (the Murray and Murrumbidgee options) only slowly emerged into open, public awareness. The June 1946 conference had launched an investigation to prove the Murray proposal in comparison to the Murrumbidgee proposal. It aimed to conclude its deliberations in December of that year. In collaboration with the States, the investigations were to be conducted by Department of Works and Housing engineers, by Loder (Director General), Lewis (Director of Engineering) and his principal hydro-electric engineer, Rowntree. The partial or confused transfer of planning responsibilities appeared to these engineers to be inadequate, however. By way of seeking a loophole perhaps, Rowntree was soon suggesting that "no clearly defined scope" existed for their investigations.¹

As early as May 1946, in fact, Lewis and Rowntree had been formulating plans that set out to do much more than just compare the two diversion options. They envisioned a much expanded plan for the use of the waters of the Alps. This involved, as Lewis recalled, "the *co-ordinated* harnessing of the Upper Snowy, Upper Murray and Upper Murrumbidgee Rivers."² Sites for a possible dam on the Upper Eucumbene were crucial, as water could be transferred along a higher, more accessible tunnel than from Jindabyne and could augment flows to the Murray.³ This was also planned in conjunction with Upper Murrumbidgee waters.⁴ For Rowntree, "a broad enough vision" had yet to be taken.⁵ Unbeknown to the States, the Commonwealth engineers were already playing with the idea of combining the two rival schemes. A much expanded, 'full utilisation' approach to the water cycle was being planned, with the experts galloping off after an enlarged Scheme (figure 1).

¹. Rowntree, E. F., "Snowy River Investigations; Notes on Works Required and Proposed Procedure", circa late July, 1946, p. 1, NAA: MP 831, 1955/714, Part 1 (file 1/9) *Snowy River Hydro Electric Development*.

². Lewis, R., *Development of the Snowy River Scheme*, Canberra, Department of Construction, 1971, p. 9 [emphasis added]

³. *Ibid*, p. 10.

⁴. "Snowy River; Notes of Inter-Departmental Meeting held at Parliament House Canberra.." 28/5/46 [draft], NAA: MP 831, 1955/714, Part 1 (file 1/9), *op. cit.*

⁵. *Ibid*.

Figure 1; Cartoon by anon, accompanying "Science Begins to Gallop", *Smiths Weekly*, June 29, 1946.

SCIENCE BEGINS to Gallop

WHETHER downhill or uphill, science is out of control, and galloping. For a stopwatch on it, use one of the Time Capsules of eight years ago.

RECENTLY two Time Capsules were sealed and buried, to be opened 5000 years in the future. One was buried in New York, 1938, the other at Atlanta, USA, 1940. They contain objects in common use, latest inventions, sound records, and millions of words (on microfilm) describing current art, science, music, technology, politics, philosophy, literature, home life.

By H. C. McKAY

As a record of our pre-war world these capsules (non-corroding, torpedo-shaped chambers) are faithful enough; but they've become scientifically out-of-date in eight years.

When the 1938 capsule was buried, just three types of plastic were included: samples of glass-clear methacrylate (Lucite), of beetleware (urea-formaldehyde) and of micarta (laminated phenol-formaldehyde).

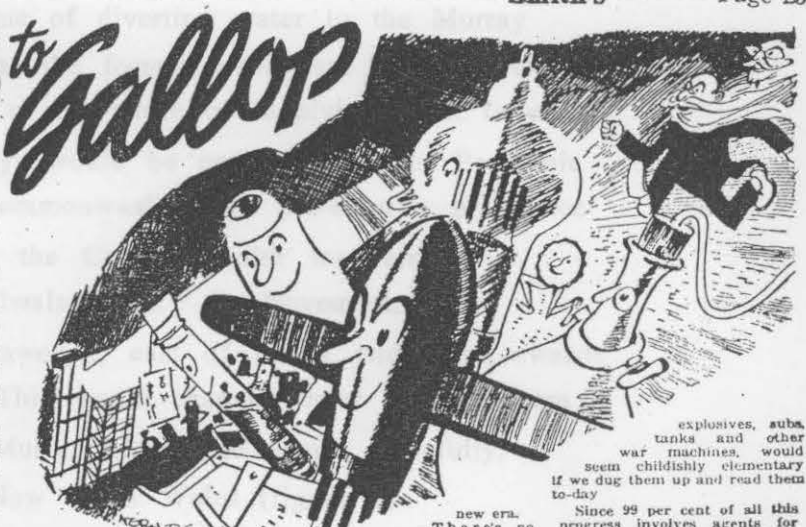
Not a scrap of polyvinyl, nylon, polystyrene, allylmar, polythene, ethyl-cellulose — group names which cover such a bewildering flood of new plastics that their

names run to hundreds, new substances discovered during the war and already in use for anything from shoes and telescopes to machinery.

Of all the synthetic rubbers which enabled Germany, Russia, Britain and America's motorized artillery and "infantry" to carry on, only one, neoprene, got into a Time Capsule. Buna S, the tyre rubber; thikols, for lining self-sealing petrol tanks, elastic plastics for insulation, which made radar and field radio in the tropics or polar regions possible, koroseal and other hard oil-resistant synthetic rubbers and so on, were not included (they were either curiosities or not yet discovered).

One could make this a catalogue, but it would be tedious. Plastic foam, velon, ardil, spun-seaweed, nylon, synthetic wools and other new textiles were missing, though the New York capsule included rayon, asbestos cloth and spun glass.

Looking at the huge scope of technical machinery and materials invented in World War II, it's obvious that 1939-1946 was a short span into which science



crammed its normal progress for 25 years.

Just possibly the capsule microfilm describing physics research up to 1938 may have mentioned Hahn's discovery of fission, the explosive atom-split of uranium 235 (made that year). If so, it got a few lines as a scientific curio.

In the eight years following the burial of the capsules, atomic bombs and atomic power resulted from that discovery of Hahn's, which inaugurated a

new era. There's no radar described in the capsules, no jet planes, nothing (except perhaps a note as an interesting curiosity) about penicillin, or remote control of rocket bombs, or "radio-sensed" AA shells, or bazookas, or the new malaria cures (paludrine, meta-chloridine, chloramino-quinoline).

The information on television color photography, incendiary bombs, flying, the electron microscope, atom-smashers, high voltage X-rays, mechanical "brains,"

explosives, sub-tanks and other war machines, would seem childishly elementary if we dug them up and read them to-day.

Since 99 per cent of all this progress involves agents for destruction, it looks as if we ought to get another up-to-date Time Capsule filled and buried before it is too late.

Otherwise people from the planet Venus, digging up the 1938 and 1940 capsules in AD 7000, won't get the right slant on our period, and won't fathom with what agencies Homo Sapiens so neatly wiped his species from the earth.



Even with their limited awareness of options now being considered, with their hopes for a Murray diversion, the Victorians were soon enthusiastically supplying design ideas to the Commonwealth.⁶ Brewster was, however, equally quick to reiterate his concerns about a Murray diversion. De-watering, ventilation and transport of men and machines to long and deep tunnels, with little easy access from above, "tend to indicate the impracticability of the whole proposal."⁷ (figure 2) Brewster had further doubts. He questioned the availability of any storage site on the upper Murray and doubted the value of diverting water to the Murray rather than to the Murrumbidgee as the former areas "are already well supplied."⁸ In fact, an assessment of the worth of supplying water to either the Murray or Murrumbidgee valleys would be canvassed by an Economic Investigation Committee of the Commonwealth.⁹ To pre-empt a preference for Murrumbidgee lands, however, the Commonwealth was already proposing an extension of the Mulwala canal.¹⁰ By November, a re-diversion canal running from Yarrawonga, east of Urana and then towards Narrandera, had been mapped.¹¹ This would channel water diverted from the Snowy to the Murray to the Murrumbidgee and would, hopefully, mollify the principal concerns of New South Wales (figure 3).

By late December 1946 the Commonwealth's investigation had produced a draft report that made a strong case for the viability and preferability of the Murray diversion. It maintained that "great power possibilities" existed and that the Murray diversion is "quite practicable" and "very economical" and warranted "complete investigation."¹² The investigation suggested that the advantages of the Murray diversion over the Murrumbidgee diversion

⁶. Bate to Loder, 30/7/46, NAA: *ibid*.

⁷. Brewster to Loder, 1/8/46, p. 3, NAA: *ibid*.

⁸. *Ibid*, p. 7.

⁹. Secretary, WC&IC to Economic Investigation Committee [?], 18/9/46, p. 1 and SR&WSC; "Particulars of Areas where irrigation development could be extended...", attached to letter from East to Coombs, 18/9/46, NAA: *ibid*.

¹⁰. Murdoch, T., to Loder, 28/6/46, NAA: *ibid*.

¹¹. Rough tracing attached to O. C. 1 Fd Sec. to Fitzgerald, 23/11/46, Australian Army, Survey Directorate, Australian Headquarters file 101-339, *Mapping Programme - Aust. Mainland - Special Surveys - Snowy R. Scheme*.

¹². Australia. Department of Works and Housing, *Report on the Engineering Aspects of the Snowy River Diversion to the Murray River Valley*, December 1946, p. 10 (as part 2 of Australia, Departments of Works and Housing and Post War Reconstruction, *Report on Proposals to Divert the Snowy River into the Murrumbidgee and the Murray Rivers*, Canberra (?), The Departments, June 1947). The finalised technical report was separately published (see below) and the final economic and agricultural report was published as part 3 of the June 1947 report.

Figure 2; "Longitudinal Section of Proposed Tunnel to Murray River", from Australia, *Facts and Figures*, December, 1947.

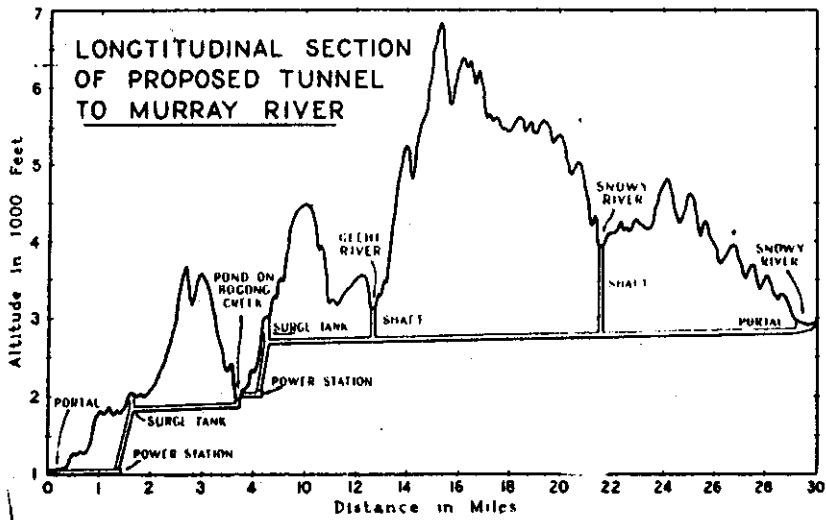
SNOWY WATERS

A committee consisting of two representatives from the Commonwealth Government and two each from the Governments of New South Wales and Victoria, with power to co-opt such other assistance as may be needed from the three authorities, was constituted unanimously by the conference of Commonwealth Ministers and State Premiers at Canberra in August to make a detailed investigation of a proposal to divert water from the Snowy River to the Murray River. Diversion of this water will permit establishment of hydro-electric power stations and increased supplies for irrigation.

The investigation will extend to the availability of a suitable site for a balancing storage on the Murray, upstream from the Hume Reservoir, and the construction of a diversion canal from the Murray to the Murrumbidgee River.

The committee was directed to report to a Premiers' Conference as early as possible, but not later than twelve months hence.

The whole scheme involves the construction of a tunnel through the Australian Alps. Roughly the direction of the tunnel will be east and west and its location about nine miles north of the highest point of the Australian Alps, Mount Kosciusko, which is about 7,300 feet high.



PLA

WATER CONSERVATION & IRRIGATION COMMISSION
SNOWY RIVER INVESTIGATIONS

SCHEME FOR DIVERSION INTO RIVER MURRUM AND REDIVERSION TO MURRUMBIDGEE VALLEY BY PUMPING (COROWA OFFTAKE)

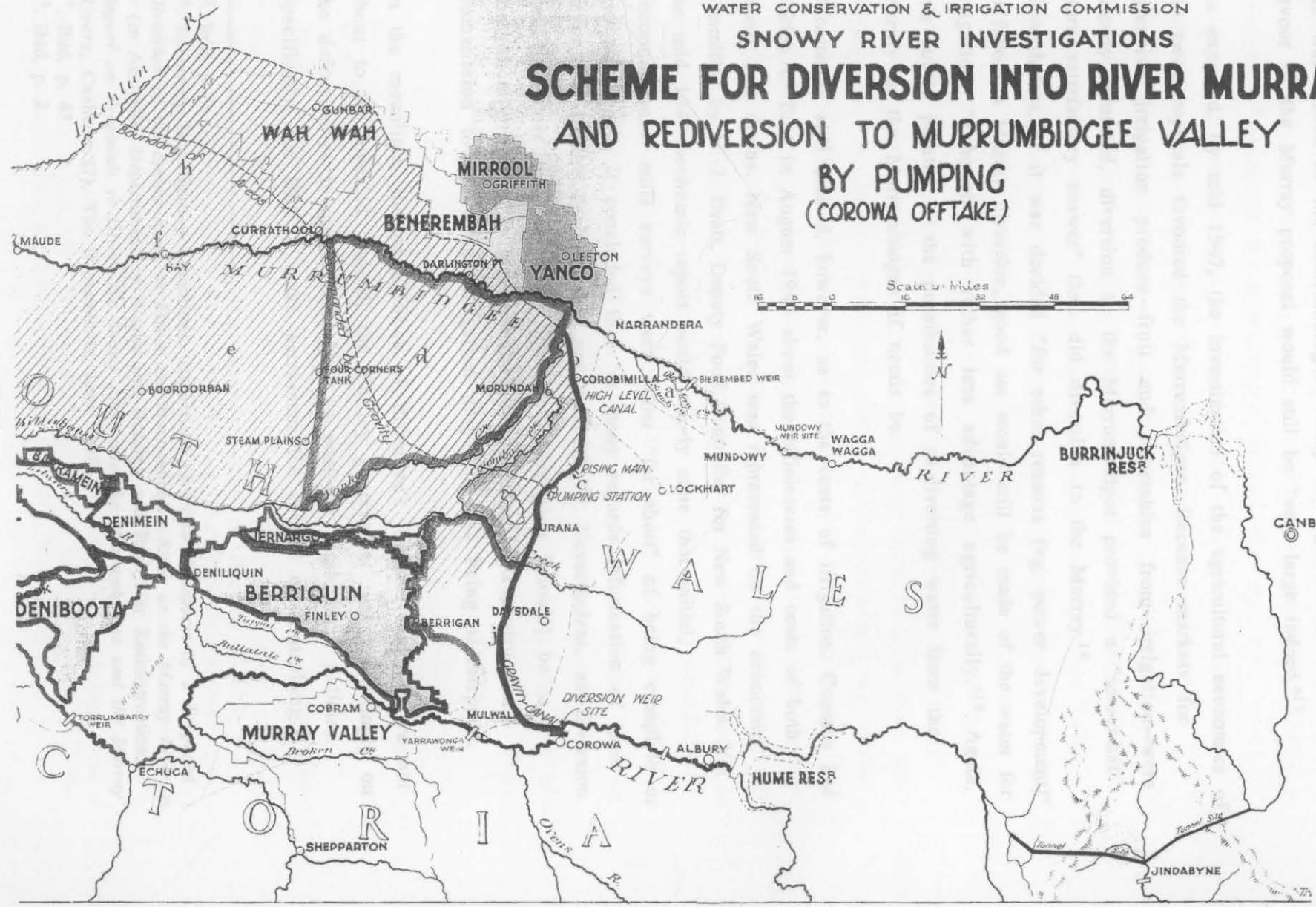


Figure 3: Map segment. From WC&IC, "Scheme For Diversion Into River Murray and Rediversion to Murrumbidgee Valley By Pumping." From NAA: AA1971 Box 1, File "Snowy River Committee 2", Snowy River Dossiers.

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in terms of power production were substantial; 450 megawatts compared to 46 megawatts would be generated. Thence, if it was found desirable to divert the water back to the Murrumbidgee Valley for agriculture, the balance in favour of the Murray proposal would still be "very large indeed."¹³

As expected, by mid 1947, the investigation of the agricultural economics of the two proposals favoured the Murrumbidgee. Because markets for intensive irrigation produce--fruit and vegetables from irrigation--were already saturated, diversion to the Murrumbidgee provided a "somewhat more satisfactory answer" than did diversion to the Murray.¹⁴

Nevertheless, if it was decided "for other reasons (eg. power development)" to favour a Murray diversion, good use would still be made of the water for irrigation, "although with rather less advantage agriculturally."¹⁵ Again, this subtly pointed to the possibilities of re-diverting water from the Murray to the Murrumbidgee if needs be.

Uncertainty still existed, however, as to the costs of irrigation. Coombs had written to East in August 1946 about the efficiencies and costs of both canals and drains. New South Wales was represented on the economic committee by G. J. Evatt, Deputy Food Controller for New South Wales. Yet the mid 1947 economic report could merely state that initial, 'reconnaissance' soils surveys were either "far short" of being complete or had not begun. It concluded that "in many regards information of great importance to the decision was not available."¹⁶ Nevertheless, as diversion would increase the availability of water, "diversion [should] be energetically pursued." The wariness of the Rural Reconstruction Commission towards large irrigation proposals was being sidestepped.

In the meantime, the possibilities of Rowntree's 'broader vision' were not about to be revealed. Indeed, the Chifley government was increasingly on the defensive as it sought to defend its post-war employment policies. Specifically, the Bill to make permanent the central or controlling

¹³. Ibid, p. 9.

¹⁴. Economic Investigating Committee, *Report on Agricultural Aspects of a Proposed Diversion of the Snowy River to Either the Murrumbidgee River or the Murray River*, p. 3 (in Australia, Departments of Works and Housing and Post War Reconstruction, *Report on Proposals to Divert the Snowy River into the Murrumbidgee and the Murray Rivers*, Canberra (?), The Departments, June 1947).

¹⁵. Ibid, p. 43.

¹⁶. Ibid, p. 2.

banking powers of the Commonwealth Bank had been firmly resisted since 1945. Then, on August the 13th 1947, the High Court found part of the legislation to be unconstitutional.¹⁷ The Court ruled that the Commonwealth "could not deny the States and public authorities the right of free choice in banking."¹⁸ Although not necessarily a decisive blow against governmental steering hopes for the economy, Chifley continued to believe that further challenges on the other sections would soon be mounted. Indeed, three days later, Chifley announced to a surprised then jubilant Cabinet that he now favoured nationalising the banks.¹⁹ The fear of privatised or restrictive credit regimes was still strong within Labor ranks. This sparked on-going controversy that resounded throughout the nation until 1949.

Three days later, at the Premiers' Conference of the 19th of August 1947, ways of proceeding with the Snowy Scheme were discussed. The issue was whether the two options warranted further investigation--and by whom. Latterly, the Commonwealth was pushing to convert its comparative investigations into a formal, planning role. Cain argued forcefully for a Murray diversion.²⁰ Similarly, the new Commonwealth Minister for Works and Housing, Nelson Lemmon, argued that industrial expansion justified an energy intensive Murray diversion and, in view of defence-related criteria, Commonwealth control.²¹ McGirr, who had replaced the retiring McKell, was not interested. Following Brewster's advice, he argued that the committee's preliminary investigations were incomplete as they had not thoroughly investigated the feasibility of the long tunnel. In line with his own expert and Ministerial advice, the feasibility of the re-diversion from the Murray to the Murrumbidgee needed further research as well.²²

¹⁷. Love, Peter, *Labour and the Money Power: Australian Labour Populism 1890-1950*, Melbourne, Melbourne University Press, 1984, p. 168-9.

¹⁸. Schedvin, C. B., *In Reserve: Central Banking in Australia, 1945-75*, Sydney, Allen and Unwin, 1992, p. 77.

¹⁹. Love, op. cit., p.169.

²⁰. "Statement made by Mr. Cain at Premier's Conference, Thursday, 21/8/47" and State Rivers and Water Supply Commission, "Snowy River Diversion, Murrumbidgee versus Murray" in *Snowy Rivers Historical File*, SR&WSC Library.

²¹. "Item No. 25 - Report on Diversion of Snowy River", p. 250, [notes from proceedings of meeting between Ministers and Premier's, 19/8/47], PRO: VPRS 1163/P, box 790, file 47/2716, *Snowy River*.

²². "Extract of Proceedings of Conference of Commonwealth and State Ministers held at Canberra - 19th August, 1947" (Document 2326), NAA: A 2618, Documents 2325 to 2330 and 2332 to 2343, *Minutes and Notes of C/Wealth/ State Meetings...*

Chifley was, however, quickly pushing on with the agenda. Given the political priority and tumult of bank nationalisation, Chifley "took the motion as agreed to and proceeded to the next business."²³ As McKell had already 'agreed', or had grudgingly acceded, to investigation by the Commonwealth, McGirr could do little other than offer a restive silence. Just as the Commonwealth had outflanked the State via regional development and by using its financial powers, now, with the determination and unity-of-purpose currently required within the Labor movement, Chifley prevailed. The Commonwealth and States Snowy River Investigation Committee, or "Main Committee" controlled by the Department of Works and Housing, was formally established. McGirr and his Cabinet would, however, be far from silenced by the Commonwealth, especially as Weir and others backing Brewster were far from satisfied.²⁴

This formal capture of control by the Commonwealth did much to encourage the Department's own investigations. More than ever they turned to consider the broader potentials. Developing power from the Snowy River waters was now "only part of a vast possible development" that should fit (as with McKell's earlier approach), into "a general master plan."²⁵ Lewis had, as mentioned, been interested in developing the Murray diversion at a *higher level* than from Jindabyne. This would involve a shorter tunnel to the Murray, reducing the cost and time required in developing a workable first stage. It would also reinstate more conventional power station design by avoiding hydro power stations discharging directly into intake pressure tunnels of the next stage.²⁶ These changes would also allow construction in stages and make tunnelling much easier, with shorter tunnels and with access available at the mid point.²⁷ Water would have to be pumped up to the higher tunnel, although most of the energy would be returned as the water gravitated down to the Murray from a greater height.

As Island Bend on the Snowy was a considerable distance to the 'south' (of a still speculative proposal for a dam site at Adaminaby), Rowntree concluded

²³. Lewis, 1971, op. cit., Appendix 8.

²⁴. "Snowy Waters; Statement By Mr. Weir", *Area News*, 22/8/47.

²⁵. Lewis, 1971, op. cit., Appendix 1, p. 3 & 4.

²⁶. Rowntree, "Notes on Future Investigations for Snowy River Diversion Proposals", 23/9/47, p. 2, NAA: MP 831/1, 1955/714 Part 2, *Snowy River Hydro Electric Development*.

²⁷. Ibid and Lewis, 1971, op. cit., Appendix 1, p. 1.

that "the Eucumbene could not be economically diverted into the Murray at the Island Bend level."²⁸ This was a lamentable outcome for him. Megatech hydro power needs large, high level storage, for it does not guarantee much in the way of replacement or adjunct power for coal without it. Spencers Creek, amongst an ancient moraine of the Upper Snowy, would also be investigated by way of attempting to secure high level storage along with Jindabyne. These would all combine, it was hoped, to provide adequate storage.

In a move highly significant for later developments, Rowntree went on to suggest a grouping of rivers into southern and northern groups; "if, as appears probable, the high level [Murray] diversion were found desirable, then the waters of the upper Eucumbene could be considered as a separate unit."²⁹ Thus, according to a 'master plan', which would review the power-potential of the whole area, a double pronged approach seemed to offer the best outcome for Rowntree. The southern grouping of rivers would include the Snowy, Geehi and Crackenback rivers. The Snowy and (Lower) Eucumbene--a tributary of the Snowy--would be dammed at Jindabyne and pumped up to a storage at Island Bend and then diverted to the Swampy Plains River, or the Upper Murray. The northern group included the (Upper) Eucumbene, Tumut and Murrumbidgee rivers and perhaps the Tooma "might be brought into this group or developed independently."³⁰ Rowntree preferred the Tooma for hydro development, but because of the loss to the Murrumbidgee, of Tumut and its own upper river flow, this was quickly discounted.³¹

By September 1947 at the latest, a new, combined Murray and Tumut diversion option had thus been sketched out by the Commonwealth. Crucially, it had *already* superseded the need for an expensive and controversial Murray to Murrumbidgee re-diversion. The Tooma being diverted into the Tumut would obviate the requirement for such a re-diversion. The Tooma would no longer flow into the Murray but to the 'northern' group of rivers and would thus provide such a 're-diversion' of Murray waters high up in the Alps.³² With such a new 're-diversion',

²⁸. Lewis, *ibid*, p. 21.

²⁹. Rowntree, 23/9/47, *op. cit.*, p. 2.

³⁰. Rowntree, *ibid*, p. 3 and Lewis, *op. cit.*, 1971, Appendix 1, p. 5.

³¹. Lewis, *ibid*, p. 22.

³². Rowntree, 23/9/47, *op. cit.*, p. 3.

however, much of the Snowy should go to the Murray. This would make up for the transfer of Tooma water from the Murray to Murrumbidgee basin. This was enhanced under the plan, too, as it grouped the Snowy within the southern group of rivers.

With many more pieces of the game available to it, the Commonwealth had created a crucial advantage. The strategic possibilities for the Department and for the Commonwealth were immense. It could territorially and hence politically outflank the States for this most strategically located development project. As Lewis advised Rowntree of Loder's advice upon receiving Rowntree's formal submission on the new options, "the Director General considers your latest suggestion...is best kept in the Department for the time being as it may have to be used as a counter later."³³

In the meantime, the Royal Commission into the SECV of 1946-7 had defended the right of the SECV to retain its 'apolitical', institutional autonomy, to avoid the "evils of patronage".³⁴ This disappointed the Cain government, which had preferred political or social controls. From September to November, especially in Victoria, the bank nationalisation controversy raged. The Opposition in Victoria managed to block supply in the Upper House and precipitated an election on the issue that saw the Cain government swept out of office. The anti-Dunstan, pro-coalitionists of Hollway (Liberal) and McDonald (Country Party) took power. This also boosted the confidence of the emerging Liberal Party, nationally. Chifley persisted, however, and the Banking Bill became law in late November.

With the coming to power of the new conservative State government, a rival hydro-electric project, an expanded Kiewa Scheme (from 119 to 289 megawatts), was favoured.³⁵ Being remote from the La Trobe Valley, the project supported rural electrification in the north of the State as well as the 'independent' fossil fuel policy. Extensive pipe and open race-line additions (150 miles in total) provided for a much greater *inter-catchment* transfer of water and larger dams along with 18 miles of underground

³³. Marginal note by Lewis to Rowntree on Lewis to Loder, 26/9/47, NAA: MP 831, 1955/714 Part 2, op cit. Also see Lewis, 1971, op. cit., Appendix 1, p. 2.

³⁴. Holmes, Jean, *The State Electricity Commission of Victoria: A Case Study in Autonomy*, MA Thesis, Department of Political Science, University of Melbourne, 1969, p. 231.

³⁵. "£25 Million Kiewa Plan Recommended", *The Argus*, 27/12/47, p. 5.

tunnels³⁶ (figure 4). The potential Snowy Scheme would, however, be in clear competition for labour and materials with an expanded Kiewa Scheme, a point subtly alluded to in the report.³⁷

The SECV's program for 'coal independence' by briquette production, was also strongly backed by the Royal Commission.³⁸ In March 1948, Victoria's State Cabinet announced plans to support the development of a new open cut mine at Morwell, along with two briquette factories, with provision to expand by two more.³⁹ As part of the broader plan the SECV decided to buy an inner-city power station from the railways, Newport A, and to feed it and other stations with briquettes.

This gained significant support by the Minister for Electrical Undertakings, Lienhop, who, by mid 1948, was doubting the ability of the Joint Coal Board to ensure that black coal was properly shared amongst the States.⁴⁰ In their on-going battle with BHP and other coal mine owners to win amenities and security, the New South Wales miners were on strike. This led to blackouts in New South Wales and with less frequency in Victoria. For Lienhop, "we have learnt by bitter experience that this State can never progress industrially so long as it is relying to such a major extent on imported fuel."⁴¹ A nearly three fold increase in briquette production was planned. In a defiant move against nationalised banking as well as the Joint Coal Board and Chifley, the amount of money the State government permitted the SECV to borrow was then quadrupled.⁴² Yet due to poor coal assaying and the introduction of fuel oil, difficulties would quickly mount for the Morwell project.

³⁶. State Electricity Commission of Victoria, *Report of the State Electricity Commission of Victoria on Extension of Kiewa Hydro-Electric Project From 117 Megawatts to 289 Megawatts and Matters Related to System Generating Capacity*, Melbourne, Govt. Printer, 1947. Also see Anon, "Revised Plan for Kiewa Hydro-Electric Development", *Electrical Engineer and Merchandiser*, January 15, 1948.

³⁷. SECV, *ibid*, p. 7. Also see Williams, H. H. C., *Kiewa Hydro Electric Scheme: Technical History*, Melbourne, SECV, 196? [Victorian State Library MS Collection], p. 19.

³⁸. The Royal Commission, quoted in Mathews, R., *Public Investment in Australia: A Study of Australian Public Policy Investment and Development*, Melbourne, Cheshire, 1967, p. 161

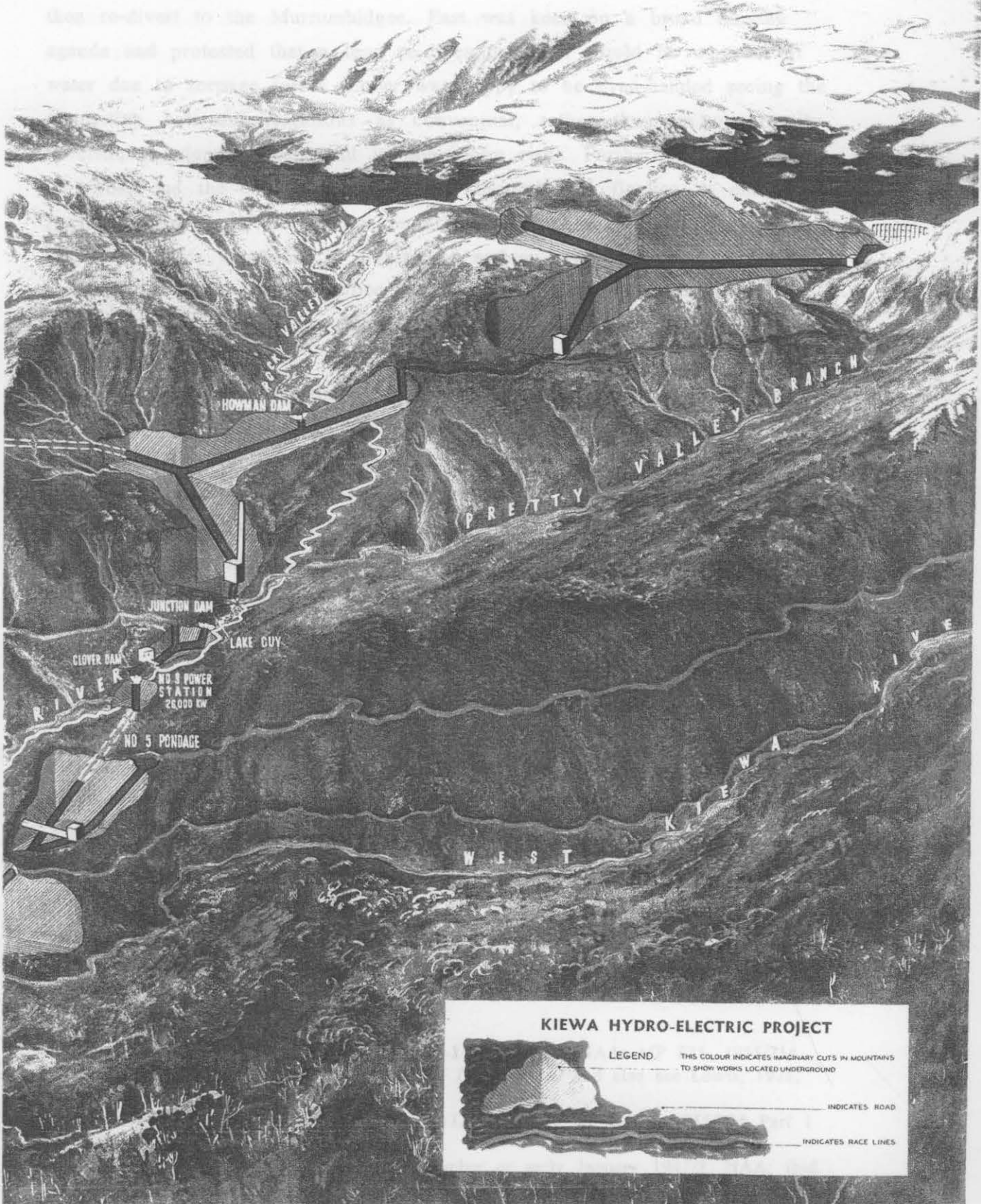
³⁹. "Developing Towns in Brown Coal Area", *The Argus*, 3/3/48.

⁴⁰. Lienhop, J. H., *Shaping Victoria's Destiny*, Melbourne, SECV, 1948, p. 3.

⁴¹. *Ibid*, p. 8.

⁴². Edwards, C., *Brown Power: A Jubilee History of the State Electricity Commission of Victoria*, Melbourne, SECV, 1969, p. 171.

Figure 4; Colour graphic, "Kiewa Hydro-Electric Scheme", in SECV, *Three Decades*, Melbourne, SECV, 1949, p. 124.



By December 1947, the first meeting of the Commonwealth and States Snowy River Investigation Committee or Main Committee had convened. New South Wales preferred a restrictive study, of how best to divert to the Murray then re-divert to the Murrumbidgee. East was keen on a broad ranging agenda and protested that a long re-diversion canal would be wasteful of water due to seepage losses. Loder was happy to be even-handed seeing the opposition between irrigations as convenient, rather than an opportunity to critique irrigation costs and its long term risks. Further to-ing and fro-ing arose and the committee took much discussion to finalise its charter. Eventually, with Victoria's representatives sympathetic to the Commonwealth's approach, a broader if ambiguously crafted charter was eventually agreed. The committee would "evaluate all the facts necessary"⁴³ for a decision on where the Snowy should go.

Brewster was soon requesting further details as pumping plant costs were being calculated.⁴⁴ The amounts of water that the Commonwealth believed would be made available and, hence, to be re-diverted via the canal, as well as its peak rate, was sought. Loder was agreeable, although he hedged on many of the details which Brewster was seeking.⁴⁵ Suffice to say that Brewster was not informed that a Tooma-Snowy exchange of waters or a Tumut diversion was being contemplated, nor that it could be regarded as another means of achieving the same ends, of retaining a high hydro-electric yield whilst also directing (regulated) water to the Murrumbidgee. This concept was still under wraps, of course, within the Department of Works and Housing. Indeed, Loder would have welcomed Brewster's research program as it effectively kept him busy and away from exploring other options more likely to be favourable to New South Wales.

Meanwhile, by way of an Australian Broadcasting Commission radio forum, various members of the public debated the Snowy Scheme.⁴⁶ More broadly, writers and artists were also debating the 'mechanical' or quantitative imperatives. That is, as competing, 'full utilisation' strategies were

⁴³. Snowy River Committee; Minutes of the 1-2/12/47, p. 2, NAA: MP 831, 1955/714 Part 1 (file 8/9), *Snowy River Hydro Electric Development* and also see Lewis, 1971, op. cit., Appendix 2, p. 2.

⁴⁴. Secretary, WC&IC (Messner) to Bagot, 16/12/47, NAA: MP 831/1, 1955/714 Part 1 (file 3/9), op. cit.

⁴⁵. Draft replies to Brewster, circa late December or early January 1947/8, NAA: ibid.

⁴⁶. Australian Broadcasting Commission, "The Best Use of the Snowy River", *The Nation's Forum of the Air*, Vol. 4, No. 3, January 21, 1948, p. 4-5.

emerging in Australia, Sigfried Giedeon, in the USA, was wondering how to effect a more balanced relation between systems and society in his *Mechanization Takes Command*, first published in 1948. Similarly, the expatriate artist, James Gleeson, was considering the 'machine age', musing about an excessively mechanical being, gathering power.

In his *The Infernal Machine* (figure 5), of 1948, a body-machine hybrid evokes unsettling processes of 'being transformed'. The cyborg's ear-brain is a mere cog-cam connection caught in its own mechanical cycles. With cable knots at mouth and throat, it is asleep in its own coils whilst dreaming of (mere) electro-mechanical procreation. Steel glands for post-war reconstruction predominate in this dystopic landscape, reduced to a mechanically colonised or, perhaps, 'populate or perish' imperative. What seems to be...is! Within a dark and dissonant Blakeian cove, a 'Newton's Sleep' is projected to characterise the emerging technoculture. Ironically, the concurrent Australian Broadcasting Commission forum was unaware that broader visions were being prepared for the Australian Alps.

Soon the Hydro Electric Sub Committee met to constitute its own role. Consisting of Lewis as Chairman and Rowntree (Department of Works and Housing), Olsen (SECV) and Dann (Elcom), it heard Lewis immediately suggest that the terms set by the Main Committee provided scope for expanding upon hydro-electric designs.⁴⁷ In fact, Lewis began by raising the possibility of a diversion down the Tumut. This was couched in terms of a need to increase the amount of power generated by the existing Murrumbidgee diversion option, nothing more.⁴⁸ Further, as the option faced the difficult task of diverting the Snowy all the way to the Tumut, Rowntree suggested that it looked unlikely. During this and the next meeting of the sub-committee, Rowntree and Lewis showed only qualified interest in a Tumut diversion.

At the next meeting in early January, Rowntree produced a plan and tentative estimates. Via a storage on the Eucumbene River (a tributary of the Snowy), they described flows and tunnel distances for a higher level diversion of Snowy waters to the Tumut. Again, a two stage, northern and southern scheme was not mentioned, merely the possibility that the Snowy

⁴⁷. "Minutes of Hydro Electric Subcommittee", 22/12/47, p. 1, NAA: MP 831, 1955/714, Part 1 (file 8/9), op. cit.

⁴⁸. Ibid, p. 3.

Figure 5; Painting by James Gleeson, "The Infernal Machine" (1948) reproduced in Art Gallery of New South Wales, *James Gleeson and Robert Klippel: Madame Sophie Sesostoris (a pre-raphaelite satire) 1947-48*, Sydney, Art Gallery of NSW, Australian Collection Focus Series No. 2, 1998-9.



Construction of the of May, 1948", NAA: MP 33, 193524 Part 1 (file 33), op. cit.

75. Ibid and also see Lewis, 1974, op. cit., p. 27.

76. Snowy River Commission, "Notes on Meeting, 10th of May, 1948", p. 5-10, NAA: MP 33, 193524 Part 1, file 33), op. cit.

could go down the Tumut, even as this was an option the Commonwealth engineers had already discounted, at least without the Tooma-Snowy water swap. Conveniently, Olsen also moved to quickly throw doubt on the prospect by pointing to the distance between this proposed dam and the Upper Snowy,⁴⁹ which suited Lewis and the Commonwealth. By January 1948 for Lewis therefore, "the Tumut diversion scheme then appears to be right out of the question." Olsen added that "from our [the SECV's] point of view I think you have proved that this proposition is not much good." Jindabyne was the only realistic location for diversion, Olsen continued. Lewis was even bold in disparaging the possibilities of a Tumut diversion, not wanting to "waste our energies on unnecessary investigation work." Thence, "the question is, can we see any better proposal?"⁵⁰

On the other hand, Dann, the New South Wales representative, was becoming increasingly suspicious. A viable prospect seemed to be emerging on the Tumut. Again, however, Rowntree quickly rejected this due to the lack of storage. Similarly, Olsen and the chairman, Lewis, were "definitely" against it although "if we see any reason for coming back to it we could take it up again."⁵¹ The progress report prepared by Lewis and submitted to the Main Committee meeting in May 1948 also dismissed the Tumut option from within the narrow, two-scheme comparative approach.⁵² On the 'major' issue, the interim report expressed confidence in the Murray Scheme and, further, the available power "will be somewhat greater than previously indicated."⁵³ As also reported, the search for alpine valley storage had (apparently) moved away from the possibilities on the Eucumbene, with that on the Upper Snowy, at Spencer's Creek, now the focus of attention.

The focus of the Main Committee would, likewise, be away from what could be done with the Upper Tumut. Again, controversy was being choreographed by the Commonwealth, centring on the viability of the re-diversion proposal.⁵⁴ The forthright East was now threatening to write a

⁴⁹. Hydro Electric Sub-Committee, "Notes of Meeting...", 8/1/48, p. 1, NAA: *ibid*.

⁵⁰. *Ibid*, p. 2.

⁵¹. *Ibid*. At this stage in Lewis' account, he emphasises the lack of charter given to the Sub-committee and the limited time available (Lewis, 1971, *op. cit*, p. 26).

⁵². Lewis [?]; "Snowy River Investigations. Notes on Work of Hydro-Electric Sub-Committee to 7th of May, 1948", NAA: MP 831, 1955/714 Part 1 (file 3/9), *op. cit*.

⁵³. *Ibid* and also see Lewis, 1971, *op. cit.*, p. 27.

⁵⁴. Snowy River Committee, "Notes on Meeting...10th of May, 1948", p. 9-10, NAA: MP 831, 1955/714 Part 1, file (3/9), *op. cit*.

minority report if such re-diversion was seriously contemplated. Brewster was also techno-politicking. He was actively denying that a dam on the Tumut was feasible. This would preclude any Tumut diversion and hence require the re-diversion costs to be included in the power-intensive option.⁵⁵ Seven months later he would qualify his view that Blowering was an unsuitable site for an earth fill dam.⁵⁶

Brewster and the New South Wales water lobby then changed tack, proposing a compromise design. This design was to form the basis of the argument put to the 'monster rally' of mid August (see below). It persisted with the Murrumbidgee diversion but added possible hydro electric developments on the Upper Snowy, Upper Tumut and elsewhere to add power to the proposal. It was dutifully adopted, especially as Brewster was encouraging the Association by suggesting that the Commonwealth's engineers were worried over the (apparently) "terrific costs" of the Murray (plus re-diversion) option.⁵⁷

In the meantime, Olsen had produced a report on the greater importance of water for power and on the value of employing race-lines. The irrigation authorities, in league with the politicians, had for too long avoided a marginal cost basis by which to justify expenditure on irrigation works. He noted that, for example, East's *Realities of Reconstruction* justified expenditures merely according to "increases in business activities and in land values."⁵⁸ Olsen characterised such argument as relying upon "Irrigation Nebula"--they did not consider what investment opportunities would be foregone by such expenditures.

Olsen was not only emphasising a claim for water for power, however, he was seeking to include the crucial Upper Tooma into his southward flowing design. Olsen was continuing his work on the Murray option and was developing a Limestone Creek and similar options that, in a similar way to

⁵⁵. Ibid, p. 9. This would also be re-iterated by the MVWUA in a new publication *Water for the Thirsty Land; Facts About the Snowy Diversion Proposals*, Leeton, The Association, 1948.

⁵⁶. Lewis, 1971, op. cit., p. 30.

⁵⁷. Killen to Gibson, 14/6/48 (and pamphlet outlining new compromise proposal), CSUA RW3/4/4011. Letter also as Document 1843 in NAA: A2618 Documents 1822 to 1843, *Articles on:- Flora & Fauna...*

⁵⁸. Olsen, T, "Notes on the Relative Importance of Irrigation and Water Power", (circa 12/7/48), p. 3 (quoting East, Ronald, *Realities of Reconstruction*, No. 11, p. 12), NAA: MP 831, 1955/714, Part 1 (file 2/9), op. cit.

the Kiewa development, applied long race-lines, this time linked into his Snowy-Murray scheme. Indeed, as Olsen's designs gradually began to catch up to the Commonwealth's approach, he realised that a larger scheme would allow the Tooma River to also be 'captured'. That is, just as the Commonwealth engineers had realised, "to make it pay depends largely on how big the scheme is."⁵⁹ If the brief could be so extended by Olsen then, in turn, Dann was again encouraged to insist that this is "just why I think this Tooma proposition should be investigated as part of the Murrumbidgee scheme."⁶⁰

As the States had realised that the Tooma could go either north or south, by August 1948 they were now close to appreciating what the Commonwealth had waiting in the wings. With time also running out, and political pressures still coming forward, especially from New South Wales, Rowntree thereupon ended his silence. He admitted that he had been hoping New South Wales might claim the Tooma. This could have initiated, however, a new round of trade-offs for the Snowy.⁶¹ After further discussion of this break into new terrain, Olsen objected to such a scenario, but Whitfield, from New South Wales, was, as expected, pleased as he realised that "by harnessing the Tooma and the Tumut...New South Wales would get almost the same amount of water"⁶² as it would from a simple diversion of the Snowy to the Murrumbidgee. Crucially, as well as seeking to enlist the States, the result of the High Court challenge was also about to be released. The Commonwealth was signalling its intention to proceed, regardless.

The Hydro Electric Sub Committee then decided that a short, or preliminary, report should be prepared for the meeting of the Main Committee on the forthcoming Monday. It primarily addressed their current thoughts on the two main proposals (figure 6). A Murray proposal had been prepared; a project of 440 megawatts with load factor of 40%. Power developments down the Murrumbidgee had also been elaborated. The hitherto hidden option which the Commonwealth engineers were working on was then modestly canvassed in a mere four lines:

⁵⁹. Hydro-Electric Sub-Committee, "Meeting...4th and 5th August, 1948", p. 22, NAA: MP 831, 1955/714 Part 1 (file 8/9), op. cit.

⁶⁰. Ibid.

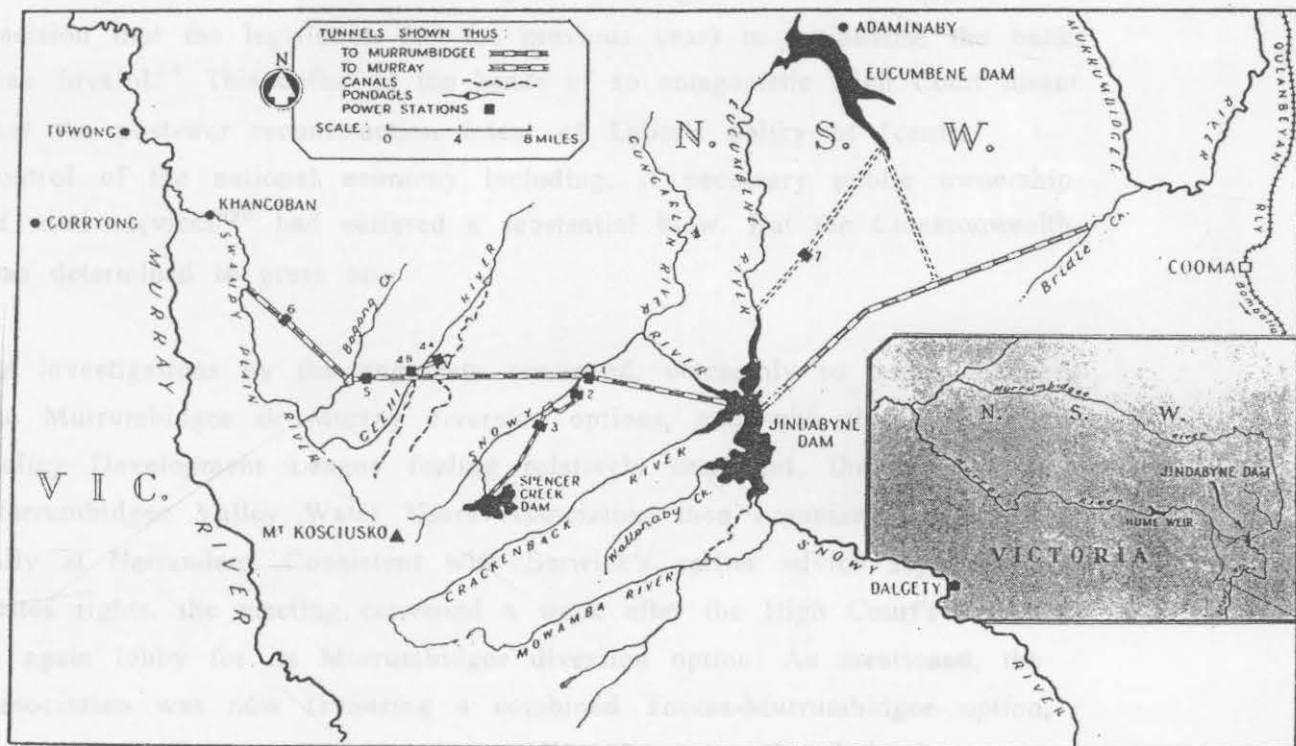
⁶¹. One also fraught with difficulties due to the pre-existing River Murray Agreement.

⁶². Hydro-Electric Sub-Committee, "Meeting...4th and 5th August, 1948", p. 22, NAA: MP 831 1955/714, Part 1 (file 8/9), op. cit.

Figure 6; Plan from "Snowy Waters", in Australia, *Facts and Figures*, December 1947.

... for the combined development of the Eastwattle, Tumut, Toowoomba and Upper Murrumbidgee areas, carrying the combined waters down the Tumut Valley has been envisaged, and it is hoped to have time to give this at least preliminary consideration before presenting the report.²⁷

The (full) Main Committee was then informed they were given a verbal summary of the report and hence of the new proposal.²⁸ This was tentatively advanced on the same day as the High Court announced its



whose secretary Vernon Lawrence addressed the meeting calling for proposals to be examined (as the Tao Long) in the light of "cold logic, according to the [sic]", the Association was more intent on political action, and on holding celebratory 'machine parades' (Figure 7). Indeed, the President of the Association, Mr. Killen, accused Lawrence of issuing a statement prior to the rally designed to dissuade attendance. Lawrence was

²⁷ Rowland, "Snowy River Investigations. Hydro-Electric Sub-Committee. Notes on Progress of Work to 26th Aug., 1945", NAA, MP 431, 1925/714, Part 1 (file 37), op. cit.

²⁸ Snowy River Committee, "Notes on Meeting... 12th August, 1945", NAA, MP 431, 1925/714 Part 1 (file 37), op. cit.

²⁹ Law, op. cit. p. 177.

³⁰ Callaghan, E., *The Politics of the High Court*, St Lucia, University of Queensland Press, 1967, p. 148.

A power scheme for the combined development of the Eucumbene, Tumut, Tooma and Upper Murrumbidgee areas, carrying the combined waters down the Tumut Valley has been envisaged, and it is hoped to have time to give this at least preliminary consideration before presenting the report.⁶³

The (full) Main Committee was then informed: they were given a verbal summary of the report and hence of the new proposal.⁶⁴ This was tentatively advanced on the same day as the High Court announced its decision that the legislation (of the previous year) to nationalise the banks was invalid.⁶⁵ This defeat at the hands of an antagonistic High Court meant that the post-war reconstruction intent of Labor's policy of "central control of the national economy including, if necessary public ownership of vital services"⁶⁶ had suffered a substantial blow. But the Commonwealth was determined to press on.

As investigations by the engineers continued, ostensibly to decide between the Murrumbidgee or Murray diversion options, and with the Murray Valley Development League feeling relatively confident, the Murrumbidgee Valley Water Users Association then organised a formidable rally at Narrandera. Consistent with Barwick's earlier advice supportive of States rights, the meeting convened a week after the High Court's decision to again lobby for its Murrumbidgee diversion option. As mentioned, the Association was now favouring a combined Tooma-Murrumbidgee option, unaware of other possibilities. And, unlike the approach of the League, whose secretary Vernon Lawrence addressed the meeting calling for proposals to be examined (à la Tom Lang) in the light of "cold logic...according to the facts", the Association was more intent on political action, and on holding celebratory 'machine parades' (figure 7). Indeed, the President of the Association, Mr. Killen, accused Lawrence of issuing a statement prior to the rally designed to dissuade attendance. Lawrence was

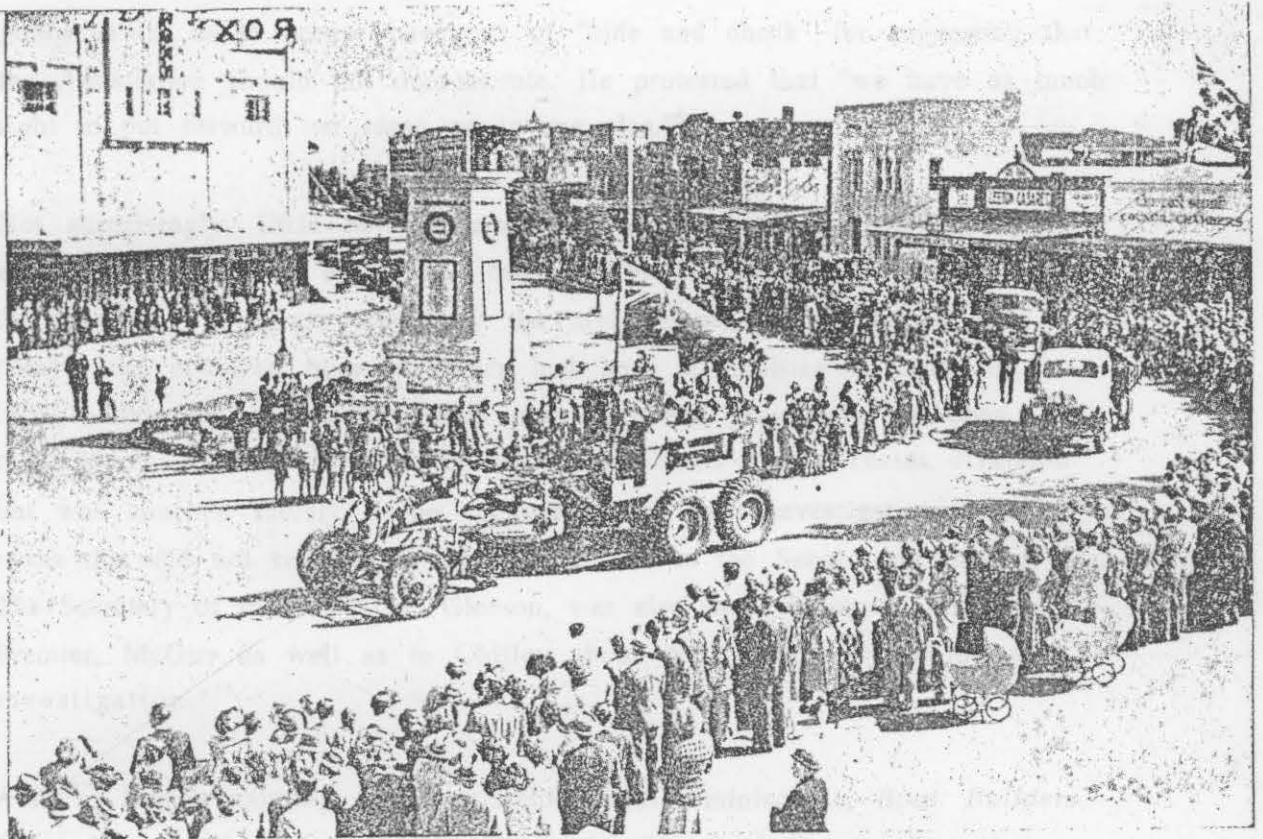
⁶³. Rowntree, "Snowy River Investigations. Hydro-Electric Sub-Committee. Notes on Progress of Works to 6th Aug., 1948", NAA: MP 831, 1955/714, Part 1 (file 5/9), op. cit.

⁶⁴. Snowy River Committee, "Notes on Meeting...12th August, 1948", NAA: MP 831, 1955/714 Part 1 (file 3/9), op. cit.

⁶⁵. Love, op. cit., p. 177.

⁶⁶. Galligan, B., *The Politics of the High Court*, St Lucia, University of Queensland Press, 1987, p. 148.

Figure 7; Photograph of main street, Leeton, circa late 1940s early 1950s, from The Leeton and District Progress Association, *Leeton, The Garden of the Riverina*, Leeton, The Association, 1957.



Monument bearing names of Fallen Soldiers in centre of Town

⁶⁴ "Highly Successful Rally Demands Action on Suez", *The Albury Banner and Wodonga Express*, 29 August, 1945, p. 18.

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

⁶⁸ Citation to McGee, 23/8/48 (see Volume 7), NAA: A4191, Box 1, Suez River Donations.

suggesting that "the demonstration should be abandoned and the matter left to the investigating committees."⁶⁷ Killen took Lawrence to task for attempting to convince people not to attend such a political meeting, going on to suggest that "if a decision was made against the Murrumbidgee, the matter would be taken further, if necessary over to the courts."⁶⁸ The New South Wales Minister for Agriculture, Mr. Graham, also joined the battle, going so far as to accuse Lawrence of "hide and cheek" for suggesting that the Association should not demonstrate. He protested that "we have as much right to put forward our ideas as anyone else."⁶⁹

Not surprisingly, little new information was forthcoming from the engineers. Senator W. P. Ashley, Minister for Supply and Shipping, read to the meeting a progress report by the investigators. It maintained that delays had occurred because "there had been difficulties in obtaining reliable data on matters for which such data had previously not been required."⁷⁰ This perhaps hinted at the combined Tooma-Tumut diversion but was couched merely to be consistent with their investigations and in terms that did not reveal the new possibilities to the Senator or anyone else. The Secretary of the MVWUA, Gleeson, was also soon writing to his State Premier, McGirr as well as to Chifley about the "indefinitely prolonged investigation."⁷¹

Akin to Boyd's painting of an autarchic, rural reminiscence, *Boat Builders, Eden, New South Wales* of 1948 (figure 8), Gippsland Country Party interests were also responding, re-iterating their own, New States approach. Relatedly, on the 24th of August 1948, local residents from the Eden area met, coincident with the Premiers' Conference. The community gathered to support a Victorian (Hollway and Kent Hughes) inspired resolution that Eden and Two Fold Bay should become part of Victoria. This alignment was, in effect, with the coalition government of Victoria and against New South Wales "which had had the port for almost 150 years and had done nothing

⁶⁷. "Huge Narrandera Rally Demands Action on Snowy", *The Albury Banner and Wadonga Express*, 20 August, 1948, p. 18.

⁶⁸. Ibid.

⁶⁹. Ibid.

⁷⁰. Ibid.

⁷¹. Gleeson to McGirr, 23/8/48 (see Volume 1), NAA: AA1971, Box 1, *Snowy River Dossiers*.

Figure 8; Painting by Arthur Boyd, "Boat Builders, Eden, New South Wales 1948" (tempera on board) from Philipp, F., *Arthur Boyd*, London, Thames and Hudson, 1967.



the recently unveiled Upper Tootal possibilities—over 12 months after Rowntree had formulated his ideas and with only four weeks now remaining for the completion of their report. Lewis drew out the

¹⁵ "Eden anxious to become part of Victoria", *The Argus*, 25/3/48.

¹⁶ Bernard F. Kent Hughes, South Melbourne, Macmillan, 1972, p. 133.

¹⁷ *Bender Morning Mail*, 25/3/48 quoted in "Murray Valley Development", *Murray Valley Newsletter*, Vol. 3, No. 3, Oct. 15, 1948, p. 67.

¹⁸ "NEVDE Policy on Snowy River When Investigation Completed", *Kangaroo New Times*, 30/4/48, p. 1.

¹⁹ "No War Over Snowy Diversion", *Bender Morning Mail*, 26/3/48.

²⁰ *Annals "Snowy White River"*, *Canberra Affairs Bulletin*, No. 13, Vol. 2, Sept. 13, 1948.

so far."⁷² A Royal Commission was again called for by Victoria's coalition government to investigate these proposals.

Concurrently Kent Hughes, a Liberal Minister for Electrical Supply and staunch anti-Communist, was negotiating via the Premiers' Conference for more coal for Victoria from Coal Board allocations (and soon ordering coal from Britain and India).⁷³ Indeed, the development of the Morwell open cut and electrified railway to Central Gippsland was linked to this move to claim East Gippsland. The Liberal State Council also carried a motion calling for the full development of the Murray Valley Region, seeing it as a way of encouraging both agriculture and industry.⁷⁴ The Country Party in Victoria still seemed willing to split from the Liberals however, who seemed far too eager to swallow their party.

The Murray Valley Development League was showing the strains of complex political allegiances. Greenwood from Kerang, an area which stood to gain further water, felt "very strongly that sooner or later, this MVDL must take a definite attitude. We've been sitting on the rail for too long, and the other fellow isn't."⁷⁵ Yet Padman continued to hope that the League's attitude was that "simply we want a full investigation of the two schemes...and when the investigation is made and all the facts available, that it be decided on its merits."⁷⁶ More broadly, however, even as the *Current Affairs Bulletin* of September 13th sought to advance the issues, it too, like the previous ABC forum, was hopelessly behind what the experts were now considering, as they had now long moved beyond a simple comparison.⁷⁷

The Hydro Electric Sub Committee meeting of the 30th of August turned to the recently unveiled Upper Tumut possibilities--over 15 months after Rowntree had formulated his ideas and with only four weeks now remaining for the completion of their report. Lewis drew out the

⁷². "Eden anxious to become part of Victoria", *The Argus*, 25/8/48.

⁷³. Howard, F., *Kent Hughes*, South Melbourne, Macmillan, 1972, p. 133.

⁷⁴. *Border Morning Mail*, 25/8/48 quoted in "Murray Valley Development", *Murray Valley Newsletter*, Vol. 3, No. 8, Oct. 15, 1948, p. 67.

⁷⁵. "MVDL Policy on Snowy River When Investigation Completed", *Kerang New Times*, 3/9/48, p. 1.

⁷⁶. "No War Over Snowy Diversion", *Border Morning Mail*, 26/8/48.

⁷⁷. Anon; "Snowy; Whose River?", *Current Affairs Bulletin*, No. 13, Vol. 2, Sept. 13, 1948.

importance of the proposed dam on the Eucumbene.⁷⁸ Rowntree outlined his 'broad approach' to the problem. It was a way of using the whole of the water from the Australian Alps, providing a solution for developing power by constructing a dam on the Eucumbene that was "sufficiently large to adequately control the whole of the Tooma and Tumut rivers." This left a small opening for Olsen. Both the Tooma and the Tumut could now be taken "round to the Murray...if we are looking for the best possible [power] development." Lewis then firmed in his opposition to the race-line approach of Olsen, suggesting that more power would be available through the joint approach.

Loder, as the Chairman of the Main Committee, then wrote enthusiastically to the others about the apparently new proposal, "recently" investigated. It was of "such importance" that all Committee members should be "immediately" informed of its content.⁷⁹ The importance of a new, large, upper level storage just south of Adaminaby, *for both* irrigation and power development, was again emphasised. It would greatly improve the power prospects of a Tumut option and offered "the best solution to the adequate regulation of the upper Tumut waters."⁸⁰ Consequently, Lewis now moved quickly to enlist the States, maintaining that "this scheme meets all requirements: both those of the power authorities and those of the irrigation people."⁸¹ Again, regardless of any High Court decision, the Commonwealth with its financial powers, would seek to push on (figures 9 & 10).

Bate of the SECV responded circumspectly. Given the snub to Olsen's designs and its assumptions about the need for race-lines, Bate warned Loder that:

...the degree of firmness of the power must be carefully considered... development at relatively low load factor...presupposes that to cover years of deficiency...reserves of fuel will be available.⁸²

⁷⁸. Hydro-Electric Sub-Committee, "Meeting...30th August, 1948", p. 13ff, NAA: MP 831, 1955/714 Part 1 (file 8/9), op. cit.

⁷⁹. Loder to Main, 7/9/48, NAA: MP 831, 1955/714 Part 1 (file 2/9), op. cit.

⁸⁰. Ibid.

⁸¹. Lewis, 1971, op. cit., p. 34.

⁸². Bate to Loder, 9/9/48, NAA: MP 831, 1955/714 Part 1 (file 5/9), op. cit. Also see Olsen's [?] letter of the 14/9/48 on the same file.

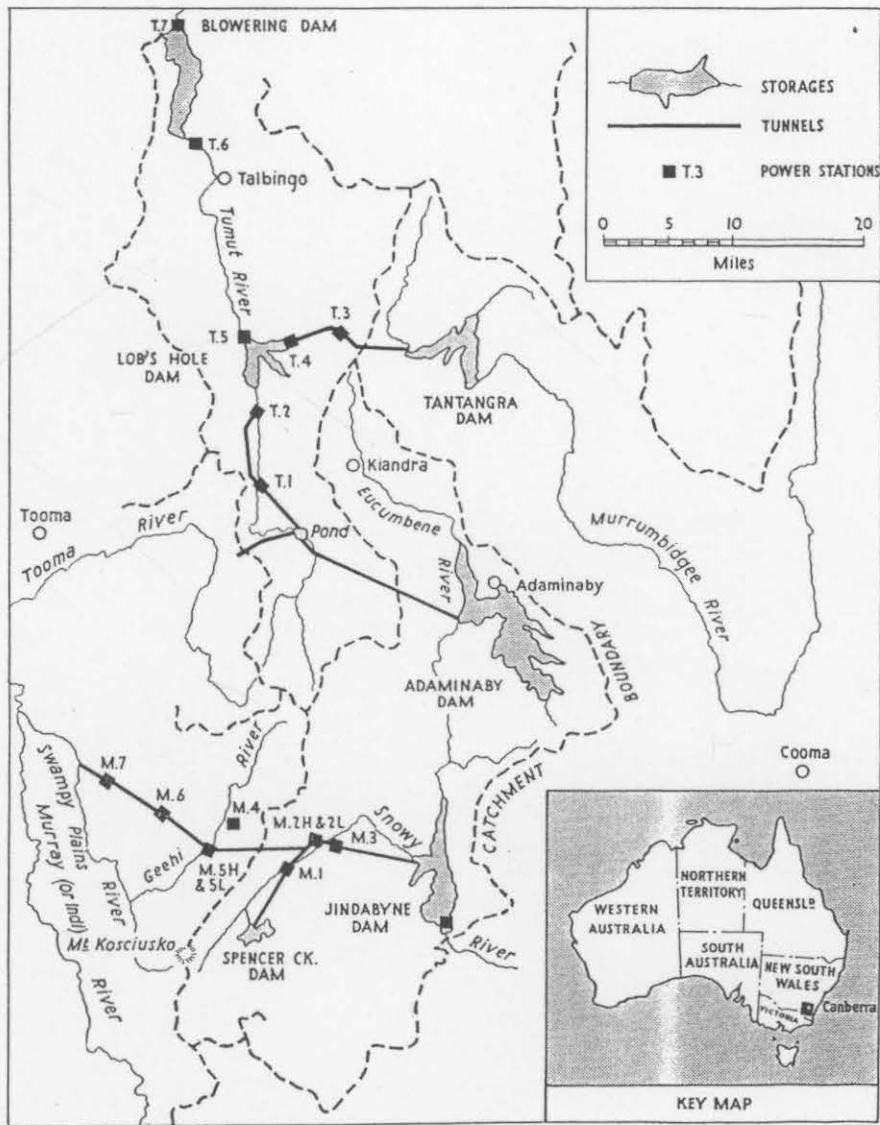
Figure 9; Cartoon by Hallett, Charles, "The Lodge - Looking Well Ahead" (1949?), (pen, ink & wash), NLA PIC R8855.

Fig. 9 (below): Map of proposed Snowy Mountains irrigation and hydroelectric scheme. Two developments are involved: (1) The diversion of 55,000 cu ft of water from the Snowy Mountains and Toots Creek to the Snowy Falls, and thence to the Blue...



Figure 10; "Map of Proposed...Scheme", *Water Power*, Vol. 3, No. 3, March 1951, p. 93.

Fig. 4 (below): Map of proposed Snowy Mountains irrigation and hydro-electric scheme. Two developments are involved: (1) The diversion of 565,000 ac. ft. of water from the Eucumbene and Tooma Rivers to the Tumut Valley and thence to the Murrumbidgee River, with main storages at Adaminaby, Lob's Hole, Tantangra and Blowering, and seven power stations T.1 to T.7, having a total installed capacity of 1,180,000 kW; (2) The diversion of 400,000 ac. ft. of water from the Snowy River to the Murray River with main storages at Spencer Creek and Jindabyne, and nine power stations (Nos. M.1, M.2H, and 2L, M.3, M.4, M.5H, and 5L, M.6 and M.7), having a total capacity of 1,680,000 kW



Victoria's reliance upon 'imported' coal meant, again, that it was vulnerable to what was happening in the black coal mines of New South Wales. Angry coal workers, calling for improved conditions by resisting potentially dangerous and labour displacing machines, were seeking to keep up with burgeoning demands. Strained industrial relations and calls for nationalisation of coal mining continued.⁸³ In such circumstances, Bate was loathe to rely upon black coal to supply Newport power station *and to make up for hydro shortfalls*. The proposed scheme needed to produce 'demand' or guaranteed supplies of power if it was to stand alone and thence meet Bate's conditions for enhancing coal independence. In short, development of briquetting at Morwell (and Kiewa hydro) was still preferred by the SECV (figure 11).

Brewster's initial response was positive, softening his line on Blowering; it would now be possible "to reach about 800,000 acre feet [of storage] without great difficulty."⁸⁴ But it was not long before he returned to the game of bargaining with the Commonwealth. He suggested a further counter-proposal--what came to be called the 'Brewster Scheme'--which was a modified Commonwealth proposal plus an intact Jindabyne-Murrumbidgee diversion.⁸⁵ With the support of his Acting Premier, Baddeley, Brewster was seeking to push on with (the first stage) of the Murrumbidgee diversion.⁸⁶ Amongst all the politicking and comparisons of rival proposals, however, the soil surveys were still to be done.

The conservative coalition forces were, like the Commonwealth, seeking ways to join both sides of the water-power debate. R. G. Casey, now President of the Liberal Party, speaking at a Federal Council policy committee meeting, favoured massive irrigation development. He had also toured the TVA and had at one time favoured the use of "atomic explosions to blast a canal from Spencers Gulf to Lake Eyre and thereby change the climate of central Australia."⁸⁷ The other item on the agenda of the meeting was a proposal to draft legislation to ban the Communist Party, if

⁸³. See for example, "Reorganisation Plans of the Coal Board", *Common Cause*, 4/9/48, p. 1.

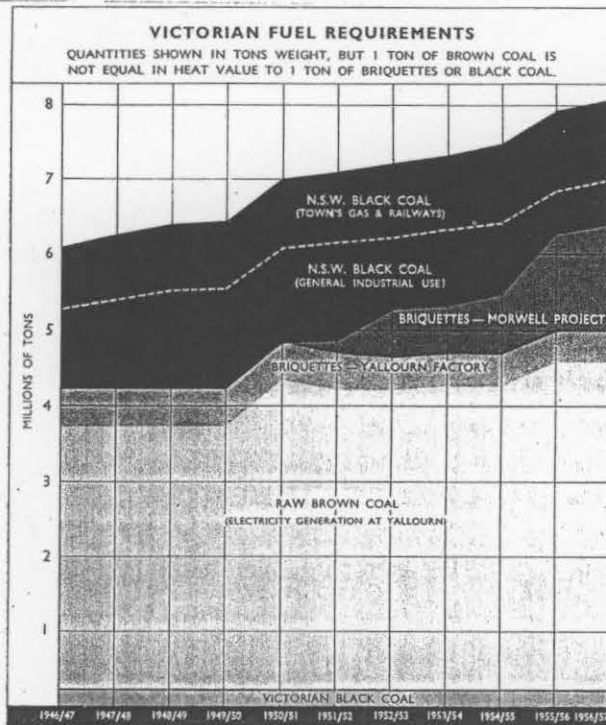
⁸⁴. Brewster to Loder, 20/9/48, p. 4, NAA: MP 831, 1955/714 Part 1 (file 2/9), op. cit.

⁸⁵. Brewster to Loder, "Re Snowy River", 22/9/48 (see Volume 2), NAA: AA1971, Box 1, *Snowy River Dossiers*. Also see "Mr. Brewster's Plan to Divert Snowy River", *The Murrumbidgee Irrigator*, 3/12/48.

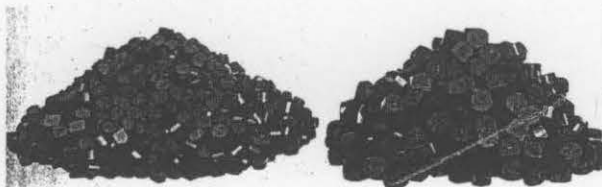
⁸⁶. Baddeley to Chifley, 12/10/48, NAA: MP 831, 1955/714 Part 1 (file 2/9), op. cit.

⁸⁷. Hudson, W. J., *Casey*, Melbourne, Oxford University Press, 1986, p. 181.

Figure 11; Graph, "Victoria's Fuel Requirements", where projected demand for fuel sees briquettes from Morwell replace much NSW black coal. From SECV, *Morwell Briquette Project*, Melbourne, SECV, 195?



● Briquettes manufactured in small sizes (below) make an excellent solid fuel for industrial purposes. Their advantages are high heat value, low ash content, absence of smoke, and strict uniformity of size and quality.



the Liberals won power.⁸⁸ By early October 1948, Casey was meeting with Fadden, as Liberal and Country Party politicians were conferencing in Brisbane, seeking a way to avoid three cornered elections or to avoid continuing attempts by other Liberals to absorb the Country Party.⁸⁹ Soon, McEwan, the astute deputy national leader of the Country Party, whilst praising the Liberals for finally agreeing, after their war time reversal, to now "ban the Communists," was also supporting moves to form "anti-Socialist" coalition governments.⁹⁰

In early November 1948, Lemmon reported to Cabinet on the latest designs, which brought the Tumut into play.⁹¹ With the first third of the Snowy water being proposed to be diverted to the Tumut (from the Eucumbene--a tributary of the Snowy) and the second third going to the Murray (to make up for the water diverted from the Tooma), it would become a question of what to do with the final third--send it down the Murray, or, the Tumut/Murrumbidgee. The report also proposed that work on the Tumut diversion was favoured for "early development" as a way of encouraging New South Wales to this design.

With the new designs (finally) publicly available on the 25th of November, community groups were again active. Killen, of the MVWUA, wanted to know how soon the water would be available, a major point for proceeding with the simpler Murrumbidgee diversion, but Lemmon sidestepped the question.⁹² Representatives of ten East Gippsland Shires were again calling for a new State and felt it was time to lodge an "emphatic objection"⁹³ to the apparent loss of the river. With the release of the committee reports, the Murray Valley Development League, having always agreed to abide by the decision of the experts could "only rejoice that they have so agreed."⁹⁴ With the 'final third' of the Snowy up for grabs, however, the more considered response of the League was now to forego its undertaking not to be political or act as a pressure group. It sought "to organise popular support and to

⁸⁸. "Liberal Party to Draft Treason Laws", *The Age*, 29/4/48, p. 3.

⁸⁹. "Liberal-CP Election Unity Talks", *The Argus*, 4/10/48, p. 3 and "Party Merger Talks in the New Year", *The Age*, 14/12/48, p. 3.

⁹⁰. "McEwan Declares in Favour of Lib-CP Coalition Govts", *The Argus*, 13/12/48, p. 3.

⁹¹. Cabinet Submission, Agendum No. 1370A, 8/11/48, NAA: MP 831, 1955/714 Part 3, *Snowy River - policy (including preliminary investigations)*.

⁹². See questions by Fuller and Langtry and answers by Lemmon, 25/11/48, in *Commonwealth of Australia, CPD*, Vol. 200, Canberra, Govt. Printer, 1948, p. 3508-9.

⁹³. "New Snowy Scheme Condemned", *The Argus*, 26/11/48.

⁹⁴. *Murray Valley Newsletter*, Vol. 3, No. 10, 15 Dec., 1948, p. 89.

secure support of...parliamentary representatives."⁹⁵ In early February, the Executive Council of the MVDL finally agreed to press for the last available third to be diverted to the Murray.⁹⁶

The Commonwealth, given its continuing constitutional set backs, then formulated its explicit rationale for retaining control. Lemmon reported to Cabinet that several options existed; to use the Seat of Government Acceptance Act, the defence powers and/or to get the States to construct parts of the Scheme.⁹⁷ The Departmental sub-committee soon recommended that a Commonwealth Authority, on the model of the TVA, be created to design, construct and operate the Scheme.⁹⁸ Significantly, the cost of power was considered to be about half that of power from coal. Indeed, Treasury was soon hoping that it could also levy a sinking fund on revenue, (nominally) to refurbish plant, but it was also considering charging for water.⁹⁹ The Scheme would save as much coal as was currently produced and the power stations would be located securely underground. The formal report reiterated the importance of defence projects, even "including atomic and aeronautical research."¹⁰⁰

This 'military-industrial' link was, however, to be in co-operation with British, not American researchers. Fundamentally, Chifley was seeking to insulate Australia from the "dynamic yet unpredictable" US economy.¹⁰¹ The Chifley government was convinced that both "physical security and national economic well being" were dependent upon maintaining development programs and a high rate of immigration. Accordingly, it sought to "become independent of dollar supplies, to promote intra-sterling area trade, and to develop Australia's economy with British and Australian capital."¹⁰² Consistent with the ALP's fears of US capital repatriating big profits, a Sterling autarky was preferred. This would be reinforced later during 1949 when heavy equipment for the Scheme would be sought from

⁹⁵. *Murray Valley Newsletter*, Vol. 4, No. 2, 15 Feb., 1949, p. 17.

⁹⁶. "M.V.D.L. Considers Snowy", *Murray Valley Newsletter*, Vol. 4, No. 2, 15/2/49, p. 1. Also see "Fight Urged to Get Snowy Water", *The Age*, 8/2/49.

⁹⁷. Cabinet Submission, Agendum No. 1370A, 8/11/48, NAA: MP 831, 1955/714 Part 3, *Snowy River - policy including preliminary investigations*.

⁹⁸. Lewis, 1971, op. cit., p. 39.

⁹⁹. "Snowy River Scheme; Suggested Constitution and Functions of Commission", circa 25/2/49, p. 2, NAA: MP 831, 1955/714 Part 5, op. cit.

¹⁰⁰. Price, L, "Report...Departmental Committee...", circa early December 1948, NAA: MP 831, 1955/714 Part 3, op. cit.

¹⁰¹. Lee, David, *Search for Security: The Political Economy of Australia's Postwar Foreign and Defence Policy*, Sydney, Allen and Unwin, 1995, p. 37.

¹⁰². *Ibid.*

Britain. Although some technical advice would be welcome from the US, the government "was anxious, if possible, to obtain contractors [for the Scheme] within the sterling area."¹⁰³

More broadly, Evatt was seeking a just and equitable post-war global political-economic regime, through a democratic United Nations and co-ordinated, international efforts to stave off the recession, which Chifley thought imminent. Wary of US agendas and its risks for economic growth and security for labour, Labor was cautious about external balances and to continuing fiscal constraint and rationing at home. The new US President Truman, however, soon linked his anti-Communist drive with development assistance for countries such as Australia.¹⁰⁴ This provided an opening for those prepared to break with Sterling. Indeed, Casey and the Liberal's Federal Rural Committee were soon meeting to decide rural policy for the 1949 elections.¹⁰⁵

For Labor, to defend their program internally, the importance of the Scheme for generating power was to be emphasised throughout, as this best related to its strategic or defence-related rationale. This was particularly stressed to the States when they met with the Commonwealth in mid February.¹⁰⁶ Lemmon offered the States the incentive that the Scheme would be completed via their facilities and sub-contractors, along with the Commonwealth's. Nevertheless, McGirr and his Minister for Public Works, Cahill, were determined to seek a New South Wales controlling authority. Cracks within the conservative ranks were apparent, as Hollway and those seeking to absorb the Country Party (in Victoria especially), were still calling for steep conditions before agreeing to the Scheme--including water for the lower Snowy.¹⁰⁷ As the meeting date drew closer, this call was moderated as it would lose many votes--'Country Party' included--west of the range. In the event, a new State, which gained privileged claim to

¹⁰³. Australian Daily News Summary [Extract]; "American Contractors Interested in Snowy Mountains Project", 14/9/49, NAA: A3094, 333/1, *Hydro-Electric Projects - Snowy River Diversion*. Also see NAA: A462, 318/5, *Snowy Mountains Hydro-electric Authority - Employment of American technical personnel*.

¹⁰⁴. "Truman Flays Communism: Offers Help to World", *The Argus*, 21/1/49, p. 2 and "Australia Included in vast global new deal", *The Argus*, 24/1/49, p. 1.

¹⁰⁵. "Liberals' Policy", *SMH*, 11/2/49, p. 5.

¹⁰⁶. "Conference of Commonwealth and State Ministers and Officers on the Proposed Diversion of the Snowy River", 14/2/49, p. 8. PRO: VPRS 6008, Box 578, file 50/4912, *Snowy River*.

¹⁰⁷. "Snowy Plan Pledge Sought by Victoria" *The Sun*, 12/2/49.

cheap power (although loosing the water!), was called for by Hollway and Kent Hughes.¹⁰⁸ Federally, the Liberal and Country Parties were still discussing whether to merge or not, although a joint policy charter, including "restoration of...Commonwealth subsidies", as well as banning the Communist Party, had been evolved.¹⁰⁹

Leaving the States to bicker over the 'final third', Lemmon then stepped up the defence-related rationale. In co-operation with the British Government, Australia would be the major centre in the Empire for developing atomic weapons involving "considerable industrial undertakings and special scientific equipment for the splitting of the atom."¹¹⁰ America could also join. The project would be led by Professor Mark Oliphant who would take up a post at the ANU to lead the research. In line with the emerging Truman doctrine, the US was also soon offering its services and TVA expertise. McGirr called a personal meeting with Chifley for the 26th of February.

At the meeting, McGirr again sought a joint construction authority, to be followed by a New South Wales controlled operation as proposed by the New South Wales Cabinet.¹¹¹ He re-iterated that New South Wales believed it had adequate expertise, finance and constitutional power to undertake the Scheme. Indeed, the State's Public Works Department was the most formidable in the country, providing the engineering backbone of the war effort. It was also announcing a storage scheme at Menindee Lakes, on the Darling (a further stage in Brewster's plans for the Basin) and was moving to establish its own multi-purpose Conservation Authority.¹¹² Chifley remained adamant that the Commonwealth's defence powers would suffice to ensure control by the Commonwealth.

Importantly, however, a compromise was also advanced. Although the Commonwealth would continue to push for "direct and primary responsibility for constructing and operating the scheme", provision

¹⁰⁸. "Snowy Power to Run New State", *The Herald*, 14/2/49.

¹⁰⁹. "Federal Leaders Plan Joint Opposition Policy", *SMH*, 23/2/49, p. 4.

¹¹⁰. "Australia to be Major Centre for Atomic Research in 15 Years", *The Canberra Times*, 22/2/49, p. 2.

¹¹¹. "Snowy River Scheme" [notes of meeting between Chifley and McGirr, 25/2/49], NSW Premier's Department, SRNSW: 13/10720, 64/1142/A, *Snowy Mountains Hydro Electric Authority - General*.

¹¹². "Conservation Authority Plan", *SMH*, 30/3/49, p. 4

would be made for "consultation with the States" to avoid duplication and overlapping. It would also seek "advice [on] each stage of development."¹¹³ This was, at least, a new beginning towards an agreement on how joint influence could be legally and constitutionally exercised, but whose unresolved outcome was to dog the Scheme. Indeed, McGirr soon replied that section 100 of the Constitution meant that the Commonwealth would have "no power" over the rivers of the Alps.¹¹⁴

Surprisingly for financial commentators, Victoria was also stressing its independence by an unusual means. The underwriting of the SECV's burgeoning loans program was being undertaken "by another State instrumentality",¹¹⁵ the State Savings Bank. Similar issues of State controlled tax and finance policy would arise as a sticking point in the subsequent Snowy Mountains (Advisory) Council negotiations. For now, however, the anti-centrist banking forces were asserting themselves as an appeal against the High Court's rejection of Chifley's nationalised banking legislation was to be heard before the Privy Council (eventually lost on July 26th, 1949). Concurrently, against stop-start investment, the New South Wales coal miners were protesting, seeking nationalisation and pensions, for miners (figure 12).

On the 4th of March, after the Labor Party Executive met, Chifley announced to Caucus that the Cabinet had decided that the Commonwealth would control the Snowy Scheme, via its defence powers. This was approved by Caucus.¹¹⁶ Soon Lemmon's Department was writing to the Attorney-General's Department, asking that it draft a Bill to set up a Snowy River Commission.¹¹⁷ Chifley also formally replied to McGirr's threat to call on section 100 of the Constitution that prohibits the Commonwealth to interfere with the State's water rights. Chifley suggested that the proposed course of development "would, on the contrary, assist" in making the waters "more readily available" for "reasonable use."¹¹⁸ Further inter-departmental discussions were concurrently in train on the pros and cons

¹¹³. Unattributed Notes from meeting between Chifley and McGirr, NSW Premier's Dept., SRNSW: 13/10721, 64/1142/B, op. cit.

¹¹⁴. McGirr to Chifley, 2/3/49, Electricity Commission [Elcom], SRNSW: 18/2206, 353/1, *Co-ordination of Works between SMHEA, SEC Vic, ECNSW*.

¹¹⁵. "Underwriting of Public Loans", *The Argus*, 5/2/49, p. 11.

¹¹⁶. "Snowy River Project to be Pushed Under Federal Control", *SMH*, 4/3/49, p. 1.

¹¹⁷. Price to The Secretary, Attorney-General's Department, 8/3/49, NAA: MP 831, 1955/714 Part 5, op. cit.

¹¹⁸. Chifley to McGirr, 31/3/49, NLA MS 987/7/1922 [Dedman Papers].

Figure 12; Drawing, "Noel Counihan's impression of a miner", *Common Cause*, 19/1/46, p. 7.



Noel Counihan's impression of a miner. It will be recalled that Mr. Counihan, who is the cartoonist of the Victorian "Guardian," won prizes in the recent Victorian "Australia At War" exhibition for his studies of Wonthaggi miners. An article on Counihan's work appeared in the December issue of "Progress," the cultural magazine with a punch.

of a three or one man commission, the latter with two assistant commissioners.¹¹⁹ Autonomous, administrative criteria again came to the fore: for the inter-departmental committee, a "representational body" would be "unsuitable" for a "constructional and business undertaking."¹²⁰ Loder was soon in line for the crucial post, but by July he would withdraw¹²¹ and the "Sydney man",¹²² Hudson, would be appointed.

Meanwhile, with the diversion of the 'final third' of the upper Snowy to the Murray or to the Tumut now possible, the Shire of Orbost was again active. The Greater Gippsland and Snowy Rivers Protection and General Development League protested. Catchment protect was a major concern. The League expressed concern that the mouth of the river would sand up, flooding the alluvial lands immediately upstream.¹²³ Indemnity against financial loss was also sought and the possibility of constructing a breakwater was canvassed. Bowden, the federal United Country Party member for Gippsland, wrote to Lemmon reiterating the need to indemnify locals. He added that dredging the opening could be considered.¹²⁴

The conference of Commonwealth and State Ministers on the 14th of February 1949 had agreed that further examination of the lower Snowy problem was required. At the meeting, Kent-Hughes, replacing Lienhop as Minister for Fuel for Victoria, sought to represent the farmers of the Orbost region, along the Snowy River flats. He raised concerns about the long term effects on the river itself.¹²⁵ The drought of ten years ago had lowered flows substantially and concerns were now being expressed about the likely silting up of the river mouth. This and similar questions needed answers. Although he did not, as foreshadowed in the press, push for a new industrial state like his Country Party colleagues, he sought "safeguards".¹²⁶

¹¹⁹. "Instructions For Drafting Legislation" attached to Hibberd to Loder, 18/3/49, NAA: MP 831, 1955/714 Part 5, op. cit.

¹²⁰. "Snowy River Scheme; Suggested Constitution and Functions of Commission", circa 25/2/49, p. 1, NAA: MP 831, 1955/714 Part 5, op. cit.

¹²¹. *Murray Valley Newsletter*, Vol. 4; No 5, 15/5/49, p. 66 & No. 7, 15/7/49, p. 109.

¹²². "Snowy offer to Sydney man", *Sun*, 5/7/49.

¹²³. H. McK. Silke, Orbost Shire Secretary to Col. G. Bowden (MHR), 7/2/49, NAA: A5628, 1962/485, ...effect of the scheme on the lower Snowy...

¹²⁴. Lemmon to Bowden, 17/2/49, NAA: A5628, 1962/485, ibid.

¹²⁵. "Conference of Commonwealth and State Ministers and Officers on the Proposed Diversion of the Snowy River", 14/2/49, PRO, VPRS 6008, Box 578, file 50/4912, op. cit.

¹²⁶. "Snowy Power to Run 'New State'", *The Herald*, 11/2/49.

In late February 1949, the residents of Orbost intensified their efforts. The President of the Shire called a public meeting on the 25th of February which elected a committee called the Snowy River Protection League. Although also supportive of the general intent of the Scheme, there was much unease about the fate of the Lower Snowy and that Orbost residents "had not so far been consulted in any way" by the engineers.¹²⁷ It was the loss of the summer flows that was of particular concern.

Along with Bowden the deputy Premier (Kent Hughes) was in attendance and he suggested that compensation flows from Jindabyne be permitted or another dam below Jindabyne be built.¹²⁸ The State Rivers and Water Supply Commission of Victoria's representative, Green, then reassured the residents that even after diversion from Jindabyne, enough (*average*) flow would remain in the river to keep the mouth open; "the river flow had often fallen below these discharges in the past without allowing the mouth to silt up."¹²⁹ The engineer also dismissed the possibility of diverting water from Jindabyne storage as this would be a relatively minor flow and he also believed that the problem of salt ingress was unlikely to arise. He also dismissed local knowledge about the need to maintain summer flows as lacking precision.

In early March, Silke (Snowy Shire Secretary) again took up these concerns, not with Hollway (Premier of Victoria), but with Chifley.¹³⁰ Silke stressed that the committees were concerned with the national interest but "naturally their rights must be protected." Meanwhile, steering a middle course, Hollway and Kent Hughes believed that Kiewa should have priority over the Snowy Scheme.¹³¹ Then, on the 17th of March, a joint meeting of the East Gippsland Regional Committee and the Monaro-South Coast Regional Development Committee convened in Orbost to further press the case for regional development.¹³² It resolved to argue for power to be made

¹²⁷. SR&WSC, Investigations and Design Branch, "Snowy River Development Meeting of Orbost Residents 25th February, 1949", p. 1 (see Volume 1, Part "Reports and Publications"), NAA: AA1971, Box 1, *Snowy River Dossiers*

¹²⁸. Ibid, p. 2.

¹²⁹. Ibid.

¹³⁰. H. McK. Silke, Shire Secretary and Secretary to the League, to Chifley, 7/3/49, NAA: A461, AJ423, Part 4, *Snowy River Hydro-Electric Development*.

¹³¹. "Kiewa Scheme Priority Over Snowy Project", *Bendigo Advertiser*, 15/3/49.

¹³². These groups may have expressed occasionally divergent views on what emphasis was preferred.

available to this rugged, coastal region. It opposed the allocation of water away from the region, until "local requirements are first satisfied."¹³³ These included "present and future needs of industrial and rural development."

The joint, regional committees continued to push for development with Two Fold Bay, a deep sea port at Eden, being a focus for regional or decentralised development. Hollway was happy to pass these resolutions on to Chifley, who wrote back informing the committee that this time East, Chairman of the State Rivers and Water Supply Commission, had agreed to visit the region.¹³⁴ The Commonwealth was also moving to quickly contact Murrumbidgee irrigators. Lemmon wrote to the Secretary of the MVWUA, M. J. Gleeson, in late March to counter Brewster's strategy. Brewster was seeking to protect a Murrumbidgee diversion by not informing the MVWUA of the cheaper option of regulating water and the feasibility of Blowering Dam in the Tumut Valley. Lemmon therefore explained that "regulation could be obtained much more quickly and cheaply than by the diversion from the Snowy, as it would require the building of one or two major dams only."¹³⁵ Gleeson, feeling that he had hitherto been misled,¹³⁶ could only fall into line with the Commonwealth.

The Hydro Electric Sub Committee then convened to consider the altered design possibilities. It heard that with a 'full utilisation' approach, the Murray diversion option had increased nearly four fold to 1600 megawatts and the Tumut option to 1000 megawatts. Such a massive increase may cause, as Lewis suggested, "complications", and it may prompt the Main Committee to ask "what were you doing in your last investigation?"¹³⁷ The delayed consideration of the expanded options was thus now also proving to be a possible source of embarrassment to the planners. Indeed, in their

¹³³. See Hollway to Chifley, 28/4/49, NAA: A2618, Document 3072, *Greater Gippsland and Snowy River...*

¹³⁴. Chifley to Silke, 1/4/49, NAA: A461, AJ423/1, Part 4, *Snowy River Hydro-Electric Development*

¹³⁵. Lemmon to Gleeson, 28/3/49, CSUA: RW3/4/4011.

¹³⁶. Lewis, 1971, op. cit., p. 42.

¹³⁷. Hydro-Electric Sub-Committee, "Notes of Meeting...11th April, 1949", p. 2 and 5, NAA: MP 831, 1955/714 Part 1 (file 8/9), op. cit.

report to the Main Committee (of May), the Sub Committee put off specifying by how much the initial (Tumut) project would be increased.¹³⁸

Concern turned towards the load factors. Initially designed to be around 40%, as Olsen had redesigned the much expanded options, the load factor had now plummeted to 26%. For Olsen (in advance of his own SECV), this was a highly desirable outcome, as, in his view, hydro-electric stations "are suitable only for peak operation. That is, where steam stations are not suitable."¹³⁹ Given the long time it would take for the Scheme to be compatible with an emerging, integrated electricity grid under such assumptions, the Commonwealth engineers were again baulking at their own proposals, now wondering about a staged approach. For Lewis, the initial stages could see a higher capacity and, as the load develops, "we could vary it? It is a very big scheme."¹⁴⁰

In mid April, the Main Committee met and considered the affect of the Upper Snowy diversion on Orbost lands. East began by outlining the concerns of the community, of the closing of the river mouth and the loss of water quality along the river flats.¹⁴¹ Brown (Post War Reconstruction) and Loder were rather unconcerned about the prospects. Loder, from Sale, was familiar with the conditions in the Gippsland Lakes, a large group of lakes once filled by fresh water. The opening of the lakes to the sea at Lakes Entrance had introduced salt water (or at least to Lake Wellington). Loder thought that it had had little affect on the adjacent farmlands and that the same would hold for the lower Snowy. Main (Public Works) was also less than seriously concerned about the lower Snowy. When he had chaired New South Wales' 1942-4 Snowy River Investigation, he and his technical committee had concluded that the remaining, halved flow, would be adequate.¹⁴² East hoped that "all that might be necessary is that the bar be opened up only once a year." Main extrapolated, wondering whether the flow from merely the Victorian catchment would now be sufficient and whether water could be specified for release from Jindabyne for

¹³⁸. Hydro-Electric Sub-Committee, *Snowy River Investigations 1948-49. Supplementary Report by the Hydro-Electric Sub-Committee*, May, 1949, p. 6 and Appendix A, p. 3.

¹³⁹. Hydro-Electric Sub-Committee, "Notes of Meeting...11th April, 1949", p. 4, NAA: MP 831, 1955/714 Part 1 (file 8/9), op. cit.

¹⁴⁰. Ibid, p. 5.

¹⁴¹. Snowy River Committee. "Notes of Meeting...12th/13th April, 1949", p. 13, NAA: MP 831, 1955/714 Part 1 (file 3/9), op. cit.

¹⁴². Ibid, p. 13.

"compensation."¹⁴³ Then, after further discussion, East reiterated that the principle problem appeared to be the "loss of the opening of the bar" but "if four of us went down that would be ample. It is really just for the purpose of 'showing the flag', rather than making any real investigation..." East, Brown, Main, Loder and others as well as their officers finally decided that they would travel to Orbost for a meeting on Friday the 29th of April.

In the interim, Lewis reported to the Main Committee on the comparisons being undertaken between the now burgeoning options, the combined Murray and Tumut diversion option and modified Murray and Tumut diversion options which could now also include a diversion to the Murrumbidgee. Doubt had arisen from surveys as to the possible capacity of a dam at Adaminaby--of six-hundred and fifty thousand or a million acre feet. Pressure was growing for a larger dam or "that a small increase in wall height [from 140 to 160 feet] would be practicable and would provide the additional amount."¹⁴⁴ As previously planned, he also reported that the Snowy-Murray design had been modified. It would have a lower load factor¹⁴⁵ (26%) and lower energy output, due to dropping a storage dam at Spencers Creek but demands on upper Snowy waters were increasing as Jindabyne would now be used more intensively for (power) demand storage.¹⁴⁶

Whilst demands by the engineers for greater storage were continuing, at the lower end of the Snowy River, East and other members of the Commonwealth committee met with Orbost residents. Webster, who had completed a report on problems and possible options before the trip, advised him.¹⁴⁷ Webster down-played the potential problems even as he recognised that significant alterations to the rivers flow regimes would arise. He (again) estimated that at Orbost, average flows would drop to 47% of current flows, that flood flows would be down by 20% and drought flows

¹⁴³. Ibid, p. 14.

¹⁴⁴. Lewis, "Notes of Verbal Report Given by Chairman of Hydro-Electric Sub-Committee on Progress of Work to Date", circa 12/4/49, NAA: ibid.

¹⁴⁵. The 'load factor' here refers to the amount of load supplied from the hydro scheme compared to the full load on the electricity system.

¹⁴⁶. Lewis, "Notes of Verbal Report Given by Chairman of Hydro-Electric Sub-Committee on Progress of Work to Date", circa 12/4/49, NAA: MP 831, 1955/714 Part I (file 3/9), op. cit.

¹⁴⁷. SR&WSC, *Inland Diversion of Snowy River: Effect on Orbost lands*, Melbourne, The Commission, April 1949.

by 66%. Further, during dry periods, the salinity of waters near the river mouth due to tidal inflows may "possibly slightly increase" but underground waters would remain unaffected. Ultimately, however, the lower Snowy flows "will still be substantial"¹⁴⁸ or enough to avoid any serious problems. Over the forthcoming decades, he mooted that further monitoring reports could be made.

The land holders were not convinced. In response, a local committee soon formed "to place before the Federal investigators" the matters of "great concern" to those along the lower Snowy.¹⁴⁹ All Commonwealth committee members except Brewster travelled to Orbost and listened to concerns about the silting up of the river mouth, threats to the fertility of the irrigation flats and rises in river water salinity. East, as reported by the *Snowy River Mail*, suggested that "compensation for known and unknown damages would necessarily be recommended" for incorporation in the planning of the Scheme. Loder, as Chairman, gave an "assurance that their case would be fully investigated before the finding was made."¹⁵⁰ Orbost residents, according to Barry (reporting to the Monaro-South Coast Regional Development Committee), had also formed the belief that:

the expert committee in making its final report to the Federal Government had been instructed at the request of the Victorian Government to make a full investigation into the effect of the proposed diversion of the Snowy on settlements below Jindabyne.¹⁵¹

The primary role for protecting the lower Snowy, as understood by locals, still remained with the Commonwealth. Barry also secured support from other Shires to "retain for the Region such benefits as might be available from the development of the Snowy River Scheme."¹⁵²

By late May, the Main Committee was meeting again and returned to the lower load factors now being firmly recommended by the Hydro Electric Sub Committee who had formally submitted their design report.¹⁵³ East

¹⁴⁸. Ibid, p. 18.

¹⁴⁹. "M-SC Regional Committee", *The Cooma Express*, 17/5/49.

¹⁵⁰. "Effect of Snowy River Scheme", *Snowy River Mail*, 4/5/49, p. 1.

¹⁵¹. "M-SC Regional Committee", *The Cooma Express*, 17/5/49.

¹⁵². Ibid

¹⁵³. Snowy River Committee, "Minutes...23rd May...[1949]", NAA: MP 831, 1955/714 Part 1 (file 3/9), op. cit.

reported on the concerns of those on the Lower Snowy. Contrary to local opinion, he doubted whether the Snowy diversion would affect the quality of water for stock supply purposes "as even now there were times when the water was not drinkable by stock." The problem of possible silting up of the mouth of the river was much more serious. Nevertheless, as foreshadowed in the press, a storage of about 30,000 acre feet was recommended as it would "probably ensure a satisfactory minimum flow during the three or four dry months at the beginning of the year." Yet the committee decided that it would omit, in the final report, any mention of possible damage. It would favour remedial works "either by providing storage or otherwise, to ensure the river mouth being kept open." For Brewster, however, getting water inland should not be delayed, and if not to the Murrumbidgee, then the remainder of Snowy water should be available on the northern bank of the Murray.¹⁵⁴

In late May 1949, the second reading of the Snowy Mountain Hydro Electric Power bill was then debated. For Lemmon, with its cheap electric power which was the "most efficient tool of the machine age" the Scheme would decentralise populations. Inland cities with populations of a million would arise "in our time."¹⁵⁵ Lemmon foregrounded the role of electricity in powering the nation's "munitions factories and laboratories and its defence research installations." The "industrial capacity of the nation" for its "defence machine" were the dual constitutional bases for Commonwealth control. The offers from President Truman continued.

Importantly, Lemmon also referred to the concerns of the Snowy River Protection League. Lemmon promised that the proposed Snowy Authority, even acting outside its prescribed area of activity, "may...provide some small storage in the lower Snowy Valley to augment the summer flow in that area."¹⁵⁶ Provision had been made, he said, to protect and pay compensation to communities affected. Nevertheless, by the time a mid July meeting of Ministers ratified an (interim) agreement, these conditions held out to local residents and recently reiterated within federal parliament would change. In the meantime, Lemmon was also offering a "significant

¹⁵⁴. Ibid

¹⁵⁵. Lemmon, Second Reading of the Snowy Mountains Hydro-Electric Power Bill, 1949, 26/5/49, in Commonwealth of Australia, *CPD*, Vol. 202, Canberra, Govt. Printer, 1949, p. 245-250.

¹⁵⁶. Ibid, p. 249.

concession" to New South Wales. Its Public Works Department would be allowed to construct, in collaboration with the Snowy Authority, the proposed dam at Adaminaby, the first of the major works.¹⁵⁷ McGirr would soon accept the offer.¹⁵⁸

To return to the matter of protecting the Snowy, the engineers of the Main committee were in the process of arriving at a compromise among the three governments involved. Consistent with the Constitution, this plan would transfer Commonwealth responsibility for protecting the Lower Snowy to Victoria. This idea arose in mid June, as the Main committee reported its conclusions to Ministers.

After the replacement of the Tooma water by water diverted from the Snowy into the Murray, there remained the question of whether the remaining Snowy water should go either to the Murray or Murrumbidgee. After diversion of 235,000 acre feet per year from its Eucumbene tributary to the Tumut, there was estimated to be about 400,000 acre feet per annum available. The former option would produce more power at less cost (155 megawatts more, at £25 million less). It was also believed that it would also produce 'firm' power. Beyond this preference, the committee then recommended--and had begun to assume--that "the greatest economic value for the scheme can be obtained by designing it to operate mainly on peak loads."¹⁵⁹ Designing the Snowy Scheme for a (guaranteed) supply of specialised peak power would enable the installation of much larger coal fired power stations, making for greater economies of scale overall. A peak power Scheme would come to underwrite fossil fuel grid economics. Further, as long anticipated by Loder and Brown, this would also add to the leverage of the Commonwealth over the States on the matter of electricity infrastructure.

Mainly upon the economics, the Committee had no hesitation in recommending that the balance of water from the Snowy be diverted to the

¹⁵⁷. Lemmon to Cahill, 10/6/49, NAA: MP 831, 1955/714 Part 5, op. cit.

¹⁵⁸ On the 12th of July McGirr wrote to Chifley accepting the job of building Adaminaby and Chifley confirmed his acceptance on the 22nd of July. See Chifley to McGirr, 22/7/49, Public Works, SRNSW: AK474, WS1001/158, *Adaminaby Dam - Question of Contract Method*.

¹⁵⁹. Main Committee, *Proposals to Divert the Snowy River. Second Report by the Committee of the Commonwealth and State Officers*, Canberra, the Commonwealth, 1949, p. 6.

Murray. Concurrently, "further investigations" had now established that the extra water into the Murray could "be used effectively for irrigation in the State of New South Wales"¹⁶⁰ (not just the Murrumbidgee). It also suggested that construction for diverting Snowy waters inland, which could include Eucumbene River waters, be undertaken in the early stages. Further, a storage on the Upper Murray of 250,000 acre feet needed to be provided and the replacement of diverted Tooma water be accepted from part of the water diverted from the Snowy. Finally, in line with the constitutional preference of the Commonwealth to be primarily associated with the energy or 'defence-related' components of the Scheme and the limits which section 100 of the Constitution places on the Commonwealth interfering with State riverine rights, the States were to be responsible for carrying out the lower storage works for irrigation needs.

Reflecting the committee's consultation with the region in April, the report then considered the implications for the Snowy. It reiterated what the affects might be on the lower Snowy, due to reduced flow.¹⁶¹ In sum, however, it concluded that "some of the fears expressed are not justified." It would be preferable to wait and see what deleterious affects arose before taking any action. The report then projected that Jindabyne dam was still up to 10 years away from completion (actually 20 years). Then and only then "the construction of relatively minor works" for improving the flows during summer, "would probably overcome the problem." Nevertheless, now qualifying Lemmon's previous pronouncements, the Snowy Authority "should be required to carry out *or to have carried out by relevant State instrumentalities* any investigations necessary to determine the effects of reduction summer flows on the lower Snowy area"¹⁶² and to arrange either directly or otherwise to have the work done.

The actual transfer of responsibility to Victoria for the lower Snowy arose as the extra water into the Murray--400,000 acre feet per annum according to the preferred option--also became a matter of bargaining between the States. Even as New South Wales was angling to be the State to get it all, Victoria was seeking a share. In particular, in return for some more water from the Murray, Victoria "should accept full responsibility for carrying

¹⁶⁰. Ibid.

¹⁶¹. Ibid, p. 11.

¹⁶². Ibid, p. 12 (emphasis added).

out any works found to be necessary on the Lower Snowy River."¹⁶³ This should not allow for the prospect of a release from Jindabyne. Further, in allowing Victoria to share in some of the extra water in the Murray that was "coming from a catchment entirely in New South Wales", and because New South Wales was prepared to forego the expensive option of re-diverting the extra water in the Murray to the Murrumbidgee by a long canal, "sufficient electric power should be made available to New South Wales free of cost, from power generated from the project, for pumping, for use on lands adjacent to the Murray."¹⁶⁴ The amended share in the Murray should then be 100,000 acre feet per annum to Victoria and 300,000 freely pumped to New South Wales (modified again in 1958). The Commonwealth, for its part, would again agree to participate in funding expansions to the Hume.

Victoria's share of power from the Scheme was also to be hedged. This time on the basis that it already had some hydro electric generating plant installed. Under the rubric of resource equity, it would be only after this had been added to that expected from the Snowy Scheme, that dividing the power according to relative populations in the two states would be done. After making allowance for Commonwealth power requirements, it was therefore recommended that the split of power be 'two thirds' to 'one third'.

Concurrently, however, the degraded conditions on the New South Wales coal fields were causing many headaches.¹⁶⁵ The underground coal mines had been developed in a speculative and haphazard manner by private capital. With many mines opening and closing according to the boom and bust cycles of inter-war, investment had been low, with picks, carts and horses still predominant. As with the wharfies, miners were also hired on an irregular basis. Unlike in the La Trobe Valley, few community amenities were built and conditions, wages and safety were often poor. These conditions had led to antagonistic industrial relations and to a range of defensive work practices. Given such unrest, by May 1949, Lemmon would be talking up the Snowy Scheme, suggesting that it would spare somewhere between 5,550 and 12,500 men from working in coal mines and power stations.¹⁶⁶

¹⁶³. Ibid, p. 14.

¹⁶⁴. Ibid, p. 14-15.

¹⁶⁵. "Background of the Strike", *Common Cause*, 27/8/49, p. 5 and 3/9/49, p. 4.

¹⁶⁶. Lemmon to Katz, 5/7/49, NAA: MP 831, 1955/714 Part 2, op. cit.

For the Miner's Federation, mechanisation, especially in the coal pillars or sections of coal left in mines for long-term structural integrity, would be resisted unless conditions dramatically improved. A shorter working week--35 hours--would also help offset the affects of 'speed up' mechanisation (figure 13). Town and site amenities along with secure and safe working conditions were, however, gradually being improved by the Joint Coal Board. But Chifley and the Board, given the uncertainties of bank nationalisation, were not prepared to fix the investment 'chaos' of the industry by nationalisation.

The momentous coal strike of winter 1949 then arose, with workers seeking to act before a feared, post-war recession eventuated (figure 14). The Communist-led unions were also refusing arbitration. As Sharkey, the General Secretary of the Communist Party put it, they were trying to "liquidate reformism."¹⁶⁷ Amidst the mainstream press campaigning hard against the Federation (figure 15), strike funds were withheld and union leaders jailed. Economic and social life stalled for seven weeks. Crucially, for later mining conditions, the AWU was also offering to break the strike and to work for piece rates. It was, however, the army that broke the strike, to the dismay of many. At the end of the strike, in mid August, Chifley then announced intensified plans for mechanising the mines and for expanded open cut mining.

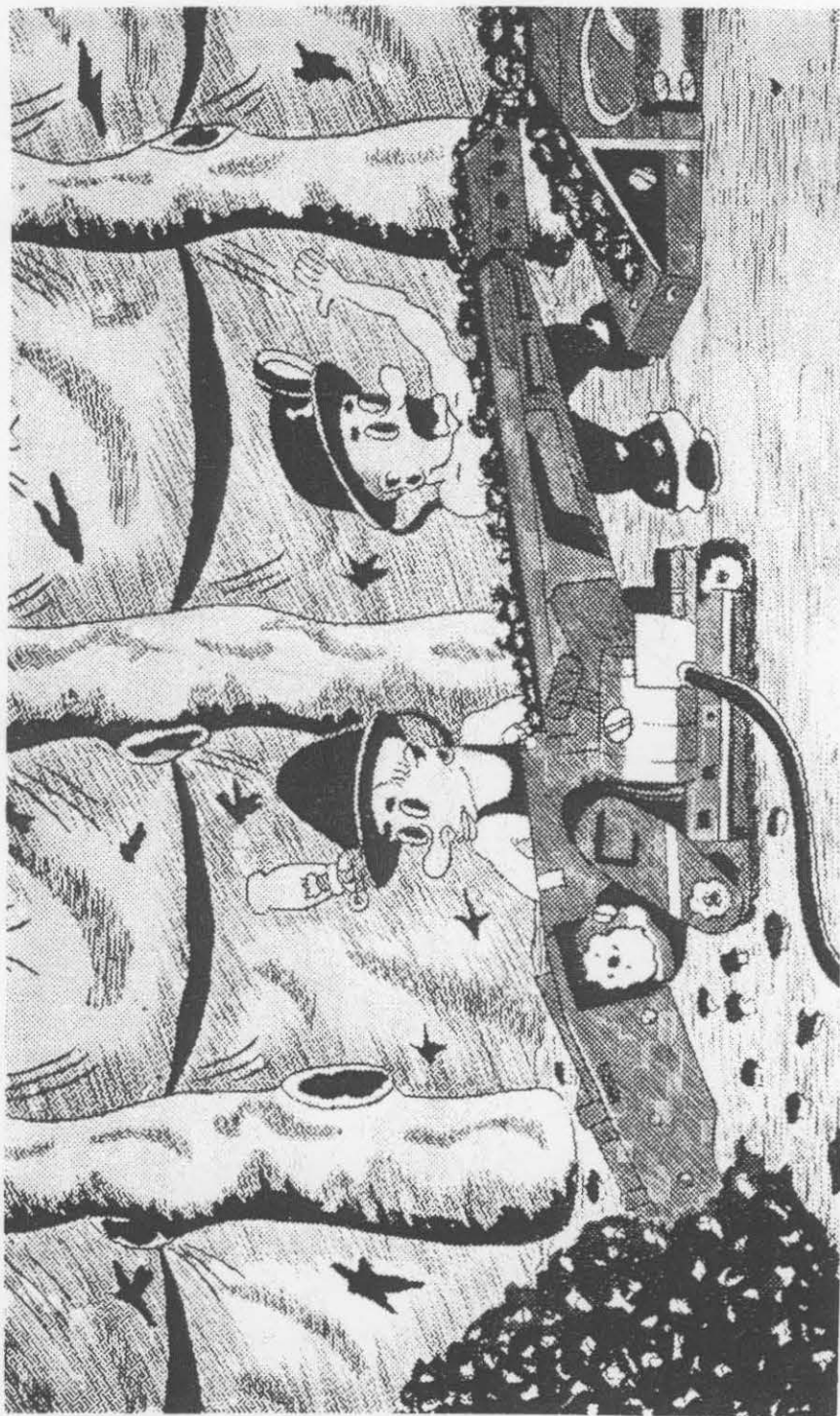
In the meantime, compromises between Liberal and Country Parties were evolving as Menzies debated the second reading of the Bill to establish the Snowy Authority. Fundamentally, he supported the project, "for the ordinary people of this country"¹⁶⁸ but he warned that close watch should be kept on expenditures. Appealing to his business constituents, while noting that the "settled policy of the coal unions [is] to have no reserves"¹⁶⁹ of coal, he pointed out that the Scheme could act as a strike breaker against New South Wales miners. Such a technological defence against union action was of "great moment" in preventing industrial disruption. He likewise supported the construction of Kiewa. The war

¹⁶⁷. Sharkey quoted from the *Communist Review*, April 1949, p. 113, in Gollan, Robin, *The Coal Miners of New South Wales*, Melbourne, Melbourne University Press, 1963, p. 232.

¹⁶⁸. Menzies, debating the Snowy Bill after the Second Reading, 22/6/49, in Commonwealth of Australia, *CPD*, Vol. 203, Canberra, Govt. Printer, 1949, p. 1345.

¹⁶⁹. *Ibid*, p. 1340.

Figure 13; Cartoon by Toby Jackson, "The idea of continuous miners is that we don't continue as miners", from Ross, Edgar, *A History of the Miner's Federation of Australia*, Sydney, Australian Coal and Shale Employees Federation, 1970, facing p. 400.



Cartoon in *Common Cause* by Toby Jackson expresses concern at effects of mechanisation—"The idea of continuous miners is that we don't continue as miners."

Figure 14; Cartoon by anon, "Our Vow - Never Again!", *Common Cause*, 17/11/45.

OUR VOW—NEVER AGAIN!



The Struggle For Security

(By FRANK DOLAN, Aberdare Lodge)

It is apparent that today there is something radically wrong taking place in industry. We find that there is a feeling of unrest existing.

In the coal mining industry this

feeling of antagonism between the men.

The sooner we think as a whole and not separately, the better for all concerned.

Here is how I view the whole situa-

Figure 15; Cartoon by McClintock, "Daily Hate", *Tribune*, 2/7/49.



against unionism in the USA, based on the Taft Hartley Act, was also firming as Liberal strategy. Menzies also supported 'States rights'. The TVA precedent and the defence power basis "is mere humbug...it is the excuse for grabbing all authority in this matter." Especially as the States were being brushed aside, the legislation was "tainted...with serious illegality."

Allan Fraser, the Labor member for Eden-Monaro, praised his constituents as "big Australians...united in their determination to see that this great national work is accomplished."¹⁷⁰ Earle Page, the elder statesman of the Country Party, defended the role of "non-Labor governments" in past national development projects, primarily for agriculture.¹⁷¹ The national scope of the Agricultural Council, he implied, also offered a structure for negotiating various State interests and for arranging long term financial security for the projects (now estimated to cost £175 million).

Within this majoritarian agreement that the Scheme was a worthy project (although the 'States rights' Kent Hughes would continue his opposition) and the Upper Snowy should be so diverted, confusion as to emphases and means was evident in federal parliament. The United Country Party member for Gippsland, Bowden, suggested that the welter of combined and recombined diversion options during the election year of 1949 was misleading many in his electorate. For him, there was still a "good deal of confusion" about "what is exactly meant" by the proposal to divert two thirds of the waters of the Snowy River into the Murrumbidgee River and one third into the Murray River.¹⁷² The belated revelation of the massively expanded, *combined* Tumut and Murray diversion options, delayed to protect a Commonwealth role, was straining efforts to keep everyone informed. Lemmon replied that all the flow above Jindabyne was to be diverted and this was to be divided one third to two thirds. The remaining flow at Orbost, would be about 53% of the total flow, measured at Orbost. The tributaries and catchments below Jindabyne would now be the only source to a truncated Snowy River.

Nevertheless, the Authority would (still) continue to be responsible for protecting the Lower Snowy, or this at least appeared to be the intention of the government as it framed the Snowy Mountains Hydro Electric Power

¹⁷⁰. Ibid, p. 1351.

¹⁷¹. Page, Earle, 22/6/49, *ibid*, p. 1352

¹⁷². Bowden, 1/7/49, *ibid*, p. 1912

Act. As assented to on the 7th of July, the Bill provided the Authority with sweeping powers under a defence rubric to build the Scheme *and* to construct and operate incidental works that were "necessary or desirable for the purpose of preventing or mitigating injurious effects of any works..."¹⁷³ By mid July, however, the undertaking of Lemmon in the second reading speech that the Authority would be charged to protect the lower Snowy and vaguely reiterated in the Bill itself, had altered. The conference of Ministers of the 13th of July ratified the suggestion from the late June report. More in line with the wishes of the engineers, responsibility for the lower Snowy would now be passed to Victoria in return for extra water being provided to Victoria and subject to the Snowy Authority making available free of charge "sufficient power to pump its share of the water to the areas agreed upon."¹⁷⁴ Further, as underlined by Geo Weir, the New South Wales Minister for Conservation, "Victoria...will not require at any time that any water be released from the Jindabyne storage to the Lower Snowy and so become unavailable for power and irrigation."¹⁷⁵

Victoria's State Rivers Commission appears to have preferred to swap what it regarded to be an inconsequential responsibility for protecting the Lower Snowy in return for gaining extra water from the Murray. The Commonwealth would have been freed from an 'irrigation' or river management responsibility remote from the Scheme's designated area (even as it took a great interest in the Hume) and New South Wales would gain free power for pumping from the northern bank of the Murray. In New South Wales many of its politicians and bureaucrats were still bargaining on the matter of control. But, consistent with the apparent lack of a "clearly defined scope" as a result of the mid 1946 conferences, which had been assiduously cultivated by Commonwealth, Loder recalled that an apparently ever reliable strategy could again be mobilised:

The decision of the Commonwealth to 'go it alone' under the Defence powers had a considerable effect on forcing NSW to final agreement--as

¹⁷³. "The Snowy Mountains Hydro Electric Power Act", in Australia, *Commonwealth Acts Vol XLVII* Canberra, Government Printer, 1949, p. 113.

¹⁷⁴. See Lemmon's summary in Conference of Commonwealth and State Ministers, 13/7/49, p. 6, NAA: MP1051, 1955/714, Part 5, *Snowy River - policy including preliminary investigations*.

¹⁷⁵. Weir, NSW Minister of Conservation, to McGirr, NSW Premier, 3/8/49, NAA: A2618, Document 3077, *Snowy River Development Scheme*.

it was intended to. Legal doubts were admitted but Brown and I felt that by the time it got to the Privy Council if anyone fought it out we would have gone so far it couldn't be stopped.¹⁷⁶

Loder's overall strategy was, however, still partly reliant on an election outcome. About six weeks prior to the election, on the 17th of October, about 4,000 people descended on the Adaminaby dam site to watch McKell, flanked by Chifley and Lemmon, push the plunger in the symbolic beginning to the massive earthworks for the dam and for the Scheme.¹⁷⁷ Foremost in the policy speech of Chifley, given in mid November, was the need to avoid unemployment, thus the value of the "huge developmental projects" that would "provide the foundation for the expansion of all kinds of industry."¹⁷⁸ Through a socially directed infrastructure planning program, demobbed soldiers, school leavers and migrants would continue to find employment. He rejected the social and economic waste associated with less than full employment and the policy of "just a nice six or eight per cent of unemployment...to keep the fear of the sack in the hearts of all the rest."¹⁷⁹ The Government was keen to embark upon "migration plans on a scale not attempted before in this country." These would be "continued vigorously" until "Australia has the population she needs to achieve the development of all her resources and guarantee her security."¹⁸⁰ It was, however, the coal strike, rationing and bank nationalisation issues that dominated the election and the Scheme's fate was uncertain as the new, Menzies Coalition government took office.

This review of the interplay between engineering planning and federalist politics is a crucial moment in the history of south east Australia's eco-cultural formation. With the enlarged Scheme, more of the environments of south east Australia were to be structured by systems. Beyond choosing between one valley or State, many valleys around the Alps were to be devoted to serve irrigation and to power the south east Australian electricity grid. High, 'rogue' rivers would be diverted through conduits for orderly energy transfer. Whole staircases of water would slip silently

¹⁷⁶. Lewis, 1971, op. cit., Appendix 8, p. 1.

¹⁷⁷. "Snowy River Project Started", *SMH*, 18/10/49.

¹⁷⁸. "No Glittering Promises", [Policy Speech by Chifley, broadcast on the 14th of November 1949], in Stargardt, A. W., (ed), *Things Worth Fighting For; Speeches by Joseph Benedict Chifley*, Melbourne, Melbourne University Press, 1952, p. 74.

¹⁷⁹. *Ibid*, p. 75.

¹⁸⁰. *Ibid*, p. 82.

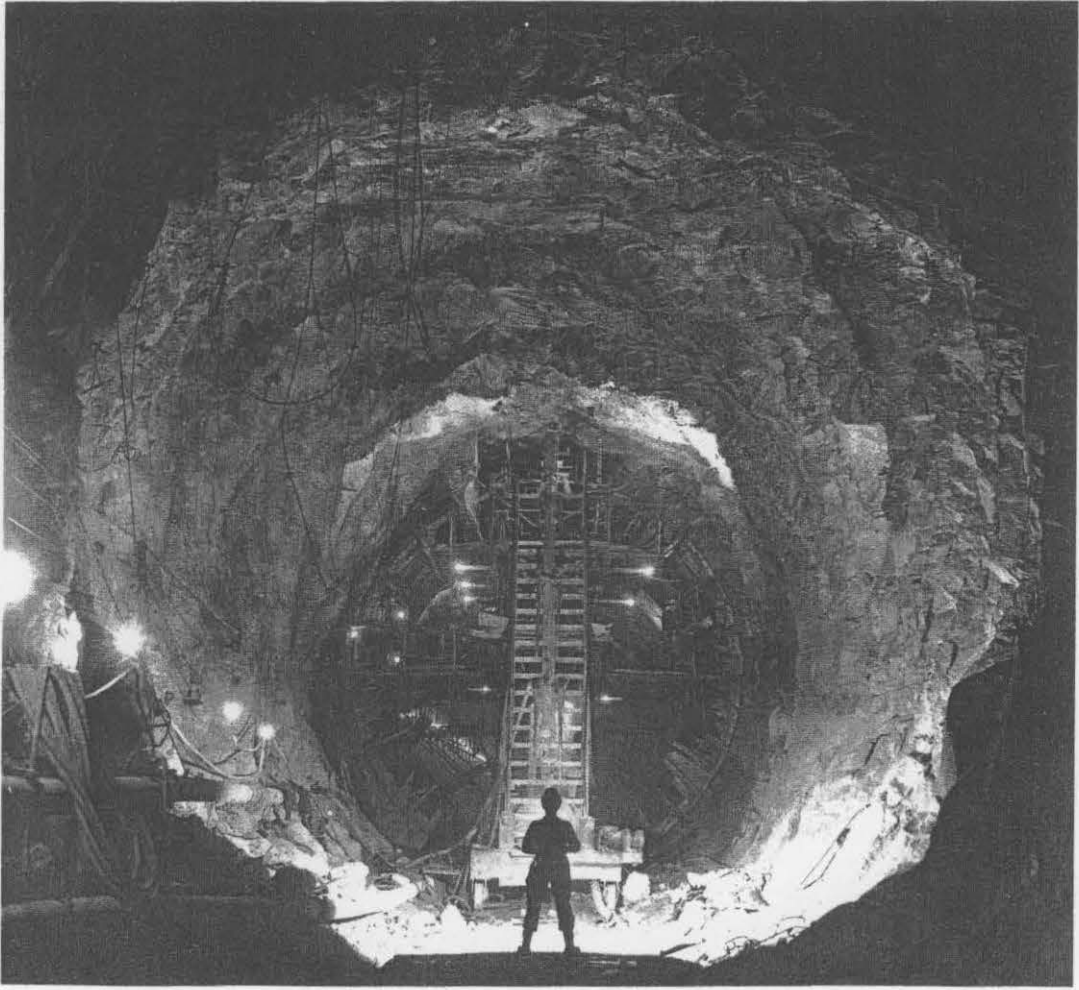
through underground tunnels and power city trains through their own subways. River valleys would become huge bunkers and long conveyors of water to mechanised crops and pastures--'fordist rivers'--with diverted, regulated and timed river flows.

It was, at the time, a politically tenuous outcome. Through what appeared to be little more than an uneasy agreement between Labor leaders, buoyed by the rhetorics of 'thinking big' and in the midst of a battle against the High Court, the Commonwealth Scheme was kept alive. Even as its implications for 'Central-State control' outraged the States and private capital, those dedicated to the Scheme persisted. In support, the engineers favoured doing a 'proper job', planning an integrated Scheme for the whole Alps--if not for the Basin as well. If not extending beyond the Alps, it was an integrated plan for tunnelling to post-war horizons of nation building via a 'cathedral' of subway rivers (figure 16). But it was a stumbling toward a 'light on the hill'. The Commonwealth's expertise, taxation powers and responsibilities over rivers were combined with progressive, constitutionally circumscribed, then furtive politics. All seemed to presume that withholding and/or massaging information was a necessary part of the federalist process.

It could be argued that, in testing circumstances, nation-building politicians were seeking to protect a full employment economy whilst steering between the security of Sterling balances and multilateral hopes for a more equitable and dynamic world economy. At a crucial moment, as Chifley became radicalised by threats to his banking and hence planning hopes, the push to gain control of the Scheme overcame New South Wales' claims. For the Commonwealth engineers, there would be 'no more Burrinjucks', that is, no projects compromised by short term strictures. Even within the dominant, quantitative engineering assumptions of the time, it was a bold, long term plan, fulfilling the hopes of the federalist water engineers from at least ten years earlier.

But the Chifley government was increasingly on the constitutional defensive as private banks objected to centralised controls and as conservative States battled to retain their own banks. In such circumstances, the actions of Loder and his fellow engineers were primarily designed to protect the Commonwealth's role within resource development--both irrigation and electricity development. This restricted,

Figure 16; Photograph, Tumut 2 Tailrace Tunnel, SMHEA, from Collis, B., *Snowy: The Making of Modern Australia*, Rydalmere, Hodder and Stoughton, 1990, back cover.



pea-and-thimble process of federalist politics also structured the design of the Scheme. In the same ways that the railway systems of Australia favour their own city-state economies, the division between the two States of New South Wales and Victoria is writ large in the north-south division of the scheme. In support of this compromise, alpine rivers would be more intensively 'suburbanised'. At least the massive amounts of water diverted were to be shared between two major rivers.

To manoeuvre such that the plans for the Upper Tumut especially remained hidden, to be used as 'counters' at the strategic moment in the committee process, was the primary means. The delay in releasing comprehensive design options to members of the same committee, from the co-ordinating committee, from other governments and their representatives shows Loder and the other engineers as adept institutional politicians. They had a well developed sense of how to stage techno-political outcomes as a way of defending departmental agendas. This amounted, however, to more and more manoeuvring within the enclosed confines of a polity dominated by stratagems for gaining the upper hand.

Rather than allowing or encouraging debate in the media and public fora about differing perceptions of productivities or riverine risk, rather than cultivating civic capacities, the process impeded outcomes. This arose as the Commonwealth engineers sought to with-hold outcomes for the advantage of institutional and political cycles. A balanced separation of powers implied by a federalist form of government provides the basis of checks and balances. But without adequate adherence to the terms of reference--to compare two proposals--other bureaucrats were less able to evaluate rival proposals and, thence, of going public. Because of the short falls, reconciling the local to the universal in a geographically dispersed, federal democracy, was impeded.

The Snowy Shire and South Eastern regional groups and the Snowy River itself below Jindabyne had only a brief interval within which to intervene. Confusing mis-information continued to provide a false impression as to who, when and how their riverine interests would be protected as the engineers and politicians pressed on with their popular Scheme. Commonwealth engineers, even as they effectively challenged Brewster's claims over Blowering, came to be seen as remote. Those in the Murrumbidgee Valley were merely reacting to what Brewster fed them. As

Blowering re-emerged, Brewster himself was embarrassed. Those in the Murray Valley, explicitly at least, adopted a technocratic faith in planning, placing themselves by default in the hands of whatever the experts decided but were eventually forced to 'be political'. On occasions, interest groups were articulated by the experts, disabling prospects of infusing local knowledges into the often equally worthy, if often abstract, 'universalising' knowledges of expertise. And by such manipulation, engineers were increasing the risk of how they would be perceived outside--and within--the political process.

Without broader, overlapping powers enabling an awareness of the limitations of rival systems, the engineers were less able to mount internal critiques. Olsen, for example, even as he sought to critique irrigation, was not attuned, along with the Commonwealth's hydro engineers, to the doubts of the Commonwealth's Rural Reconstruction Commission. East sought to critique Brewster's support for the re-diversion canal as wasteful, but, as a fellow irrigationist, was not demanding that soil surveys be completed. Symptomatically, the suggestion to contain the Scheme within the multipurpose Conservation Authority proposed by New South Wales was over-ruled by a Commonwealth intent on using its defence powers. Defensively, Commonwealth engineers avoided making plans available and could only call upon their own resources when evaluating alternatives. In short, the defence powers were convenient for securing control but did not encourage the development of institutional bases for the critique of rival options.

Engineers were being forced to ghost the political process rather than feeding or enhancing the ability of politicians to debate issues. Overlapping Commonwealth responsibilities across all fields may have provided greater confidence in being able to counter rival institutional critique. Greater access to the plans of all the engineers would have arisen. Instead of seeing the outcome as a worthy victory for the nationally interested Commonwealth against the parochial states, therefore, the evolution of the scheme is also a moment of an enclosed, increasingly defensive federalism.

These problems were compounded by a faith in autonomous expertise. The 'logic' of the expanding, 'broader vision', 'full utilisation', 'master plan' approach to technology supported the engineers as they combined the

proposals and kept them hidden. Although an imaginative solution, this 'full utilisation' approach to harvesting the water cycle was favoured as it supported only majoritarian, instrumental political forces. Arising in the context of an earlier 'Lilienthal-like' hegemony of planning as 'scientific', planning imperatives joined with a political acceptable outcome as, supposedly, a democratic achievement. Greater consultation may have evolved a more modest, staged and co-ordinated array of possibilities, taking advantage of the rival Kiewa option and modest Snowy options. A lack of broadly constituted Commonwealth powers also meant an enlarged outcome. Given these institutional and political shortfalls, the outcome implies the success of a technocratic strand within Australian engineering culture.

In sum, even as a way of defending against the chaos of markets, the political process was a factor to be second-guessed, to be factored into the plans. Their goal was to achieve the techno-politically suitable outcome whilst avoiding debate. Politics *is* recognised, but, given a circumscribed, constitutional role, politics is merely another 'parameter' of federalism which the engineer--and politician--has to take into account when designing infrastructure. Politics becomes less of a process by which outcomes may be significantly recast or re-interpreted as part of discussion and inclusion. But as the High Court was proving antagonistic on parallel issues, there was little enthusiasm for well balanced, institutional critique.

Nevertheless, the conservative parties had begun to catch on. The need to transcend the city/country and power/water split had dogged their side of politics. How the two could be made to work together, by conservative political compromises, within a broader production-consumption or resource extractive approach, was the great task taking shape as Menzies came to power.

Chapter 4: Now Bloomed by Diesel Fumes

The third planning choice considers the increasingly elaborate methods used to argue for a further enlarged Scheme. As Adaminaby Dam was tripled in size to become Eucumbene Dam, the Commonwealth was faced with continuing opposition from the States, doubts by engineers and much opposition to its centrist, planning role. But the new Menzies government was determined to persist, this time according to its own political priorities. Within seven months of the Menzies Coalition government taking office, and after two years of stressing international Cold War polarities, Mao Zedong had come to power in China and the Korean War had commenced. In the rapidly developing Cold War context, the need to place the economy at readiness for war then emerged as an imperative for the new government. As legislative attempts to ban the Communist Party proceeded through 1950, 'Australia Inc.' public relations soon suggested that a "good Australian" would recognise the need to "work more intensely" for the quick completion of hydro projects for defence and security. An Australian would also be able to recognise the "the shadow of an international communist conspiracy" (figure 1). These advertisements, from the AWU's *Australian Worker*, also suggested that it would be "foolish" to imagine Australia surviving "unaided" against such a threat.

Facing such a threat, defence was connected with the need to address the dollar shortage. In contrast to Chifley's doubts, this soon involved a re-orientation for Australia away from the Sterling area.¹ In a parallel move to that of the Democrat President Truman, a National Resources Security Board (NSRB) was formed.² Justifications for development were to be addressed to the Board, which would review them in terms of the need to secure funding for defence, a new priority under the incoming Government. Joining external and internal strategies, it sought to build a new economic relationship with the US that would intensify economic development, enable defence preparations whilst easing inflationary pressures.³

¹. Australian membership of the Sterling bloc meant that it had to restrict the amount imported from the US, that convertibility between dollar and sterling currencies was restricted and that preferential tariffs were given to British exports.

². Lee, D, "Cabinet" in Prasser, S. et al (eds) *The Menzies Era*, Sydney, Hale and Iremonger, 1995, p. 129.

³. Lee, David, *Search for Security*, Sydney, Allen and Unwin, 1995, pp. 108 and 143.

Figure 1; Advertisement, "Are You a Good Australian?", *The Australian Worker*, 18/10/50, p. 4.

QUIZ

Are you a good Australian?



You and your family are proud to claim the "Australian Heritage" which you now enjoy in a world where millions of people live in abject slavery, without any rights at all. Yes, in an age where tyranny blackens half the globe, it's a wonderful thing to be an Australian. But do you take your Australian citizenship for granted? Australia invites you to answer this simple "Quiz" just to find out how good an Australian you really are.

— MARK YOUR ANSWER YES OR NO —

1 Has it occurred to you that Australia would be in real danger in the event of aggression by a heavily armed foreign power?
Answer Yes No

2 Have you considered whether you personally can help Australia in these critical times by joining the Navy, the Army or the Air Force?
Answer Yes No

3 If it is not possible for you to serve full-time, have you considered joining the Citizen Military Forces, now a vital factor in Australia's armed strength?
Answer Yes No

4 Do you have that "couldn't care less" attitude to the great problems Australia is facing today?
Answer Yes No

5 Do you believe everything you hear from rumour mongers instead of having faith in Australia and yourself and preparing to work and fight for our free democracy?
Answer Yes No

6 Do you ask before you do anything, "What do I get out of it?" without considering how you can help the community? Yes No

7 Do you realise that Australia's future security depends largely on everyone's willingness to work more intensely to increase Australia's total production? Yes No

8 Has it occurred to you how vital it is for Australia's defence and prosperity that hydro-electric schemes, irrigation plans and other projects for national development be completed quickly? Yes No

9 If you are an employer, are you fully aware of your responsibility to play your part in the national drive for increased production?
Answer Yes No

10 Are you so foolish as to imagine that Australia can survive unaided and alone in the shadow of an international Communist conspiracy? Yes No

WHAT WE DO NOW WILL SHAPE AUSTRALIA'S FATE AND FUTURE

If you are really an Australian you'll be able to answer all these questions without the slightest hesitation. If any question makes you feel uncomfortable, now is the time to do something about it. Whether you are an employer, manager or employee, you can work more intensely to produce more goods. You can put the brakes on senseless spending. You can choose the section of the Navy, Army or Air Force in which you are best fitted to serve on a full-time or part-time basis.

IT'S UP TO YOU!

Specifically, during July and August 1950, after some preliminary inquiries by Casey,⁴ Menzies was in Washington securing a large dollar loan from the International Bank for Reconstruction and Development (IBRD and, later, World Bank). Australia constructed a case for a loan as it would modernise Australian agriculture by importing capital intensive equipment and raise output. Inter alia, it would counter the Sterling trading bloc and also address regional security consistent with US interests:

Particular emphasis is given to agricultural production in which Australia has a pronounced comparative advantage. It is argued that the developments proposed will; (i) help restore a workable pattern of world trade; (ii) build up the population by permitting migration at a substantial rate; (iii) strengthen Australia as the focal point in South East Asian affairs.⁵

As the US Secretary of State, Dean Acheson, characterised the visit, "Menzies...slipped into town hardly noticed and in a day and a half was gone again with a loan of two hundred and fifty million dollars from the World Bank for Australia's great water and power development."⁶ After committing to supply troops to Korea, Australia had quickly become a privileged borrower, the Asian Director of the Bank bemoaning the "liberal attitudes"⁷ shown towards this Australian coup. In short, given the "main target" of the American's was to end the Sterling trading bloc and to institute a "global economic order"⁸ to protect trade and security, Australia and the Snowy Scheme, which led submissions, gained a highly favourable reception in Washington. By the mid 1950s, in fact, Australia would be the largest single borrower from the Bank and would be receiving almost as much as the whole of Asia combined and more than the whole of Africa.⁹

This capital inflow would supply equipment of all sorts, but specifically for agriculture, to build the many dams and irrigation projects that the

4. Casey to Menzies, 23/2/50, NAA: M3759, 45, *Correspondence. Snowy Mountains Hydro Electric Authority and Minister for National Development.*

5. Bank Mission Working Party, "Tentative Programme For Preparatory Work", 15/11/50, p. 2, NAA: A462, 559/1/9, *Dollar Loan - Advisory Panel - Bank Mission Working Party - "Economic Development In Australia"*.

6. Mason, E. S. and Asher, R. E., *The World Bank Since Bretton Woods*, Washington, The Brookings Institution, 1972, p. 272.

7. Ibid.

8. Lee, op. cit., p. 7.

9. "Big Borrowing", *Industrial Victoria*, October 1955 (Vol. 7, No. 7), p. 491.

submission emphasised. This approach down played the importance of manufacturing, an area of most concern to the Americans. As the President of the Bank reported to its directors, the Australian government was "not wishing to give high priority to a further general expansion of manufacturing capacity"¹⁰, except in so far as it would support agriculture and mining in particular. The application of large American earth moving, land clearing and other agricultural machinery would thence enlarge the Scheme, expand the scope for US interests and lead the shift away from Sterling. The British, however, were proposing co-ordinated aid for the region via the Colombo plan.¹¹

With Menzies having secured an International Bank loan in July 1950, it was not long before United States Bureau of Reclamation (USBR) engineers were arriving in Australia. The Assistant Chief Construction Engineer of the USBR and a tunnelling expert, W. A. Dexheimer, came in November 1950 and set about challenging assumptions. It had been planned that construction was to be carried out by both day labour and contract methods¹² but Dexheimer stressed other possibilities. He argued that "the present staff will be entirely inadequate unless the greater proportion of the investigation, design and construction for initial work is accomplished by outside means."¹³ For Casey, as reported by Treasury, "if the design work is to be done at all in the near future", especially given the scale of the nation-wide construction program, preparation of detailed specifications for the Upper Tumut works would need to be negotiated with overseas contractors. Looking to the 'Big Eildon' dam project in Victoria constructed by Utah, Casey also supported an incentive-based contract approach to Cabinet.¹⁴

A bold policy approach, relying on US capital-intensive methods, had been formulated. But translating the aims of the Menzies government into a

¹⁰. Annex II, "The Main Lines Of Development in which the Bank Proposes to Participate", annex to Report by the President of the Bank to Executive Directors, "Commonwealth of Australia", 10/8/50, World Bank Archives (New York).

¹¹. Lee, *Search for Security*, op. cit., p. 144.

¹². Casey, Cabinet Submission, 7/12/50 for the meeting of the 13/12/50, NAA: A571, 1956/1038 Part 5, *Snowy Mountains Scheme*.

¹³. Dexheimer, W. A, "Report on Snowy Mountains Development...", 23/11/50, p. 35, NAA: A462, 318/5, *Snowy Mountains Hydro-electric Authority - Employment of American technical personnel*

¹⁴. Casey, Cabinet Submission, 7/12/50 for the meeting of the 13/12/50, NAA: A571, 1956/1038 Part 5, op. cit.

federalist or internally workable political strategy, via such a deal, was also required. Menzies, as noted in the previous chapter, initially supported a greater role for the States.¹⁵ Then, within the bureaucracy, from March to June 1950, Bailey and others in the Attorney General's Department had vacillated about the worth of a defence justification for the Scheme.¹⁶ With section 100 of the Constitution in mind, they believed that the associated water supply aspects "appears to be clearly outside the Commonwealth powers."¹⁷ Instead of Chifley's defence rationale, Bailey therefore suggested two agreements, one between the States and the Snowy Authority "dealing with the generation and distribution of electricity", and the other between the Commonwealth and the States, "dealing with irrigation on the basis of a grant of financial assistance by the Commonwealth to the States."¹⁸

Advice to Menzies from within his Prime Minister's Department did not, however, favour even this limited, joint approach. The Secretary of the PM's Department, Brown, feared that even this option would cause the States to demand joint control.¹⁹ For Brown, it was worth taking the risk of proceeding because "later, when the scheme is declared to be unconstitutional, it invites the States to join with it in providing the necessary legal basis to salvage a great national undertaking." However, "if an immediate challenge is made [by the States], this course has less to commend it." A third approach was again offered; "the only other course is inaction--just go ahead and stall the States off."²⁰

Meanwhile, both the two major States were seeking to secure their electricity supplies, independently. The severe electricity shortages of winter 1948, and those anticipated for winter 1949, had prompted the New South Wales government to declare a state of emergency. Efforts to meet the current post-war backlog had, however, resulted in an "unco-ordinated scramble to get four similar jobs done at once" resulting in each job being

¹⁵. Loder to Brown, 16/12/49, NAA: A462, 318/2, *Snowy Mountains Hydro-electric Scheme - Agreement between Commonwealth, NSW and Victoria*.

¹⁶. "Opinion", draft, Bailey to Loder, circa June 1950, p. 2, NAA: A432, 1978/7044 Part 1, *Snowy Mountains Hydro Electric Scheme - Agreement and Legal Problems*.

¹⁷. "Snowy...Scheme", report by Acting Parliamentary Draftsman, 6/9/51, PRO: VPRS 1163/P, Box 936, file P52/4432, *Snowy River*.

¹⁸. Bailey to Brown, 18/7/51, NAA: A462, 318/2, op. cit.

¹⁹. Brown to Menzies, 4/10/50, NAA: CP608, Bundle 2/1, *Snowy Mountains Hydro Electric Scheme - Agreement Papers*.

²⁰. Ibid.

"unduly prolonged...and cost inflated."²¹ The rate of demand for power was estimated to be doubling every ten years.²² Appointing Conde from the Electric Light and Power Supply Corporation (Balmain) as Emergency Electricity Commissioner to co-ordinate rationing between the separate generating authorities, by March 1950, Cahill had also introduced a bill to co-ordinate generation via a New South Wales Electricity Commission.²³ A junior player, the Electricity Commission of New South Wales (Elcom) was formed. For its part, the SECV, as well as seeking to build Kiewa and Morwell Briquette, was seeking loans in London and was planning further extensions to Yallourn Power Station.²⁴ Stations at Morwell, Richmond and Spencer Street would also contribute²⁵ (figure 2).

In parallel with its coal independence policy the SECV had also begun a significant public relations campaign. In 1948 it had published *Three Decades*, a colourful review of its 'company' history. Then, from 1949, it had initiated a film documentary series producing *Power From Kiewa Waters* and *Pageant of Power*. Further material would be produced, such as *Let's Visit Yallourn*, a guided image-text tour of the "astonishing" scale of the Yallourn Open Cut and the sublime wonders of megatech²⁶ (figure 3). Image making mobilised by the instrumentalists emphasised the mind-boggling scale and massive transformation of place wrought by the technology. Most importantly, the mobilisation of these images could provide another device in the competition for scarce financial resources, especially as the gap between planning and constitutional powers, as interpreted by the States in particular, would continue to widen.

Similarly, from its moment of establishment, the Snowy Authority formed a publicity program. Gray, a journalist, was hired and began to draw upon the precedent of national significance set by the American TVA as a model for Snowy Scheme publicity. Already a nationally recognised icon of development, the Snowy Authority should, he believed, emphasise "the national importance of the task...what is needed is information at all levels

²¹. "How Electricity Failures Handicap Development", *SMH*, 4/9/50.

²². Conde, H., "Blackouts will be over by 1953", *Daily Telegraph*, 17/10/50.

²³. Wilkenfeld, George, *The Electrification of the Sydney Energy System 1881-1986*, Ph. D Thesis, Centre for Environmental and Urban Studies, Macquarie University, 1989, p. 178.

²⁴. Harvey, C., *Yallourn Power Station: A History 1919 to 1989*, Melbourne, SECV, 1993, p. 248.

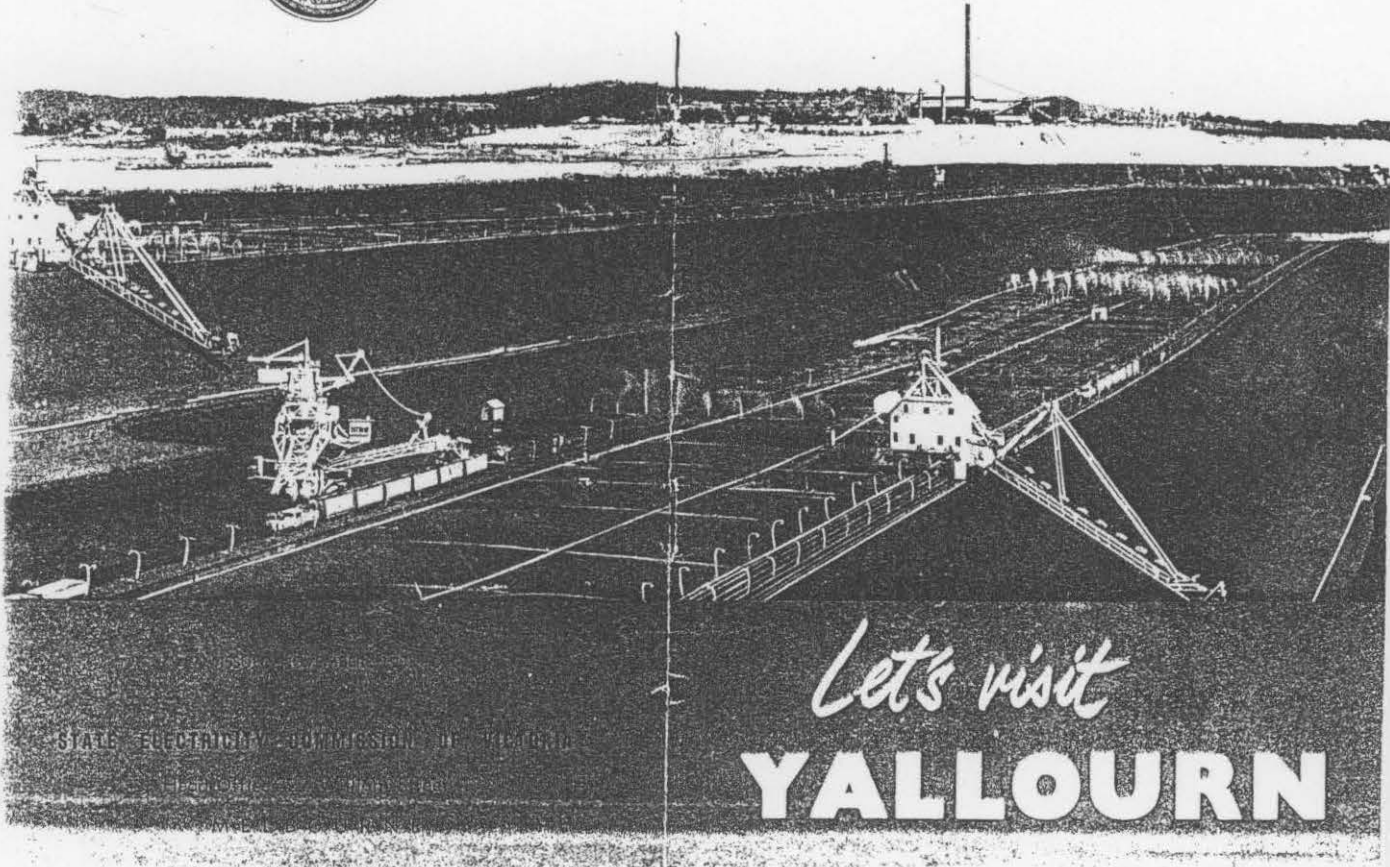
²⁵. "Premier Hits Back at Mr. Casey", *Swan Hill Guardian*, 16/2/51.

²⁶. SECV, *Lets Visit Yallourn*, Melbourne, SECV, 1953.

Figure 2; Graphic of the Morwell Briquette Factory from SECV, *Three Decades*, Melbourne, Hutchinson, 1949, graphic facing p. 140.



Figure 3; Pamphlet, SECV; "Let's Visit Yallourn", Melbourne, The Commission, 1953.



of population and using the most diverse media to sustain interest and develop it at all stages of the growth of the project."²⁷ To reach the general public film, radio, newspapers, magazines, display advertising, exhibitions, lecture tours and conducted tours of the site should all be employed. Journalists appointed by the Authority should also prepare magazine articles and also radio segments. Gray proposed a budget of between 30 to 50 thousand pounds per year. Hudson was, initially, cautious: the best publicity, he believed, would be for the Authority to do its work "quickly and well."²⁸

On the other hand, Hudson welcomed the filming of the project from the very first days of the Authority. He also favoured doing most of the work in-house, although the Film Division of the Department of the Interior, working on behalf of the National Film Board, would need to assist, at least initially.²⁹ Similarly, newsreel companies were to be allowed to make films "of general public interest", provided that they agreed to show the films to the Authority "for checking" before exhibition.³⁰ Indeed, in evolving its own skills and in-house style, the Authority would learn from both government and private film makers.

Consequently, from late 1950, Litchfield Films was permitted to shoot a film, *Rubber Builds Dams*, for Dunlop, including scenes from the emerging construction sites. Drawing parallels between the recent war effort, with Cooma the "frontline base" for earth movers and the "supply dump" for tyres whilst housing the "men who plan this battle", Dunlop "is proud to be taking an important part."³¹ The scheme was heralded as "another Kokoda Trail, with the prize of victory almost as important." Concurrently, the Communist Party Dissolution Act had just been passed by a torn, Labor-controlled Senate but was soon challenged in the High Court by the Communist Party of Australia and by several unions.³² Menzies was

²⁷. SMHEA/Gray, L., "Preliminary Comments and Recommendations on Publicity Programme", 19/12/49, p. 1, in NAA: A2915, B1, *Snowy Mountains Hydro-Electric Authority - Public Relations - General Policy*.

²⁸. Hudson to Secretary, SMHEA, 28/12/49, NAA: *ibid*.

²⁹. See for example Hudson to Stanley Hawes, Producer-in-Chief, National Films Board, 19/7/50, in NAA: A2915, B242 Part 1, *Snowy Mountains Hydro Electric Authority - Public Relations - Filming of Project by Snowy Mountains Authority*.

³⁰. *Ibid*.

³¹. Litchfield Productions Pty Ltd, "Rubber Builds Dams", [film script], circa November 1950, NAA: *ibid*.

³². Lowe, D., *Menzies and The Great World Struggle: Australia's Cold War 1948-1954*, Sydney, University of New South Wales Press, 1999, p. 65.

expressing great fears about an imminent world war, requiring extensive economic mobilisation for defence. In the film script, in line with the more dire perceptions of international and local crises, the battle for peace, conducted by machinic and manly efforts against an intractable nature, continued:

...the men who are building the dams must get through...the river fights conquest every inch of the way...Roads *must* be forced through what was virgin bush...Men and machines must fight their way through...Men and machines combine in an assault on nature...³³

Competition for investment funds was also steadily growing. By February 1951, the SECV feared that the Snowy Scheme, unless scaled down, would slow down its own projects.³⁴ The SECV remained keen to proceed with its own lignite first approach; "the requirements for peak load low load factor [hydro] plant over the next 20 years...are practically non-existent."³⁵ City based thermal peak plant would suffice and any new hydro was out. Thorn, the Engineer for Production for the SECV, would elaborate these views later in the *Institution of Engineers Journal*. He would not accept the paradox that, as was being proposed for this megatech hydro scheme, "the annual value...increases as the load factor decreases and the cost per kilowatt-hour increases!"³⁶ A strict replacement of hydro for thermal was preferred, not a complementary peak and base load systems combination (figures 4 & 5).

The US designers were, however, seeking to expand the Scheme for such a complementary role. As the new Assistant Commissioner, Tom Lang, reported, Dexheimer was "by no means certain that the Adaminaby Dam was being built in the right place."³⁷ By mid 1951, a dam of up to 3 million acre feet was being mooted.³⁸ Dexheimer also suggested that because of its deep shafts, tunnels and race-lines, "parts of the project appear very questionable economically."³⁹ In short, Dexheimer was seeking significant

³³. Ibid [emphasis in original].

³⁴. "Snowy River Plan Impeding Victoria", *The Age*, 24/2/51.

³⁵. SECV, "Notes on the Snowy River Project", 13/3/51, p. 1-2, PRO: VPRS 8892/1, 643, 50/13585, *Snowy Mountains Hydro Electric Scheme*.

³⁶. Thorn, W. "The Application of Low Load Factor Hydro...to Thermal Generating Systems...", *The Journal, Institution of Engineers, Australia*, Vol. 24, April-May, 1952, p. 92.

³⁷. Lang to Brown, 10/5/51, NAA: A462, 318/5, op. cit.

³⁸. Minute, SMHEA, 17/5/51, NAA: A5638, AF233, *Adaminaby Dam - alternative sites*.

³⁹. Dexheimer, W. A. "Report...", 23/11/50, p. 34, NAA: A462, 318/5, op. cit.

Figures 4 & 5; For two graphs of daily load curves, which firstly define peak, intermediate and base load concepts then show how old steam plant and Tumut etc plant fill the need, see "Total Interconnected Daily Load Curve, Day of Maximum Demand, 1955 and 1963" (fig. 3) in Aston, F. J., and Wilson, J., "Planning the Development of the Electricity Supply Industry in New South Wales", *The Journal of the Institution of Engineers, Australia*, Vol. 36, December 1964, p. 297 and also "Typical daily load curve of interconnected system, winter 1963", (fig 3.4) in Diesendorf, W., *The Snowy Mountains Scheme: Phase 1 - The Upper Tumut Projects*, Sydney, Horowitz, 1961, p. 34.

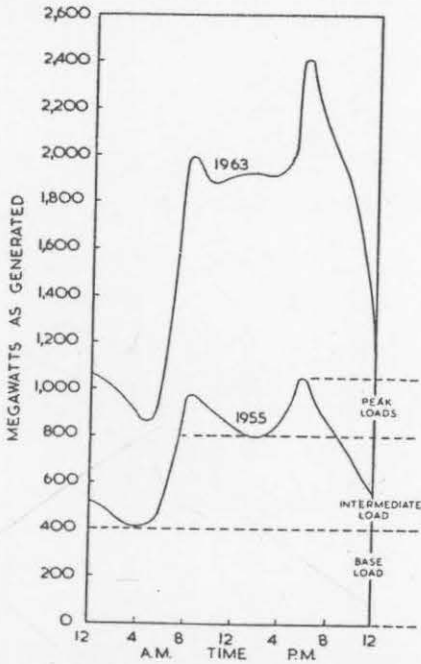


Fig. 3.—Total Interconnected System Daily Load Curve, Day of Maximum Demand, 1955 and 1963.

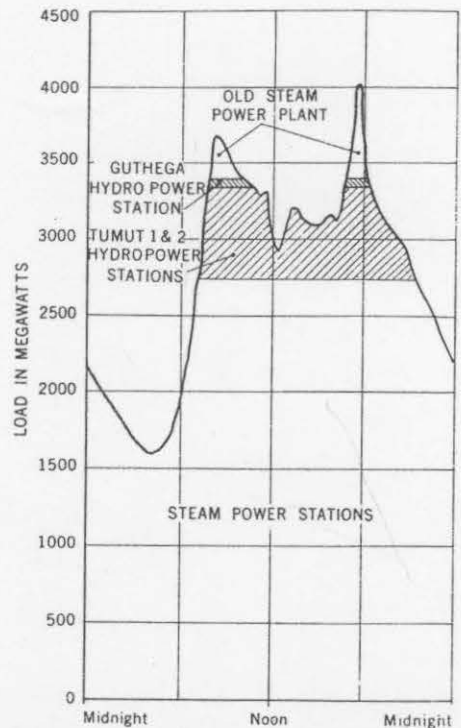


FIG. 3.4. Typical daily load curve of interconnected system, winter 1963.

design revisions, based less on race-lines and more on earth filled dams for large storage and upon the new earth moving equipment. He also appeared to be angling for the employment of US Bureau engineers by stressing the scale of work under review and by raising doubts that still existed about the viability of the Scheme.

In line with the strategic aspects of the expansion and the need for 200 or so engineers from overseas, Casey supported Dexheimer's conclusions to Cabinet.⁴⁰ Detailed design work, specifically the preparation of specifications and contract drawings for much of the Upper Tumut project would soon go to the USBR, a development which assisted major US contractors, well used to tendering according to such a system. The training of Australian engineers at the USBR would act as a cover for the strategic involvement of the Bureau. As its Act prevented the Bureau from providing services to foreign governments if they could be adequately provided by private capital, the Australian Embassy in Washington advised that "it would assist in overcoming this difficulty if the project could be given a training slant..."⁴¹ Both private and public capital in the US were suffering from layoffs as a short recession in the US had arisen and the extra work was welcome. Hudson soon reported that it had "been arranged that nearly all major works will be executed by contract, in most cases by the employment of large overseas firms."⁴²

After the Senate refused to pass Menzies' legislation to introduce private bankers onto a Commonwealth Bank Central Bank board,⁴³ from March to April the country was in Double Dissolution election mode. Primarily, however, the High Court had rejected the Communist Party Dissolution Act as this was only permissible during a time of war. A proposed constitutional amendment to ban the communists (and to control labour) was the major issue. As expenditure restrictions were being relaxed, Menzies cleverly linked the resulting inflation to the industrial influence of the communists. Menzies won the election and a workable majority in the

⁴⁰. [Bunting to Casey], Cabinet Decision of the 30/3/51, 5/4/51, NAA: A571, 1956/1038 Part 5, *Snowy Mountains Scheme*

⁴¹. Cablegram, Australian Embassy Washington, to Casey, 19/4/51 and see O'Donnell to Nette, 27/4/51, NAA: *ibid.* For later developments, see NAA: A462, 318/5, *op. cit.*

⁴². Hudson to Spooner, early June 1951, NAA: M3759, 48, *Correspondence. Snowy Mountains Hydro Electric Authority and Minister for National Development.*

⁴³. Butlin, S. J., "Australian Central Banking, 1945-59", *Australian Economic History Review*, Vol. XXIII, No. 2, Sept. 1983, p. 161-3.

Senate and, although conceding five seats in the House, could thence push on with efforts to ban the party.

Behind the scenes, seeking to counter inflation, senior bureaucrats were suggesting that co-ordinated, deflationary (Keynesian) policies be adopted.⁴⁴ Coombs was also working on the longer term task of setting up Special Account deposits by which the lending of the private banks would be regulated. This would not be completed until mid 1956.⁴⁵ In the meantime, for the increasingly crucial bureaucrats, the immediate problem remained one of how to keep rates of interest low, with expenditure hopes for infrastructure burgeoning, nation wide (figure 6).

By mid June, Menzies was foreshadowing to the Loans Council that development--and defence--priorities must be set in this "scramble...for resources."⁴⁶ New South Wales, however, was becoming more and more concerned by the delays in negotiating the Snowy Scheme.⁴⁷ Yet with pressures mounting on the overall levels of expenditure, others in New South Wales saw the 'socialist' Snowy Scheme as the project to be cut. The *Australian Monthly* magazine, a Packer or Consolidated Press publication, took direct aim at this largest of government jobs, this "Loafers Paradise" as the article characterised the Scheme.⁴⁸ Also critical was the strident anti-communist, W. C. Wentworth, as were others who were against the project.

Now, however, after the May election, concessions were seemingly made. Firstly, a new Minister was given the 'glamour' portfolio of National Development. Senator Spooner, a senior New South Wales Liberal and bankruptcy accountant, replaced Casey who went to the crucial External Affairs. Spooner was appointed, arguably, to keep Snowy finances in check (and to press for the mechanisation of coal mines). He was quick to defend the Scheme. Secondly, Kent Hughes, the ex Victorian Minister for Electrical Undertakings and now in federal parliament, had been appointed Minister for the Interior as well as for (Loder's) Department of Works and Housing.

⁴⁴. Schedvin, C. B., *In Reserve: Central Banking in Australia, 1945-75*, Sydney, Allen and Unwin, 1992, p. 186-7.

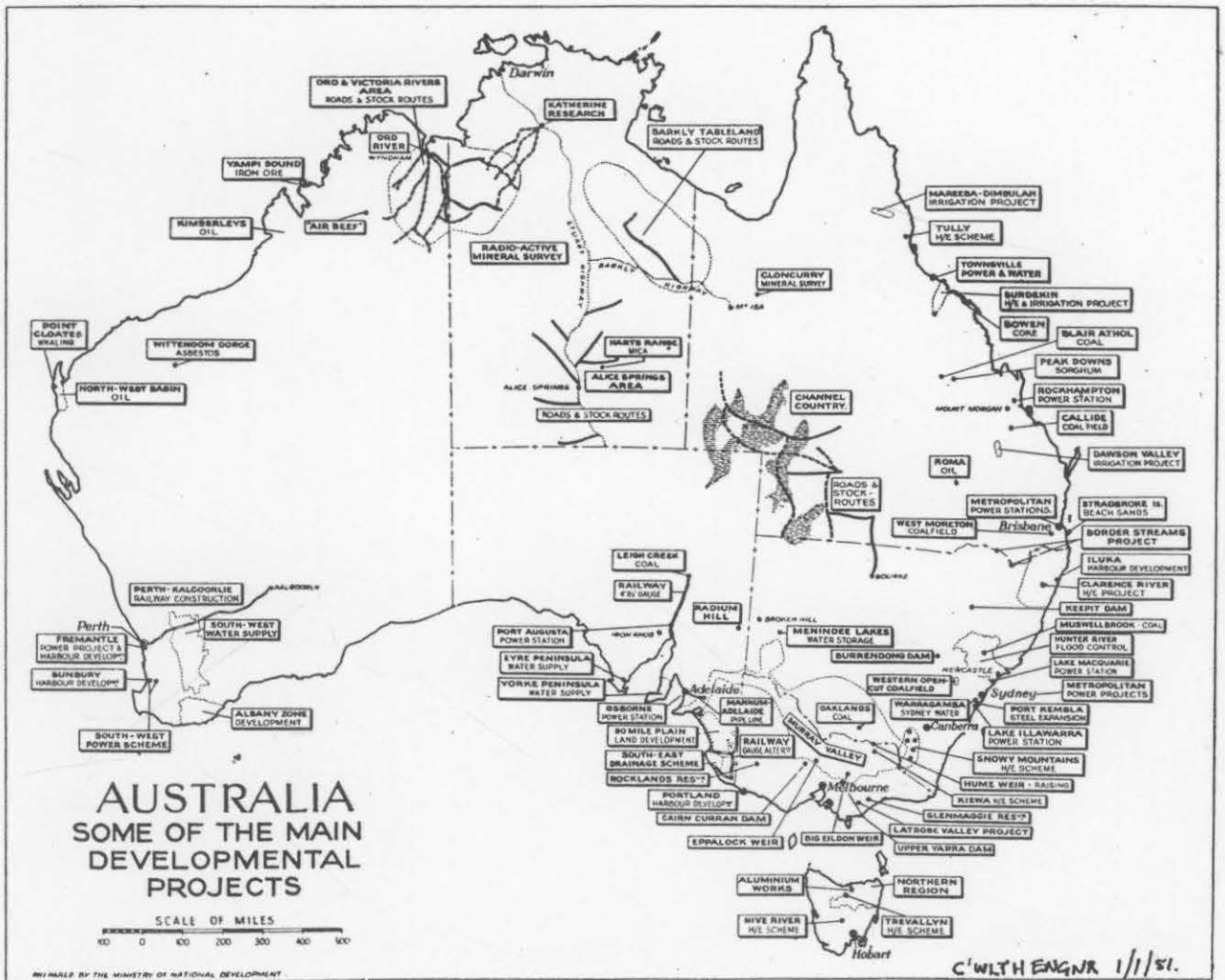
⁴⁵. Coombs, H. C. C., *Trial Balance*, South Melbourne, Macmillan, 1981, p. 157.

⁴⁶. Statement by Menzies to Loans Council, 18/6/51, NAA: A462, 397/45, *Financial Relations Between Commonwealth and States - Loan Council Meeting 1951-52*.

⁴⁷. "Silence on Snowy Power Work Alleged" *SMH*, 6/6/51, NAA: CP608, Bundle 2/1, op. cit.

⁴⁸. Davidson, P. et al "Loafers Paradise", *Australian Monthly*, July 1951.

Figure 6; Map; "Australia. Some of the Main Developmental Projects", from (fig. 1) *Commonwealth Engineer*, 1/1/51, p. 220.



He had been a vocal critic of the "raw deal" the States were getting under uniform taxation as they were being asked to finance much of their own works programs from loans rather than that left over from federal revenue.⁴⁹ After the reshuffle, however, it was Spooner who now had ministerial control of the Scheme. Then, in response to the co-ordinating and strategic emphases of Menzies, Treasury was conceding the need to "return, in some degree, to the conditions of a directed economy."⁵⁰

Further articles in the *Packer Daily Telegraph* followed, however, criticising the apparent wastage on the Scheme.⁵¹ Similar questions were also asked in the House. The next day, however, Menzies responded by outlining how war preparations related to long term development:

...many of the steps that will have to be taken to strengthen the economy against the danger of war will also provide firm foundations for future national development and for a stable, prosperous and peaceful community life.⁵²

Specifically, at a time when the country was vigorously debating the anti-communist referendum, which was narrowly lost in mid September, a two pronged approach to the Scheme emerged. A continuing centralised, or, very limited States-rights approach to the Scheme was to be tried. Bailey's legal strategy had emerged in combination with Brown's *fait accompli* approach--the two were by no means inconsistent. The government now sought "to represent the generation of electricity as the substance of the scheme and the provision of inland water for irrigation as merely consequential thereon."⁵³ At a time of Cold War emergency, it sought Commonwealth control via the defence or electrical power aspects, backed by its financial powers, which offered the inducement of financial assistance for irrigation. The draft was sent to the two Premiers in late July, 1951.⁵⁴

⁴⁹. CPD, H of R, vol 208, 14 June 1950, p. 4299-4303.

⁵⁰. Commonwealth Treasury, 'Points for Debate', 16/6/51, NAA: A462, 397/45, *Financial Relations Between Commonwealth and States - Loan Council Meeting 1951-52*.

⁵¹. "Snowy Charges Supported", 5/7/51, NAA: M3759, 48, op. cit.

⁵². Menzies' parliamentary speech, 6/7/51, from Lowe, op. cit., p. 10.

⁵³. Bailey to Brown, 18/7/51, NAA: A462, 318/2, *Snowy Mountains Hydro-electric Scheme - Agreement between Commonwealth, NSW and Victoria*.

⁵⁴. Menzies to McDonald, 20/7/51, NAA: A462, 318/2, *ibid*.

The centrality of plans for the Scheme was then underlined as expenditure priorities were set. With the Commonwealth using its casting vote against the four major States, the Loan Council slashed the funds available to the States infrastructure programs by 25%. In the case of Victoria, which was the most seriously hit State, especially as it had the most ambitious development program underway, funds were cut by 30%.⁵⁵ The Kiewa Hydro Electric Scheme, Eildon Dam and Morwell Briquette and Power projects came under severe pressure. The number of workers employed at Kiewa was cut by two thirds and work at Morwell was halted, with the project eventually halved. New South Wales would also see major projects such as the Warragamba Dam and Cahill Expressway delayed, as was the importation of 'package' power plant.

Even though it was vigorously opposed in the Loan Council--the four major States opposing it--the Commonwealth had determinedly used its casting vote to force the measures through. The Commonwealth would now provide in particular, financial assistance from revenue sources such as to make up the shortfall from what was available from public borrowing, but only to the amount--and hence for the purposes--deemed desirable by the Commonwealth.⁵⁶ Even as State projects would have yielded power more quickly, support for the Scheme better met both external and Coalition needs.

Of significant concern, however, was that the issue of Treasury bills--even as a surplus was projected--provided intermediate financial assistance. This could erode the value of the currency. The new private bank members of the Central Bank Board were against this approach of underwriting a portion of (what was left of) the State's capital programs as being "wrong in principle",⁵⁷ that is, it was, to them, centrist or socialistic. Nevertheless, in line with the desire of the Secretary to the Treasury, Wilson, to keep the emerging Commonwealth (Central) Bank away from fiscal policy, a short expansion of credit arose.⁵⁸ While the malleable, multipurpose Snowy Scheme continued to be supported, it was now aligned, politically, with

⁵⁵. various letters, Sept-Nov 1951, NAA: A462, 412/6, *Reduction in Governmental Programmes submitted to the Loan Council*.

⁵⁶. Mathews, R. L. & Jay, W. R. C., *Federal Finance*, London, Nelson, 1972, p. 203-4. Also see Table 28, p. 205.

⁵⁷. Schedvin, op. cit., p. 198

⁵⁸. Ibid, p. 198-9.

centrist banking, and could now be painted as a threat to monetary stability as well as to the financial autonomy of the States.

Significant tensions also arose within the Authority over the expanded Scheme. The need for many overseas engineers--and the larger dam--was not universally welcomed. Hudson complained to Lang about his hiring of USBR expertise, that it "...would mean handing over the planning and design work almost in its entirety to the United States organisation."⁵⁹ Lang was soon forced to moderate his enthusiasms.⁶⁰ Secondly, local engineers such as Olsen (now working for the Authority) favoured the upper, smaller site⁶¹ and, latterly, a two stage approach. Rowntree (and Potter of the Public Works Department of New South Wales) also insisted that a larger dam would not be justified for many years to come. A two stage approach would secure useable and therefore more valuable storage in the short term and also relieve construction demands until later, if needs be.⁶²

In January 1952, Hudson resolved the impasse by opting for the larger design--one of the largest in the world at that time, to be based on the design of the (ill-fated) Teton Dam in the US. In line with the strategic issues at stake, locally and internationally, and hoping that US engineering expertise and construction methods would speed work, Adaminaby was to become the Eucumbene Dam. As it was to be for 'general regulation', it also included a large irrigation component, to replace Blowering which had been put on hold. Overall, this was also a win for New South Wales, or, at least, Bridge Street. Achieving complementary economies of scale, it would guard against unreliable (hydro) peak power production. On the other hand, Elcom was against the granting of too much power to the Commonwealth, fearing that it might move to develop the Clarence Valley in Queensland and thence, as with the TVA, establish a competing grid, and subsequently, add steam plant.⁶³

⁵⁹. Lawler, P., note for file, 10/9/51, NAA: A462, 318/5, op. cit.

⁶⁰. Ibid.

⁶¹. Hudson to Lang, 19/6/51, NAA: A5638, AF233, op. cit.

⁶². Rowntree, "Report on Two Stage Development..." 30/10/51 and Campbell, D. E., "...Adaminaby Dam - Lower Site", 17/1/52, NAA: ibid.

⁶³. Elcom, "The Proposed Snowy Mountains Agreement", 25/10/51, Elcom (Pacific Power) file, SRNSW: 18/2206, 353/1, *Co-ordination of Works between SMHEA, SEC Vic, ECNSW*.

In line with the expanded plan and the US construction regime, and as these management techniques came to involve piece-rate or bonus systems, an even more demanding construction (as well as financial) schedule would arise. Eucumbene dam was to stay with the New South Wales Public Works Department, however, to be built with their own day labour and machines and without piece-rates. It aimed to finish by 1962.⁶⁴

Concurrently, the Snowy Authority and the federal government, in parallel with the move to the new contract approach, were seeking to establish a less expensive--for the contractors and Authority--Commonwealth industrial arbitration jurisdiction via the 1951 changes to the Conciliation and Arbitration Act.⁶⁵ This soon came up against the problematic reliance upon defence powers, as they sought to justify the Commonwealth's control of the work.⁶⁶ Nevertheless, Justice S. C. G. Wright was given the task of securing sole jurisdiction in February 1952, under the rubric of the need to replace the mish-mash of State and Federal awards.

In the meantime, Hudson issued instructions to the New South Wales Public Works Department, which was engaged in constructing the dam via day labour methods, to transfer their activities to that site.⁶⁷ In implicit support of such expansion, the President of the IBRD toured in March, and "denied that [the Bank] had expressed any disappointment at the lack of a positive long range programme for developing Australia's resources."⁶⁸ In the face of this developing economic co-ordination and emphasis, Victoria, however, would continue to challenge the validity of the uniform taxation legislation, which was underwriting the Commonwealth's increased powers.

Over the same period, the Authority had learnt about self promotion from the experience of the film, *Rubber Builds Dams*. Hudson wanted to combine these possibilities with a more 'official line', or government-sponsored, approach. Since March 1951 moves were underway to make a film along the

⁶⁴. "Adaminaby Dam: Progress Schedule", 23/1/53, Public Works file, SRNSW: AK474 WS1001/58, *Adaminaby Water Supply Scheme*. Dr. J. L. Savage Consulting Engineer.

⁶⁵. Spooner to the Attorney General, J. A. Spicer, 30/8/54 and Report by Solicitor General to Spicer, "Snowy Mountains Hydro-Electric Authority: Industrial Matters" (circa Sept. 1954), NAA: M1505, 1199, *Snowy Mountains Agreement - Water*.

⁶⁶. Bailey to Spicer, 19/10/51, NAA: A432, 1955/372, *Snowy Mountains Hydro Electric Power Act - Writ of Prohibition*.

⁶⁷. See Campbell, 17/1/52, NAA: A5638, AF233, op. cit.

⁶⁸. "World Bank Chief Leaves", *SMH*, 17/3/52, p. 3.

lines proposed by the Department of Interior's Film Division. Then, as Unger recalls, "as a protection against adverse publicity", it was decided that the public would be encouraged to tour the Scheme "to see how their money was being spent."⁶⁹ In August 1951, just as the 'horror' federal budget was being announced, a cinematographer was sought. Private film makers were also knocking on the door, offering to "complete emergency jobs in very short time."⁷⁰ Crucially for developing in-house capacities, a budget of eighty thousand pounds per year, enormous for the time, would be provided for publicity.⁷¹

Treasury remained wary of what the Scheme may cost it. The preliminary discussions during 1949 had included interest, depreciation and even sinking fund charges, which it sought responsibility for determining. Now, however, a draft agreement suggested that power would be charged at the average cost of production only.⁷² Treasury preferred the alternative that "the average cost of production shall be as determined by the Treasurer."⁷³ Indeed, Treasury believed that it was being kept on the outer,⁷⁴ despite Fadden being closely involved. It seems that Fadden and Menzies, along with the bureaucrats Brown (Secretary of PM's Department) and Bailey (Attorney General), were key strategists⁷⁵ in crafting a political deal with the Country Party to shore up the Coalition's commitment to the Scheme.

In fact, since August 1951, and concurrent with the Korean wool boom, John McEwan, the Minister for Commerce and Industry, had been developing a policy which favoured food production. This was advanced as a crucial, even strategic need.⁷⁶ In early February, McEwan then presented his approach to Cabinet, which agreed to an "Agricultural Expansion Policy" to meet defence requirements, to feed a growing population and to

⁶⁹. Unger, M, *Voices from the Snowy*, Sydney, University of New South Wales Press, 1989, p. 33.

⁷⁰. Kendrick, N. G., [Avondale Studios Pty Ltd] to Ramsey [SMHEA], 2/10/51, NAA: A2915, B242 Part 1, op. cit.

⁷¹. Unger, *op. cit.*, p. 155.

⁷². Reynolds, E. A., 23/10/51, NAA: A571, 1953/826 Part 1, *Snowy Mountains Hydro Electric Agreement - Draft Agreement with State Governments*.

⁷³. Garret to Hibberd, 30/10/51, NAA: *ibid*.

⁷⁴. Reynolds, E. A., 23/10/51, NAA: *ibid*.

⁷⁵. Reynolds, E. A., "...Proposed Agreement..." p. 9, 23/10/51, NAA: *ibid*.

⁷⁶. Lee, D., "The National Security Planning and Defence Preparations of the Menzies Government, 1950-53", *War and Society*, Vol. 10, No. 2, Oct. 1992, p. 119.

pay for dollar loans.⁷⁷ As with representations to the International Bank, labour policy and secondary industry policy were to be directed to assist. McEwan then announced a Commonwealth-wide programme of agricultural expansion. In fact, rural production was getting set to jump by 50% in the next ten years⁷⁸ (figures 7, 8, 9, 10).

This internally brokered agricultural priority would be fought out between successive reports of the NSRB committee's on electric power and then irrigation from December 1951 to February 1952. The electricity commissions reiterated their view that short term power production, not long term peak power plus irrigation water, was the preferred outcome.⁷⁹ Hudson set out his views to the subsequent irrigation review. In line with Menzies' concerns about imminent war, he emphasised the Scheme's strategic, underground construction. Then, and pointedly against State electricity commissions, he argued that the *combined* use of hydro and thermal power "would give greater overall economy."⁸⁰ He stressed the ability of the Scheme to contribute to food production, which would, in turn, support population and export income, thus assisting the dollar shortage. Confident in the expanded vision, he reiterated his belief that the cost of producing electricity, as estimated two years previously, would be half that of black coal stations.

Accompanying this competition between systems, the filmic promotion of the Scheme continued. A new film made by the Department of the Interior was completed in April 1952. It combined both the official, national development narrative style of an earlier National Film Board script with shades of the Dunlop Rubber film. It narrated a simple history of the conception of the Scheme, interspersed with phrases such as the "...lonely, inaccessible country...", where the "pioneering work...in the early stages conditions are rough...". Then, "in comes heavy earth moving equipment, materials and machinery" and a "growing body of workmen cut into the

⁷⁷. "Minutes of Meeting of Cabinet", 4-6/2/52, NAA: A4907, Volume 1, *Fifth Menzies Ministry Minutes of Meetings 11.5.1951-31.3.1952 Decisions - Nos.: 1-376*

⁷⁸. Lawrence, G., *Capitalism and the Countryside*, Sydney, Pluto, 1987, p. 189.

⁷⁹. Report of the Commonwealth-State Consultative Committee on Electric Power, 2/12/51, p. 44, NAA: AA1972, 69, *Confidential Report of the Commonwealth-State Consultative Committee on Electric Power - 2 December 1951*.

⁸⁰. [Report of the] Commonwealth-State Consultative Committee - Water Conservation and Supply, 18/2/52, Appendix B, SRNSW, 18/1632, 51/17692, *Commonwealth Priorities--State Consultative C'ttee...* Also see Report of the Commonwealth-State Consultative Committee on Electric Power.

Figures 7 to 10; Graphed comparison of horse numbers and tractor numbers 1938-50 in Holder, R. F., *Australian Production at the Cross Roads*, 1952, p. 49 and advertisements from *Australia Today*; "Looking Ahead" (26/10/54), "Mechanisation Means More" (27/10/52) and "To Every Management Seeking New Markets" (26/10/50).



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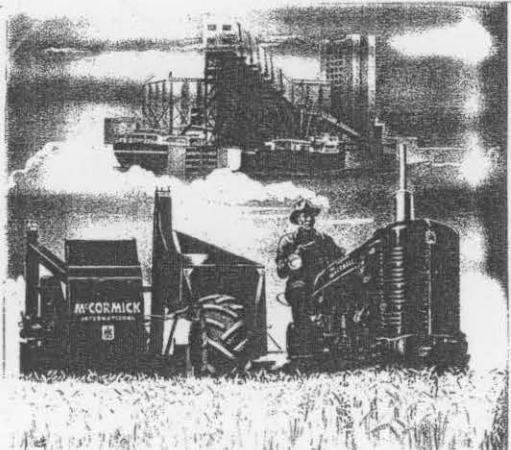
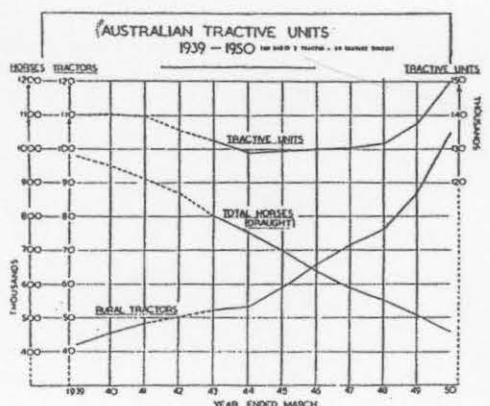
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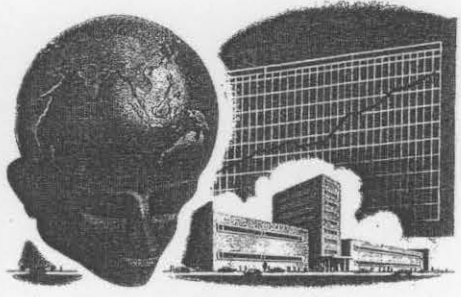
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heart of the alps..."⁸¹ Not as crudely assertive as the Dunlop film, but it used metaphors dramatically, to highlight the battle for occupation.

With its own economic goals, Victoria's opposition to the Scheme across the bureaucracy (with the exception of East), remained, as Premier McDonald suggested to Spooner, "deep rooted."⁸² In April, McDonald announced that, after the massive budget cuts, he believed that the right of his State to "exercise its constitutional powers" was being impaired, that it was being "robbed of its financial independence."⁸³ Under uniform taxation, Victoria had to transfer more tax out of the State. McDonald was thus wishing to move quickly to the High Court to challenge uniform taxation. Menzies (initially) welcomed the opportunity to contest the challenge, suggesting that such a change "would weaken the Commonwealth's power to control the country's economy."⁸⁴ But without rises in interest rates to follow inflation, public loans were beginning to fall short of the amounts called for (figure 11).

During April-May 1952, Treasury remained circumspect about a broad construction program⁸⁵, unconvinced by Hudson's assertions to the Security Board.⁸⁶ Further, several within federal Cabinet, especially the Minister for the Interior, Kent Hughes (who was also in charge of Commonwealth film production), were still wanting (according to Hudson) "to economise in every direction."⁸⁷ For Spooner, given the recent press coverage to which Hudson was now quite attuned, it would be preferable if an internal inquiry was conducted "rather than it be done at the request of some one else following, perhaps, a public discussion on the matter."⁸⁸ Nevertheless, to Menzies, Spooner continued to argue that even though political odium would accrue as a result of cutting State programs, "even more criticism than this will be directed by the public against the

⁸¹. "Snowy Mountains", commentary for film "Snowy Waters" attached to Martin-Jones, J., to Ramsey, 7/4/52, NAA: A2915, B242 Part 1, op. cit.

⁸². McDonald's comments as reported by Spooner to Hudson, 29/8/52, NAA: CP608, Bundle 2/1, op. cit.

⁸³. "Uniform Tax to be Challenged", *SMH*, 1/4/52.

⁸⁴. "Uniform Tax Challenge", *SMH*, 2/4/52.

⁸⁵. Wheeler to Raggatt, 17/5/52, NAA: A1058, F1506, *Economics of the Snowy Mountains hydro-electric Scheme*.

⁸⁶. Hudson to Spooner, 18/4/52, NAA: ibid

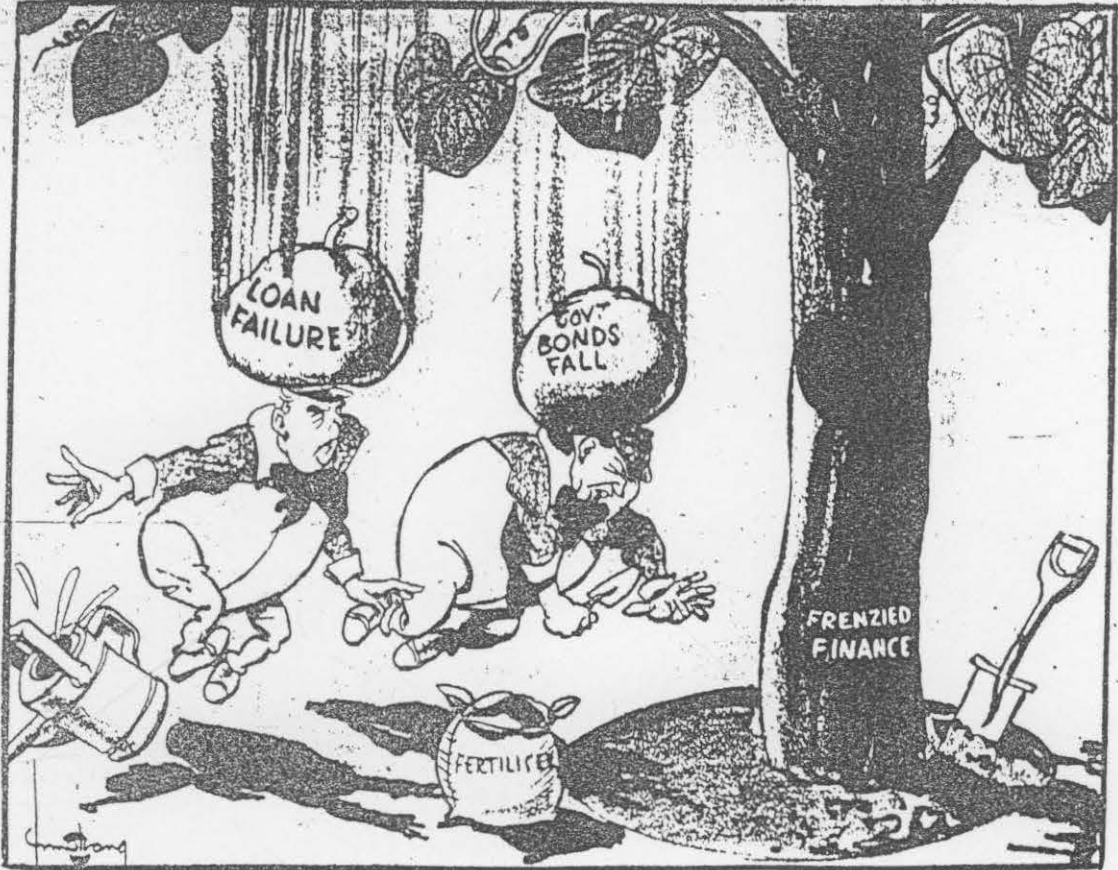
⁸⁷. Hudson to Jackson, R. G. A., 12/6/52, NAA: M3759, 61, *Correspondence and related papers regarding Sir William Hudson's overseas visit*.

⁸⁸. Spooner to Hudson, 22/4/52, NAA: A1058, F1506, op. cit.

Figure 11; Cartoon by Armstrong, "The Pumpkin Tree", *The Argus*, 23/4/52.

ARMSTRONG'S COMMENT:

"The Pumpkin Tree"



Commonwealth government unless the scheme is continued vigorously."⁸⁹ A short, in-house review of costs was now proposed,⁹⁰ to be done by Snowy staff. Treasury remained sceptical but, agreed, in an exasperated tone, that it "would probably be time saving."⁹¹

On the international scene, Australian support for the US against British capital was continued throughout 1952. As the Korean War backed wool boom ensued, a balance of payments crisis arose, and Menzies applied import restrictions "most heavily on British goods."⁹² Similarly, in May, *prior* to going to London, Menzies was in Washington and was angling--hopefully--for military aid.⁹³ Internally, problems were mounting. The States remained willing to outvote the Commonwealth on the Loans Council, pushing for more loan money. The corrective reaction--to restrict credit--enabled a further avenue of attack by the Packer press, on the "severe...controls choking enterprise" and on the "financial jiggerypook"⁹⁴ of centralised, Keynesian credit. This was readily extended to attack the Commonwealth's financial control of public works. Spooner publicly replied that such criticism was "rubbish", as such ploys were meant to obscure the unco-ordinated competition between the States for funds and "to hide their own inadequate planning."⁹⁵

The controls, which were being sought by Coombs, for example, would have prevented the government from artificially underwriting cheap interest rates in the first place. The credit squeeze was applied too late: inflation was running at 20% and rates on government loans a mere 4 and 1/2%. Then, by winter unemployment had rocketed to 4% and a swing was on against Menzies.⁹⁶ By June, even the *Sydney Morning Herald* was reporting that the World Bank was now critical of the lack of short term development focus. It "doubted the wisdom" of "driving to finish" the Scheme and suggested, instead, that smaller electricity projects would "provide

⁸⁹. Spooner to Menzies, 21/4/52, NAA: A571, 1956/1038 Part 6, *Snowy Mountains Scheme*.

⁹⁰. Wheeler to Raggatt, 17/5/52, NAA: A1058, F1506, *op. cit.*

⁹¹. Wheeler to Raggatt, 29/5/52, NAA: *ibid.*

⁹². Lee, *Search for Security*, *op. cit.*, p. 148.

⁹³. *Ibid*, pp. 150, 155.

⁹⁴. "Severe Govt. Controls Choking Enterprise", *Daily Telegraph*, 7/5/52, p. 1.

⁹⁵. "Onus on Canberra for Job Cuts 'Rubbish'", *The Sun*, 30/6/52.

⁹⁶. "Can Government Prestige be Restored in 1953?", *SMH*, 28/12/52, p. 5.

desperately needed electricity more quickly."⁹⁷ Support from the US, at least for extra aid, appeared to be denied. To protect the expanding vision, Hudson had learnt the Cold War rhetoric of the government and was arguing accordingly. Australia was alone in Asia and unless it did something to "produce for the starving millions" then "we cannot survive as a country."⁹⁸

Brown and Spooner continued to differ about whether it was best to push for an agreement at all. By June 1952, it had been 10 months since the draft had been forwarded to Victoria. It was eventually decided, following Spooner, to push for some action on Victoria's part.⁹⁹ Then, in July, given the mounting inflation and pressures for more money, and with his control slipping, Menzies reversed his earlier stance on uniform taxation, offering to consider returning taxation powers to the States.¹⁰⁰ Rather than the strengthening fiscal control and constraint via centralising credit, a return of taxing powers to the States, via rejoining expenditure raising and spending responsibilities, would restore fiscal probity.¹⁰¹

By July 1952, however, a second (relief) instalment of the IBRD dollar loan was announced. The President of the Bank denied that the Bank was urging a "go slow" on the Snowy Scheme.¹⁰² East and the State Rivers Commission continued to be an ally of the Scheme.¹⁰³ Yet, as the Victoria stood to receive only 100,000 acre feet of water from the Murray (three times more going to the New South Wales bank), McDonald thought that the power problems much outweighed such a relatively small amount of water. Victoria was still getting "a very raw deal."¹⁰⁴

In response to the internal criticism from Treasury (and Kent Hughes) the economic review had been prepared by Anderson (National Development) and Dann (Snowy Authority). Although costs had inflated from £225

⁹⁷. "Snowy Project Query by Bank", *SMH*, 19/6/52, NAA: A571, 1956/1038 Part 7, *Snowy Mountains Scheme*.

⁹⁸. "Men Battle Elements to Complete Big Hydro Project", *Goulburn Evening Post*, 11/6/52.

⁹⁹. Fadden, Acting PM, to McDonald, 2/7/52, NAA: CP608/1, Bundle 2/1, op. cit.

¹⁰⁰. "Uniform Tax Was A Wartime Measure", *SMH*, 8/7/52, p. 2.

¹⁰¹. See, for example, Sir John Latham's article "The C'wlth-State Finance Problem", *SMH*, 19/2/53, p. 2.

¹⁰². "50 Million Dollar Loan for Australia", *SMH*, 10/7/52, p. 3.

¹⁰³. Hudson to Spooner, 18/8/52, NAA: CP608, Bundle 2/1, op. cit.

¹⁰⁴. Spooner to Hudson, 29/8/52, NAA: *ibid*.

million to £433 million, they assured Spooner that the Scheme was still cheaper than coal.¹⁰⁵ Given the international pressures Spooner, could not, however, accept such untabulated, "bare statements."¹⁰⁶ Even though tabulated costs were then made available, Raggatt, as Secretary of the Department of National Development, counselled Spooner that a comparative review of the sort he may have been expecting was beyond their capacity.¹⁰⁷ The complex comparisons and economic teams required to analyse various scenarios of multipurpose megatech development were only just being assembled in other parts of the world. Raggatt sought to reassure Spooner that the Scheme would prove to be cheaper.¹⁰⁸ Brown was concluding that US capital was more required than ever.¹⁰⁹

Varying the program by at least delaying and hence dropping Blowering expenditure commitments from cost estimates,¹¹⁰ helped Spooner argue to Menzies that the Scheme was still cheaper.¹¹¹ He would, by October, appreciate the difficulties of making simple cost comparisons for a project that, he had now been convinced, would form a complimentary peak power role to 'base load' thermal plant.¹¹² Spooner therefore remained willing to support the estimate that Snowy power would be half the price of coal fired power. An adept practitioner of 'Canberra bashing', shifts in estimated expenditures were then used by the Cahill government to embarrass Menzies, as Blowering and other dam cutbacks were blamed on the Commonwealth.¹¹³

Concurrently, as the cutbacks were catching up with a SECV still committed to a large program, the Central Bank, under Coombs, noted that the cuts to the SECV's program were justified not because its investments were necessarily ill-conceived but "as a disciplinary measure." The Bank remained uncertain, however, whether the over-commitment had arisen as a result of a maverick construction program. The McDonald government,

¹⁰⁵. Dann and Anderson, "Interim Report...", 5/7/52, p. 3, NAA: A1058, F1506, op. cit.

¹⁰⁶. Spooner to Raggatt, 8/7/52, NAA: ibid.

¹⁰⁷. Raggatt to Spooner, 2/9/52, NAA: ibid.

¹⁰⁸. Raggatt to Spooner, 2/9/52, NAA: ibid.

¹⁰⁹. Lee, *Search for Security*, op. cit., p. 152.

¹¹⁰. Raggatt to Spooner, 26/9/52, NAA: A1058/1, F1506.

¹¹¹. Spooner to Menzies, 10/10/52, NAA: A462/16, 318/13, *Snowy Mountains Hydro Electric Scheme - Financial Requirements*.

¹¹². Spooner, "The Snowy Mountains Hydro Electric Authority", 23/10/52, NAA: A1690, 1963/1538, *Economics of Snowy Mountains Hydro Electric Scheme*.

¹¹³. "Work Halt On Big New South Wales Dam", *SMH*, 3/10/52, p. 4.

given the larger cut-backs it had to bear, appeared "keen to adopt just such a course" thence necessitating a bail-out. Either way, if it were the only way to stave-off severe financial embarrassment, the Central Bank offered the SECV short term loans. It was also an opportunity to play a role in setting overall government expenditures.¹¹⁴ To the chagrin of the Bank, however, Menzies favoured an internal, State-based review of the SECV's finances.¹¹⁵

Meanwhile, Kent-Hughes raised questions about the Scheme's costs, specifically, its public relations costs.¹¹⁶ The maker of the film for Dunlop Rubber, Litchfield Film Productions, had sought to tender for film making rights for Snowy Authority work and was objecting to the work being done by the government Department of Interior which had just released its film of the Scheme.¹¹⁷ It also objected, upon the basis of information supplied by Kent Hughes, to Metro-Goldwyn Mayer being given rights to produce a short film, especially as it had only recently arrived in Australia. Litchfield was also a film maker for Cinesound Newsreels and believed that the Authority would gain much greater coverage than with MGM although the Authority disputed this. For Hudson, if Litchfield had made a similar offer to that of MGM, it would have been "snapped up quickly."¹¹⁸

By September 1952, agreement had been reached with MGM on the content of two ten minute films. The first would be for exhibition in commercial cinemas and would, it was hoped, receive wide international distribution, as well as extensive local screenings. The second would be to accompany lectures and discussions "on the Scheme as a major national undertaking."¹¹⁹ This latter film would be shot by the Authority's Did Gadsby, as he followed the MGM crew around the construction sites, but would be edited by MGM. It would also provide the Authority with the independent or in-house skills it was after, a way around the demands of both the Department of the Interior and of the private companies.

¹¹⁴. Memorandum, 9/9/52, RBA S-a-2430, *State Electricity Commission of Victoria--Request for Financial Assistance*.

¹¹⁵. Memorandum, 21/10/52, RBA *ibid*.

¹¹⁶. Hudson to Spooner, 13/6/52, NAA: A2915, B242 Part 1, *op. cit*.

¹¹⁷. Litchfield, R. A., to Spooner, 16/5/52 and 25/6/52, NAA: *ibid*

¹¹⁸. Hudson to Spooner, 10/7/52, NAA: *ibid*

¹¹⁹. Gidley [MGM] to Hudson, 17/9/52, NAA: *ibid*.

In the MGM film, reflecting the Menzian emphasis upon national defence plus the Authority's own editorial input, the rough and virtuous "battleground" of the Scheme was again to the fore. Recalling earlier Cold War themes, the need to populate to defend the country, to thwart those wishing to "seize what they consider to be our under-developed and undeserved birthright" were imperatives that required the large-scale development of irrigation and power potentials. Yet the role of the "melting pot" of nationalities was also given greater play, possibly as a result of the Jubilee Prize winning success of the film about a migrating Ukrainian couple, *Mike and Stefani* made by the Department of the Interior, shown at the first Australian film festival held in January 1952.¹²⁰ As a further theme, the MGM script writer had hoped to be able to add something about "upsetting the Balance of Nature", plus, then, the "Plan to improve nature."¹²¹ Fundamentally, however, it is Hudson's burgeoning, multi-purpose system of national purpose that excites with its urgency at the end. The Scheme is:

no make-shift expedient to patch up a national lack of power. It is a long range plan, yielding results from 1954 onwards for the security of our nation.¹²²

To Spooner, in September 1952, Hudson suggested that Victoria would soon be in need of peak load plant for electricity supply and that any agreement would control its price. Hudson also pointed out that via regulation, both at the expanded Hume and in the Upper Snowy, more than 370,000 acre feet of water would be made available for the use by Victoria, not merely the 100,000 as claimed by the Premier.¹²³ Spooner then wrote to the Victorian Premier. Rather than allowing "differences of opinion" to arise at a stage "where substantial expenditure" had been incurred, Spooner favoured discussion within the proposed Advisory Council.¹²⁴

Deepening the stand-off, Victoria answered by formally issuing a writ in the High Court challenging the Commonwealth's uniform taxation

¹²⁰. "Australia's First Film Festival", *SMH*, 26/1/52, p. 2.

¹²¹. Boldini, Maria, summary film script for "The Snowy Mountains Scheme", attached to Gidley [MGM] to Hudson, 17/9/52, NAA: A2915, B242 Part 1, op. cit.

¹²². MGM, "The Snowy Mountains Scheme" (1952), [b&w, snd], NAA: A5688, 24, "Cine film 'The Snowy Mountains Scheme' (MGM)"

¹²³. Hudson to Spooner, 10/9/52, NAA: CP608, Bundle 2/1, op. cit.

¹²⁴. Spooner to McDonald, 11/9/52, PRO: VPRS 1163/P, box 936, file P52/4432, op. cit.

legislation and, by implication, in support its own financial autonomy.¹²⁵ Within two months, however, McDonald had lost the December election (fought on electoral redistribution issues) and was replaced by Labor's Cain, the first majority Labor government in Victoria's history, boosting Labor's hopes federally. Although it was against Labor policy, the High Court action was not withdrawn. Indeed, within a fortnight of Cain taking office, the SECV's annual report was calling for "£30 million a year 'for some years'" and pressing its claim to be the cheapest producer of electricity in Australia.¹²⁶ As a half Senate and New South Wales poll approached, further political pressure was applied by Cahill by blaming cuts to works programs on Menzies and by pursuing the uniform taxation issue (figure 12).

The development of Guthega on the Upper Snowy, which was proceeding apace was, arguably, well within the Commonwealth (Seat of Government Acceptance) powers. The contracts for the Upper Tumut, which the Commonwealth was working towards letting, were another thing. Cain believed that the upcoming conference should "consider the effect of the Agreement as a whole"¹²⁷, specifically its implications for Victoria's finances. The politically defensive Menzies was hinting that the recent meeting of Commonwealth Prime Ministers might offer new financial possibilities. Although staged to attempt a Sterling bloc renewal,¹²⁸ Menzies used the talks as a way of suggesting that State works programs could now be secured, although these appeared little more than the Commonwealth re-imposing "national priorities."¹²⁹ Spooner was in the US having further talks with the International Bank.¹³⁰ With an election in the offing in New South Wales for mid February, however, and loans for public works, inflation, banking and uniform taxation still at issue, negotiations on the Snowy would have to wait.

After the New South Wales election result, in which Cahill increased his

¹²⁵. "Challenge to Uniform Tax", *SMH*, 16/10/52.

¹²⁶. "We're millions short, warns SECV", *The Argus*, 23/12/52, p. 5.

¹²⁷. Cain to Menzies, 16/3/53, NAA: A462, 318/2, op. cit.

¹²⁸. "Plan To Develop Colonies", *SMH*, 29/9/52 and "World Trade Plan Drafted", *SMH*, 13/12/52, p. 1.

¹²⁹. "Menzies to Seek New Approach To Public Works", *SMH*, 13/12/52, p. 1.

¹³⁰. "Spooner In America", *SMH*, 8/1/53, p. 3.

Figure 12; Cartoon by Hersey, "Hot Pursuit", SMH, 14/1/53, p2.

HOT PURSUIT



BATE: "Throw it out, Artie, before they get any closer!"

majority, Menzies qualified his support for ending uniform taxation¹³¹ (figure 13). In March 1953, with contracts beckoning, a first meeting (finally) convened to review the draft agreement. Hibberd, from Treasury, advised Spooner not to open up costing assumptions for review, as this would enable the States to become spoilers.¹³² Spooner went in optimistically, hoping to apply the two pronged carrot and stick approach for a quick agreement.¹³³ He sought to openly invite the States to participate in an *Advisory Council* if they supported an agreement. Because it was now time to consider calling tenders for the Upper Tumut works, connected to Eucumbene Dam, specifications for which had now been completed, he urged that the "closest co-operation" was, now, required.¹³⁴

Victoria, which had only two representatives present (neither of whom were East), continued to object to the cuts they were suffering. Galbally, the new Minister for Electrical Undertakings, had "grave constitutional doubts" on the issues of the Commonwealth developing such resources as water and power and also about the proposed method of financing the Scheme. His battle, as with Kent Hughes, was with the Snowy Scheme:

We have some horizontal plant at Morwell at the present time, all we have to do is make it vertical and it works. We are not interested in Snowy at the present time until we get some of our thermal stations and our hydro scheme working.¹³⁵ (figure 14).

The Assistant General Manager of the SECV, Willis Connolly, later predicted that the weight of opinion within the SECV for many years would be that it had invested far too heavily in hydro plant. Such plant had (like the pre-Eucumbene Snowy), been designed with long race-lines and without large, inter-seasonal storages. Coal stock piles and older, base load plant, thence used for peak service, were preferred.¹³⁶ Given the reliance upon electricity revenue (especially the Murray diversion) for cost recovery,

¹³¹. "Menzies Explains Tax Plan", *SMH*, 27/2/53, p. 1.

¹³². Hibberd to Spooner, 23/3/53, NAA: A571, 1953/826 Part 2, *Snowy Mountains Hydro Electric Authority - Draft agreement with State governments*.

¹³³. Spooner to Menzies, 20/3/53, NAA: A462/16, 318/2, op. cit.

¹³⁴. "Conference of Commonwealth and State Ministers...", 23/3/53, p. 2-4, NAA: A571/149, 1953/826 Part 3, op. cit.

¹³⁵. *Ibid*, p. 65.

¹³⁶. Connolly, "Snowy Mountains Project", 8/4/53, Elcom file, SRNSW: 18/2285, 6796/1, *Snowy Mountains Hydro-Electric Scheme. Proposed Agreement*.

Figure 13; Cartoon by Eyre, "Dead or Alive?", SMH, 23/2/53, p. 2.

DEAD OR ALIVE?

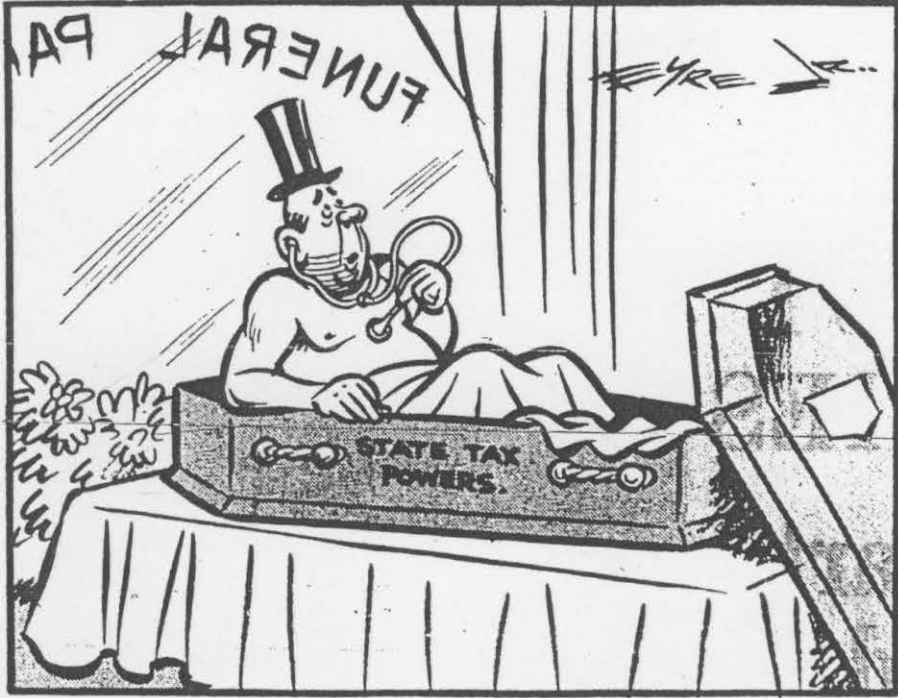
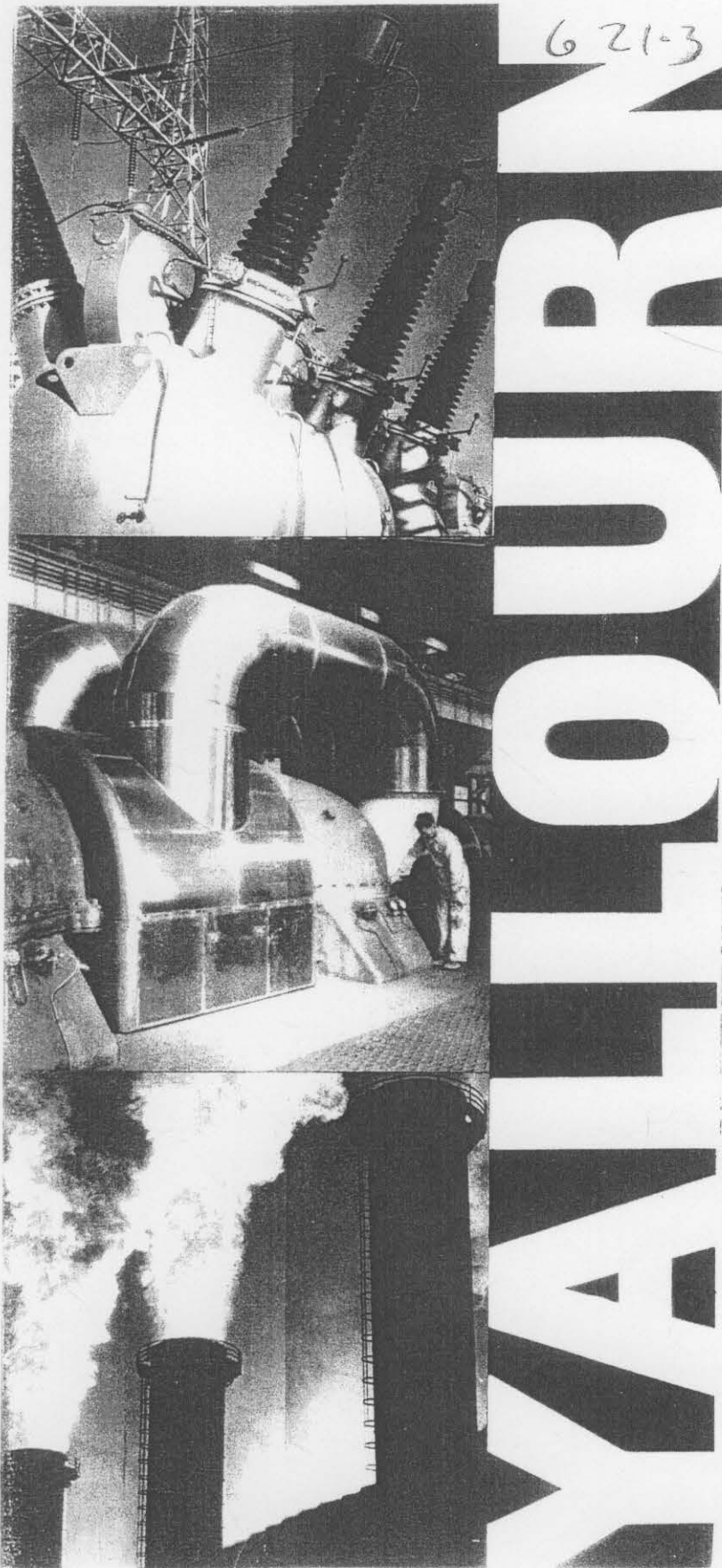


Figure 14; Pamphlet, SECV (n.d.), vertical series of three factory images joined via yellow text 'YALLOURN'.



and because the Tumut project was the first to be constructed, New South Wales was more sympathetic.

Rumblings, however, continued on the matter of industrial control. Renshaw for New South Wales required that the area over which the Authority would have construction control, and therefore industrial coverage, be restricted. Secondly, the States were pushing for a clause in the Agreement which stipulated that they be closely involved in planning the Scheme to ensure that the cost of power would be acceptable to them. Drawing a parallel between the negotiations between the United Nations and communist armies in Korea, this part of the Agreement would come to be characterised by bureaucrats as the P'anmunjom clause. They--the States--wanted some costs to be borne by the Commonwealth and the financing of the Snowy should not interfere with the States' own programs of development.¹³⁷

Continuing its objections, and armed with legal advice from Barwick, Victoria announced on the day of the next meeting of Ministers that, beyond the writ on uniform taxation, a High Court challenge on the Snowy proper would be mounted because the State was "pressed for funds for State electrical undertakings."¹³⁸ After its internal review of the SECV's financial plight, the Victorian government was also seeking to increase its call on short term loans from the Central Bank from £7 to £13 million.¹³⁹

Spoooner, seemingly, then softened his approach as he offered an invigorated Advisory Council upon which the States could outvote the Commonwealth (although, it remained advisory only). The Commonwealth agreed that the Snowy Scheme should be seen as being complimentary to the States' electricity grids and that the Advisory Council had the power to make recommendations about "the nature, order, sequence and rate of construction of the works of the Authority."¹⁴⁰ Crucially, the price of electricity to the States would be according to cost; the Authority "neither makes a profit nor a loss."¹⁴¹ The yardstick to be applied, to ensure that

¹³⁷. Spoooner to Menzies, 30/3/53, NAA: A462, 318/2, op. cit.

¹³⁸. "Challenge to Snowy Scheme", *Daily Mirror*, 27/4/53.

¹³⁹. Smithers to Coombs, 18/3/53, RBA S-a-2430, op. cit.

¹⁴⁰. Department of National Development, "Ministerial Conferences...", 8/1/54, p. 4, NAA: CP608, Bundle 2/2, *Snowy Mountains Hydro Electric Scheme - Agreement Papers*.

¹⁴¹. *Ibid*, p. 9.

costs for electricity from the Scheme did not get out of hand, was to be the costs of producing electricity from thermal, coal-fired stations. The P'anmunjom clause had been agreed. Given the special value of peak power, this would later cause significant problems.

Following Joint Coal Board precedents, the Commonwealth was hoping to trade underpinning legislation from the States for continued financial support. Yet the Council remained purely advisory and hence the States still believed that the emphasis was back to front--it should be the Commonwealth which acted as a (temporary) agent for the States in constructing the Scheme, not instituting a permanent Authority. The Commonwealth was also demanding the right to transmit power from the Scheme via its own lines. Fundamentally, Spooner was now seeking to force the pace and, although "to some extent...against the spirit of this Agreement", to gain approval for largely unexamined Upper Tumut contracts in order to begin construction at the end of winter.

Galbally remained opposed to such interim approval, to "any contract being let" until an agreement had been reached. But, given that Enticknap, for New South Wales, was quite plain that his State supported an Advisory Council, as currently drafted, clearly Victoria would be outvoted even if it formally sought to delay Tumut contracts. The SECV had, however, regained control of its apparently dire financial position but by misleading the Central Bank. After having provided relief loans, the Bank was now "disturbed" by the "lack of frankness" of the Commission about hitherto undisclosed sources of finance.¹⁴²

Especially given Enticknap's support, on the 5th of May, Spooner announced the calling of contracts for the Tumut stage of the Scheme. He emphasised that the contracts would be "a radical departure from the cost-plus system" with the vast bulk going to US contractors.¹⁴³ The apparently defence-related design of underground construction was also emphasised, as was the "paramount importance to the nation."¹⁴⁴ Concurrently, the States were becoming concerned about escalating interest rates. In fact,

¹⁴². Deputy Governor to Dryson, 9/6/53, RBA S-a-2430, op. cit.

¹⁴³. SMHEA, *Engineering Features of the Snowy Mountains Scheme*, Cooma, The Authority, 1993, p. 176.

¹⁴⁴. Spooner, "Statement by the Minister...", 5/5/53, NAA: A462, 318/18, *Snowy Mountains Hydro Electric Scheme - Finance for works programme in 1953/54*.

Hudson was conceding that they would increase the cost ratio of the more capital intensive hydro to thermal "from about 1/2 to 2/3."¹⁴⁵

Controversy then erupted in Melbourne via *The Age* about the cost increases for the Scheme. Keeping the pressure on, Eggleston, during May, took up Thorne's objections to the cost of hydro as peak power outlined in his Institution of Engineers paper of April. Eggleston claimed that it would cost £550 million to complete the Scheme¹⁴⁶ and called for a public inquiry into costs, recalling how Monash had impressed on him during the 1920s that hydro power should supply "only the basic load."¹⁴⁷ Defensively, Spooner reiterated that the Commonwealth was now proposing to use electricity from the Scheme for the Commonwealth's own defence factories in Melbourne, Bendigo, Mulwala, Ballarat, Villawood, St. Marys and Lithgow, as well as for an "atomic energy project."¹⁴⁸ This was to occur under the rubric of meeting the defence needs of the Commonwealth and under the new war-footing of the economy.¹⁴⁹

In a further blow against an Advisory Council acting as a productive clearing house for the competing plans, McMahon (acting for the ill Spooner) suggested that the best means to check the economics of the Scheme was to rely upon tender estimates.¹⁵⁰ This would again protect the Commonwealth from having to reveal its cost assumptions, especially as the Advisory Council was about to convene. Not surprisingly, the Advisory Council immediately began pushing for a "comprehensive statement"¹⁵¹ on the nature, cost, sequence and rate of progress of all works being undertaken by the Authority. In August, at the next Ministerial conference, Renshaw suggested, following Galbally, that an outside consultant be appointed to examine the question of the economics of

¹⁴⁵. Hudson to Spooner, 13/5/53, NAA: A1690, 1963/1538, op. cit.

¹⁴⁶. Spooner to the *SMH*, 9/6/53, copy in NAA: *ibid*.

¹⁴⁷. Eggleston, "Operating Costs of Snowy Mountains Scheme", *The Age*, 12/5/53.

¹⁴⁸. See Parts VIII and IX of Appendix A, [draft] Cabinet Submission by Department of National Development, 7/7/53, NAA: A571, 1953/826 Part 6, *Snowy Mountains Hydro Electric Authority - Draft Agreement with State governments*.

¹⁴⁹. Breen to Raggatt, 18/6/53, Knott to Raggatt, 1/7/53 and Hartnell to Breen, 3/8/53, Document 2163, NAA: A2618, Documents 2137 to 2164, *Notes, reports, inquiries, correspondence and Cabinet submissions re the setting up of the Snowy Mountains Scheme*

¹⁵⁰. "Council for Snowy Scheme is Chosen", *SMH*, 23/6/53.

¹⁵¹. "Minutes...July 1st, 1953", p. 2, NAA: A2915, A53 Part 1, *Proceedings of the Interim Snowy Mountains Advisory Council*.

sharing base and peak loading investments as it would "give us an independent view on the matter."¹⁵²

Meanwhile, the Department of the Interior's film had been showing in cinemas around the country since May 1952. For Hudson, the cost was high compared to that recently contracted for the films with MGM. He wanted to pay only half of what the Department of the Interior wanted, about the same amount as it was costing the Authority for the MGM 'short'. Hudson further complained that its release had been too late.¹⁵³ Primarily, by so fending off the Department of the Interior and countering Kent Hughes, he aimed to allow the Authority to develop its own in-house production team, including cinematographic capacities and editorial control. The Authority's own film, *Wealth from Water*, was made concurrently with the MGM film, although it took until late 1953 to have a sound track added.

It was a beginning for film production within the Authority which had learnt from both MGM and the Department of the Interior. Each year thereafter at least one film would be made, ensuring greater control of the manner in which the Scheme would be presented to a wide range of audiences. *Wealth from Water* avoided the machinic masculinity of *Rubber Builds Dams* but again took up the heroic, modernising themes of pioneering work in a harsh terrain. Like the commissioned MGM material, it blended such ideas with a more official, record of the progress achieved there. Crucially, too, the underlying economic rationale given for the Scheme was that of water for both irrigation and power, both commodities for defence. The film begins with Drysdale-like emphasis upon the dry inland, then shows how water for power plays a prominent role in the benefits of the Scheme. The scenes of city life and manufacturing balance the irrigation and farming scenes.

Masculine derring-do for national security nevertheless remains prominent in the film. Whilst the scenes of surveying and construction roll by, the sound track also announces that the men who work here are "rugged men to whom discomfort is merely incidental to the satisfaction of pushing forward a great work". Optimistically, as trigonometric stations are cleared by bulldozers on precipitate mountain sides, "major accidents are

¹⁵². "Conference...", 25/8/53, p. 76, NAA: A571, 1953/826, Part 5, op. cit.

¹⁵³. Hudson to McLaren, 22/12/52, in NAA: A2915, B242 Part 1, op. cit.

very rare."¹⁵⁴ Much time was devoted to the details of the work being done within an often isolated and snow-bound terrain. Sending supplies through a blizzard underscored the importance of remote out-workers. Audiences for the film included the employees of the Authority itself. It showed widely during the following year (1954) to audiences at agricultural shows and to schools and community groups.

Within the on-going negotiations, capital cost estimates were still increasing due to the enlargements and because of increasing labour and material costs. Hudson reported that it was the latter factor that was mainly responsible for price rises. He went on to argue that the proposal to increase Adaminaby to Eucumbene Dam was well justified. The Authority "will be able to *guarantee* 50% more kilowatt hours in any month of any year."¹⁵⁵ This would make the peak power (enhanced irrigation) Scheme more advantageous to the States. But Cabinet still remained keen to protect the principal financial role (and position) of the Commonwealth. That is, although Spooner reported that the cost of the Scheme would still be "no more than two thirds" of coal systems, a range of interest depreciation and even amortisation charges were to be retained. These costs, he believed, should not be specified in the agreement as this "might react, at some future time, to the detriment of the Commonwealth."¹⁵⁶

At the following Advisory Council meeting, New South Wales found that it was now under attack, given the proposal to increase Eucumbene Dam's capacity to three and a half million acre feet. Spooner, with the full support of the Victorians, wrote to the Minister of Works for New South Wales, Renshaw, emphasising the advantages of the new high-speed methods; "a change from day labour methods would be desirable in the interests of efficiency and economy."¹⁵⁷ New South Wales countered by calling for greater design control given the money it was to pay.¹⁵⁸ In mid October, recalling Chifley's concerns, Renshaw added that local sovereignty was at issue too:

¹⁵⁴. SMHEA, "Wealth from Water" (1953, 20 mins, snd, col.), Screen Sound Australia, Cover Title No. 6918.

¹⁵⁵. Hudson, "Estimates - Snowy Mountains Scheme" 14/9/53, p. 7-8 (emphasis in original), NAA: A987, E824 Part 1, *Snowy Mountains Hydro-Electric Authority - Cabinet Committee on Snowy Scheme (Agreement)*.

¹⁵⁶. Cabinet Committee, Minutes of Meeting, 9/9/53, p.3, NAA: *ibid*.

¹⁵⁷. Spooner to Renshaw, 17/9/53, NAA: CP608, Bundle 2/2, *op. cit*.

¹⁵⁸. "Snowy Plan Rift", *SMH*, 26/9/53.

The profits made...go outside Australia, plant equipment and materials are usually brought into Australia often to the detriment of Australian industry, many Australian firms are excluded from tendering and the heavy contractual commitments may I suggest become embarrassing from a budgetary point of view where very large funds have to be provided.¹⁵⁹

Similarly, Renshaw was not at all keen to support the proclamation of a *federal* industrial award for those on site. Industrially, Catholic Action, the anti-communist 'movement' within the ALP was challenging the AWU. In the industrially volatile atmosphere of spring 1953, when compulsory unionism in New South Wales was being pushed by Cahill to bolster Grouper influence,¹⁶⁰ the retention of a state-based award for the AWU was proving crucial in New South Wales. That is, with the routing of Federated Ironworkers and Transport Workers union officials under anti-ballot rigging challenges and under threat of having its own autocratic practices challenged by the Groupers,¹⁶¹ the consequent rise of the Groupers "was an affront to traditional AWU aspirations of holding the balance of power in the ALP."¹⁶²

This challenge to the power base of the AWU in the New South Wales ALP played out on the Snowy Scheme. The AWU's state coverage of the Snowy Scheme's burgeoning--3000 or more--workforce was under challenge as the Commonwealth court suspended all quarterly wage rises. The Snowy Authority's Counsel (and Grouper sympathiser), John Kerr, was "most anxious"¹⁶³ to prevent wage adjustments, as could be allowed by Justice Taylor, reputed to be an 'AWU judge' on the State bench (see next chapter). Against the prospect of having to conform to a Commonwealth jurisdiction, away from Taylor, the AWU was soon suggesting that, as the works area had

¹⁵⁹. Renshaw to Spooner, 16/10/53, NAA: CP608, Bundle 2/2, op. cit.

¹⁶⁰. Murray, R., *The Split*, Melbourne, Cheshire, 1970, p. 124.

¹⁶¹. Hearn, M. and Knowles, H., *One Big Union*, Cambridge, Cambridge University Press, 1996, p. 218.

¹⁶². Markey, R., *In Case Of Oppression: The Life and Times of the Labor Council of New South Wales*, Sydney, Pluto Press, 1994, p. 377.

¹⁶³. Kerr and Counsel, "Memorandum..." circa 2/10/53, NAA: A423, 1953/1023, *Australian Workers Union - Application for Snowy Mountains Hydro-electric Authority Award*.

not been proclaimed, the Court had no legal jurisdiction.¹⁶⁴ If it claimed any, the AWU could challenge the validity of the Authority's Act in the High Court.

For its part, as well as seeking to press on with "peak steam ideas,"¹⁶⁵ the SECV maintained that increasing interest rates were making the comparative economics of the Scheme much less secure than Commonwealth costings.¹⁶⁶ Connolly had been making some in-house estimates plumping for £630 million¹⁶⁷ adjusted downwards for his Minister to £600 million. He therefore argued that money should be diverted "to bring the Kiewa and Morwell projects to a reasonable production stage."¹⁶⁸ Connolly was left wondering whether the Scheme would have to be subsidised, or, like in the US, the Federal government would "apply a specially low interest rate."¹⁶⁹

This was taken up by New South Wales' interests who called for a reduction in interest charges from 4 and 1/2 to 2 and 1/2 per cent.¹⁷⁰ Concurrently, the New South Wales Cabinet had decided to reiterate its longstanding priority of water for irrigation from the Scheme.¹⁷¹ Yet, as predicted by Brown, New South Wales had now got most of what it wanted from the Scheme and could now use it as a 'political football', threatening to walk away from the Murray component. Compounding matters, Coombs, the day before the next conference, admitted that efforts to control the lending policies of trading banks, and inflation, had failed.¹⁷²

At the next meeting of Ministers in late October 1953, Victoria remained generally opposed. New South Wales offered further opposition, suggesting

¹⁶⁴. Clark (SMHEA) "Brief...Sequence of Events", circa 11/12/53, NAA: A423, 1953/1023, *ibid*.

¹⁶⁵. SECV, "Summary" [from] "Attachment to memo. 8/10/53 from Investigation Engr. to Civ/Engr.", p. 4, PRO: VPRS 8892/P1 647, 1955/5044, *Interim Snowy Mountains Advisory Council*

¹⁶⁶. "Minutes...13th October, 1953", p. 4, NAA: A2915, A53 Part 1, *op. cit*.

¹⁶⁷. See Connolly's typed notes "Snowy Mountains Project; Rough Notes", 12/10/53, p. 7, PRO: VPRS 8892/P1 646, 1954/4492, *Interim Snowy Mountains Advisory Council*.

¹⁶⁸. SECV [Connolly], "Snowy...Notes for Meeting ...29/10/53", 28/10/53, p. 2, PRO: VPRS 8892/P1 646, 1954/4492, *ibid*.

¹⁶⁹. *Ibid*.

¹⁷⁰. "Snowy Costs Inquiry", *SMH*, 23/10/53.

¹⁷¹. NSW Premier's Department, "Annexure...1/8/57 by the Ministers for Local Government and for Conservation", p. 5, SRNSW: 13/10721, 64/1142/B, *Snowy Mountains Hydro Electric Authority - General*

¹⁷². "Australia 'Led into Economic Errors'", *SMH*, 28/10/53, p. 2.

that the Commonwealth was being insincere as clauses to the agreement were being modified after discussions.¹⁷³ The concerns of the New South Cabinet were also put. Although all concerned knew that power revenue would pay for the Scheme, electric power was characterised as a "secondary consideration." By stressing the need for food and as feared by Brown, it was turning back the federal Coalition's strategic priority for food production on itself. The lack of openness on the part of Treasury as to its own costing assumptions and the interest rate to be applied then came to the fore. Indeed, with the States talking about (Connolly's) mooted £600 million cost, a united front was intensifying.

With a federal election only just seven months away and the Commonwealth risking financial thence political embarrassment and loss if the Tumut contracts were delayed, Spooner sensed that the two Labor governments were primarily manoeuvring to embarrass the Commonwealth. If further political mileage was sought, Spooner challenged especially New South Wales to make cost an issue, even if the Scheme "may be doomed as a result." He suggested that, in order to avoid controversy, all wait for tender quotes. He continued to demand that the Snowy Authority be allowed industrial control over the Cooma area, purportedly for the erection of a vaguely defined (Commonwealth controlled) uranium plant. Renshaw responded that there was "a war in Europe over the Danzig corridor." That this small territory stayed under State awards was crucial for the AWU's attempts to avoid being sidelined by the Groupers in New South Wales.

With Victoria still vehemently opposed, and now in league with New South Wales, Spooner then changed tack. He agreed that the States should have the right to examine each stage of the project *and* be able to pass judgement on its acceptability. Although it may be difficult for inter-dependent stages to be so approved especially given the stand off in the High Court, "let's try to do it." Given such rights of review the States, however, would now have to accept to pay what the Scheme was to charge--without interest rate and other concessions. This 'proposals principle', or, 'October compromise' as it was dubbed--again satirising Cold War federalism--would also suit the

¹⁷³. Commonwealth of Australia; "Conference...29th October, 1953", p. 5, NAA: A571, 1953/826 Part 10, op. cit.

Commonwealth. Much rewriting of agreement clauses would have to be done and further delays could be expected.

The *Daily Telegraph* reported the next day that the conference had agreed to the terms put by New South Wales. There was now to be, as the headline put it, "State Control Of 'Snowy'". The "Commonwealth Government will not construct any new section without first getting the consent of the two State Governments." There were to be "no white elephants"--this continued the line of attack against the 'wasteful central government'. And in line with the primary objective of the dominant water bureaucracy, the design was to be re-orientated; "water 'before power'."¹⁷⁴

Unsurprisingly perhaps, given the Commonwealth's overall strategy of delay, albeit with signs of concession, this compromise soon began to unravel. Draft agreements supplied by the Commonwealth did not match expectations,¹⁷⁵ Tumut works appeared to be going ahead regardless¹⁷⁶ and, crucially, the Commonwealth Treasury was still not supplying financial criteria.¹⁷⁷ Consequently, there arose three quick-fire notices, one from each electricity authority, that overseas experts would be called to examine the economics of the Scheme. Without any movement from Treasury, and thus any real chance of making accurate financial comparisons between proposals, the Labor States were now preparing to force an independent inquiry.

Spoooner began to re-assert to the Cabinet sub-committee a role for negotiated rather than forced settlement. He advocated on-going agreement negotiations in parallel with a staged approach to economic justification and construction rather than demanding a quick settlement. He acknowledged that "proceedings may be held up for political reasons."¹⁷⁸ Hibberd reiterated his concerns. Given the supposed October compromise, there would be "a series of unending haggings with the

¹⁷⁴. "State Control of Snowy", *Daily Telegraph*, 30/10/53.

¹⁷⁵. "Negotiations...", July 1954, [unattributed], July 1954, p. 3. Document 23 in NAA: A2618, Documents 3120 to 3127, *General Information on the Snowy Area & the Development & implementation of the Snowy Mountains Agreement*.

¹⁷⁶. Gilfillan, W. R., "Commonwealth-States Negotiations...", p. 26, Document 3421 in NAA: A2618, Documents 3416 to 3422, *Snowy Mountains Authority Historical Material Press Cuttings 1950-1967 and departmental papers*.

¹⁷⁷. "Minutes...16th November, 1953", p. 5, NAA: A2915, A53 Part 1, op. cit.

¹⁷⁸. Spoooner Cabinet Submission No. Gen. 17/5, 25/11/53, p. 9 and notes by Spoooner, "Last Draft Agreement", 26/11/53, NAA: A571, 1953/826 Part 13, op. cit.

States. [The] Scheme will always be a political tool of [the] States."¹⁷⁹ New South Wales, in particular, was prone to make trouble given that, once the Upper Tumut is underway, "the water interests in New South Wales...will have got most of what they want."

In response, Spooner noted that it was already the case that "we are so deep in these works there can be no turning back."¹⁸⁰ Less assuredly, the idea that the Scheme might be economically unjustified just "can't be so." Against the strategic advice of bureaucrats and engineers, however, he again stressed his political sensibilities. Financial and technical disagreements would, of course, arise, he recognised, but an "exchange of views" would eventually "benefit the Scheme as a whole." Hibberd remained concerned that all projects "stand on their own feet economically as a producer of electricity."¹⁸¹

In early December Spooner began to accede to pressure to call a review but Treasury remained adamant about keeping the costing criteria to itself until the States had signed. The preferred strategy of Treasury was that they were "not going to answer these questions in theory"¹⁸²--not without first seeing capital estimates. As such, Hudson's hopes that either the Authority or Advisory Council would undertake a review were also frustrated as he could gain no financial data from Treasury for this purpose.¹⁸³ Treasury was aware that the SECV, as it pleaded for co-operative support for its stalling projects, had shrewdly gained extra money from the Central Bank. As the States maintained that Treasury retained considerable latitude in deciding the level of their financial commitments, bickering about the provision of reliable plant costs then arose amongst Hudson, Conde, Lewis and the SECV. Without these the States could not agree to accept or reject a proposal yet, by agreeing to such a revamped approach, they had foregone the right to cost guarantees!

The next meeting could at least agree to attack the Minister for Works for New South Wales, Renshaw, about his determination to push on with day labour methods for constructing the Eucumbene dam. It suggested that he

¹⁷⁹. Note by Hibberd to Fadden, 26/11/53, NAA: *ibid.*

¹⁸⁰. Spooner, "Last Draft Agreement", 26/11/53, NAA: *ibid.*

¹⁸¹. Hibberd to Fadden, 30/11/53, NAA: A571, 1953/826 Part 12, *op. cit.*

¹⁸². Annotation by Hibberd, 14/12/53, on Raggatt to Hibberd, 11/12/53, NAA: A571, 1954/123 Part 1, *Snowy Mountains Hydro Electric Authority - Capital Charges.*

¹⁸³. Hudson to Raggatt, 4/12/53, NAA: A2915, A53 Part 1, *op. cit.*

visit the State Rivers project at 'Big Eildon' and to "take advantage of the experience gained...on the relative merits of contract work and day labour."¹⁸⁴ Such pressure would continue throughout the political tumult of 1954.¹⁸⁵

The States were also moving to take advantage of the Sterling bloc's formal wish to help finance Commonwealth works. Given Britain's burgeoning defence commitments to NATO, however, which were being forced on them by the US, the amount of money available was limited. Nevertheless, throughout January 1954, State Premiers met with the British Chancellor of the Exchequer, Butler, seeking to bolster Loans Council resources. Butler encouraged the implicit support being given to this States rights approach to control works expenditures, agreeing that "the priorities for works was the responsibility of the States."¹⁸⁶

This renewed association could also provide private banking with a rationale to exist independently of the supposedly inflexible stranglehold of a Central Bank slowly evolving under Coombs. Similarly, the 'independent' State-banking associations of the SECV, as it was still straining to finance its delayed investments, could provide such a rationale. *In toto*, however, given the combative attitude between the governments, little co-ordination and agreement had been reached on the central matter of the Snowy Scheme proper as inflation and battles over monetary and taxation controls, as well as industrial court control, were being fought out across the Scheme. As Raggatt himself conceded in early 1954, "it is difficult to measure the progress towards an agreement which has been made at these conferences."¹⁸⁷

In parallel to this stand-off, the Authority would soon complete further films. *Harvesting the Snows*, an updated version of *Wealth From Water*, was possibly one of the best films made by the Authority. It retained a record of progress slant, using graphic, on-site shots of the work being conducted, but was better produced. To the images of impressive machines and the formidable scale of the works, it added scenes depicting the high-voltage

¹⁸⁴. "Minutes...", 8/1/54, p. 2, NAA: A987/1, E909 Part 1, *Snowy Mountains Advisory Council Minutes*.

¹⁸⁵. Spooner to Renshaw, 4/5/54, NAA: CP608, Bundle 2/2, op. cit.

¹⁸⁶. "States Plan For Loan On London Market", *SMH*, 19/1/54, p. 4.

¹⁸⁷. Department of National Development, "Ministerial Conferences...", 8/1/54 (emphasis added). NAA: CP608, Bundle 2/2, op. cit.

power-line riggers, grappling with cables high above the ground. The slowly rising Eucumbene Dam site with its huge earthen wall, its engineering complexity as well as constructing machinery, were also featured. It applied roaring engine sounds and rising, fanfare music scores evoking a sense of the technological sublime.¹⁸⁸ Overall, the Authority chose to encapsulate the Scheme under the twin goals of irrigation and power and with the now standard national security undertone. The harvest was to be for the children of the workers of the Scheme who "will inherit Australia secure and free from want."¹⁸⁹

The Authority then made a film for the Department of Immigration, *Together we Build*, featuring the many nationalities combining to construct the Scheme. Celebrating a multicultural or, at least, mixed workplace, the migrants are highly valued for the complex skills they have brought from overseas. Upon their historic embarkation they are whisked-off to the Alps. Workmen were soon practicing their carpentry skills, with others demonstrating cartographic, instrument making and other prized skills. After dedicating themselves to hard work for their new home, they were then welcomed into local communities and are depicted as participating within fund raising and civic activities. As an English migrant teaches English, all come to newly dedicate themselves to nation building. With many European nationalities featured, along with overseas technology, the migrants thence become emblematic of the success of a nation at Cold War. Hard work ensures success for the migrant and nation. Then, during the local 'naturalisation' ceremony, a highly skilled Germanic migrant receives his first cup of tea as an Australian citizen. A rite of passage is presented to stiffen the resolve of both locals and migrant workers. Labouring, skill, community harmony and renewal are synthesised into a strengthened nationality. As orchestral music swells up the narration affirms that "together we build so that from the snow caps of Australia's roof will flow power and life for the future progress of Australia."¹⁹⁰

¹⁸⁸. Nye, David. E., *American Technological Sublime*, Cambridge, Mass., MIT Press, 1994, p. xvii.

¹⁸⁹. SMHEA, "Harvesting the Snows" (1954, 20 mins, snd, col.), Screen Sound Australia, Cover Tile No. 6917.

¹⁹⁰. SMHEA, "Together We Build" (1954, snd, col.) NAA: A5688, 20, *Cine Film "Together We Build"*

This film along with *Conservation on the Snowy* and *All things Flow*, also presented an altered approach. As did *Where the Hills are Twice as Steep*, a twenty minute color film, commissioned in 1956 to 'document' the progress of the works since the start of the year. Moderating whilst refiguring allusions to Cold War battle, the in-house assimilationist theme and narrative approach was deepened in *Where the Hills are Twice as Steep*, the title being a line from the Banjo Paterson poem, 'The Man From Snowy River'.

Workers are again depicted as being hard working and even daring, just like the rider from the poem. They break all international tunnelling records, quickly joining muck trucks and moving rapidly--too rapidly--to the dust laden rock face to resume drilling. This time, however, the film sought to establish an association with national icons. The film took up the daring and hardworking ethos of the mountain stockmen and used it to similarly present the workers on the Scheme. It extended the ideas of *Together We Build* and *Wealth From Water*, seeking to subtly encourage farmers to regard the workers and the Scheme as continuing, not threatening, tradition. Advertisements for heavy machinery would make similar associations (figures 15 & 16).

In mid 1957, *Conquest of the Rivers*, a 26 minute color film, was released.¹⁹¹ It furthered the technique of reconciling tradition to emergent power by re-presenting icons of national mythology. As with other films, it was produced and photographed by Harry Malcolm and supervised by Did Gadsby. Margaret Hudson, the daughter of the Commissioner, also took part in the writing of scripts, as did Ralph Peterson.

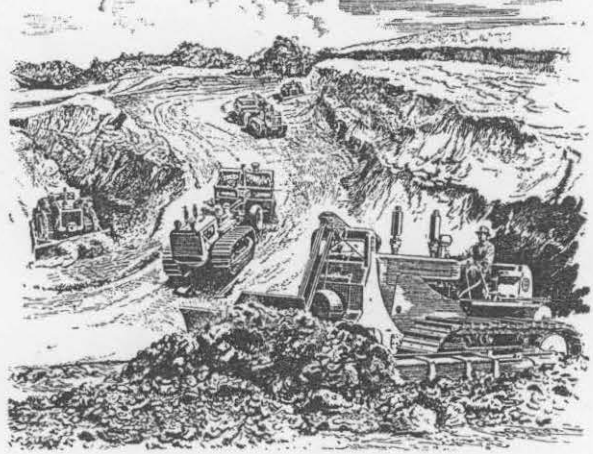
Conquest of the Rivers, took as its story a farming family that had been displaced by drought.¹⁹² (figures 17 to 21) Amongst scenes of dry, 'Drysdale-like' Western Division stock runs, there arises whirly whirly's of wind and dust, with ponderous, tragic music. The fleeing water-bore drilling contractor is then depicted lamenting dried out and dust filled water tanks, under broken windmills. "Here, in this thirsty wilderness, there tried and failed a man." The family then escapes from the drought

¹⁹¹. SMHEA, "Conquest of the Rivers", (1957, snd, col.), NAA: A5688, 487, *Cine Film "Conquest of the Rivers"*

¹⁹². Clark to The Librarian, The Commonwealth National Library, 19/6/57, NAA: A2915, B242 Part 1, op. cit.

Figures 15 & 16; Advertisements; International Harvester, *The Riverlander*, March 1952 (associating speed and security); Caterpillar, 'Man from Snowy River', *Pix*, 22/11/58, p. 28 (reconciling new machinery via traditions of horsemanship)

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67



"The Man from Snowy River"

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Figures 17 to 21; A sequence of images from the Snowy Authority film, produced by Harry Malcolm, *Conquest of the Rivers* (1957, snd., col.).

Images reproduced from Screen Sound (Canberra) Cover Title Number 6910.



17



18



19



20



21

stricken interior as the father comes to work for the Snowy Authority, noting that here "was water which could bring life to that parched and thirsty country I was leaving."

The film increased the tempo or drama of the sheer scale of construction work depicted. As the now ex-farmer is inducted via a tour of the Scheme, he witnessed, for example, startling scenes of an explosive-filled hillside being detonated to provide earth fill for Eucumbene dam. As the warning whistle echoes throughout the valley, a wombat takes cover. Then, as white cockatoos scatter into a stark blue sky, the charge brings down a whole hillside. In an early version, moderated for the final cut, the scanty gum trees all collapse quite alarmingly, like hapless ten pins in violent unison, as the earth slips away beneath. With earth moving machinery then able to move in to quickly transport the fill, a new poem is then sung. Challenging old values, yet with a theme of continuance, there is now a:

new kind of faith which moved mountains...where bullock teams once
crawled with caution and drovers rode behind their weary herds...
suddenly a thousand horses roared a challenge to the hills, now bloomed
by diesel fumes.

The water drilling contractor could, therefore, find a similar but renewed role. As he began work as a 'diamond' driller of rock core samples, moving confidently about the road-less terrain on horseback, he combined his singular horsemanship and drilling skills with the 'thousand horses' of the Scheme.

As well as re-presenting Drysdale-like metaphors, the film reconfigures the 'Man from Snowy River' ethos, extending the use of the 'Man from Snowy River' theme first used the year before in *Where the Hills are Twice as Steep*. The purpose of the Scheme and its massive organisational ethics are rejoined to those of the farmers of the interior who are asked to take up the challenge. As Hudson commented on the photographic exhibitions that were touring country and city agricultural shows at the time, "the Murray and Murrumbidgee Valley people are our best supporters"¹⁹³ (figure 22). Seeking a stronger bond with the farming communities, the film would be

¹⁹³. Hudson, SMHEA Minute, 16/5/56, NAA: A5628, 1962/637, *Authority's Public Relations Exhibitions - Policy*.

Figure 22; Photograph of the Snowy Authority's touring 'mobile display unit' see G. V. Lawrence, "The Snowy Comes West", *The Riverlander*, Jan. 1957, p. 19.

The Snowy Comes West

By G. V. Lawrence

The people of the Murray-Murrumbidgee had a splendid opportunity to study the project of the Snowy Mountains Hydro-Electric Authority last year when, in direct response to a suggestion from the M.V.D.L., a mobile exhibition was sent out to eight agricultural shows.

The Authority has always been notable both for the energy and skill with which it carries out its mighty task and for the trouble it takes to tell and show the paying public all about it. The Commissioner, Sir William Hudson, has a special interest in the valleys of the West where the Snowy water will begin to flow in 1959. The mobile exhibition was shown at the agricultural shows at Corowa, Leeton, Wagga Wagga, Renegatta, Kerang, Shepparton, Mildura and finally Albury and was displayed in a large marquee built especially for the purpose. Around the walls was a



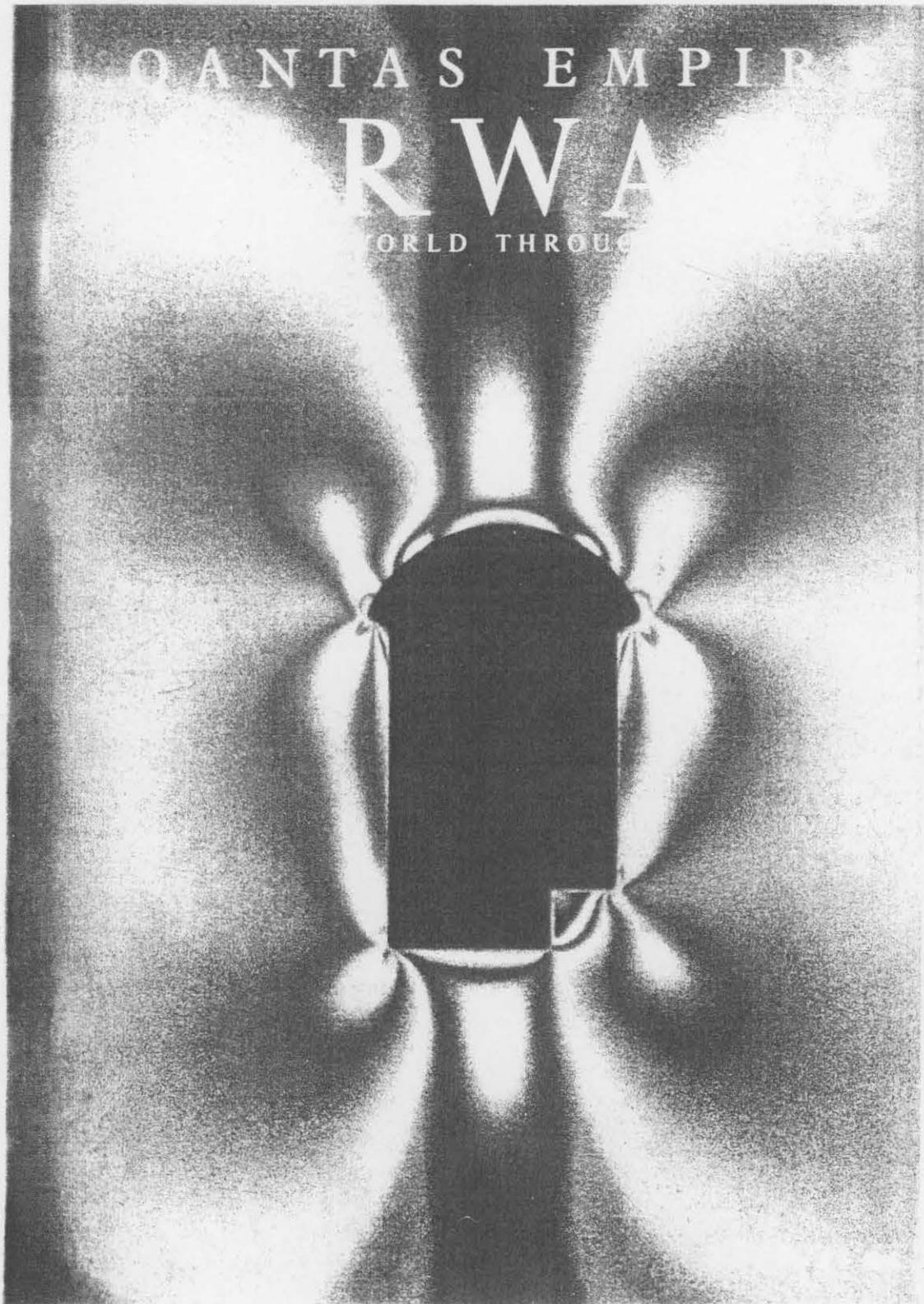
toured extensively by the Authority within the regions. By so remaking the Drysdale, water for the thirsty land style, *Conquest of the Rivers* won an Australian Film Institute award (silver medallion) for documentary in 1958.

Again, reassuringly, migrant workers are seen as contributing to and assimilating into this modernising, 'worthy yeoman' ethos. Photo-elastic stress models as abstract icons, were also applied to celebrate the underground, defensive Scheme, highlighting the award winning investigations of engineering science in predicting rock behaviour (figure 23). But, overall, farmer friendly public relations were playing an increasingly crucial role. They were arising in place of institutional innovation or inter-state processes of design review through an effective Advisory Council or federal electricity body.

What can we conclude from the manner of political negotiations and the increasingly sophisticated publicity by the Authority, which has been explored in this chapter? An implicitly, bipartisan, 'full utilisation', develop and populate approach was taken up by Menzies. Keynesian co-ordination continued but the enclosed, technocratic aspects of federalism under Chifley were giving way to another directive form of federalism, itself strained by its own strategic closures. Menzies had hoped that his deal for US dollar loans in return for US-led expertise, contractors and equipment would secure the internal political terrain as the more efficient (larger and high speed) regimes would lessen inflationary forces, increase productivity and legitimise his government. Yet the need to co-ordinate federally controlled investments, primarily into large, US sponsored megatech, led to furtive tactics and to short term affects which were having contradictory tendencies. Cold War federalist tactics stressing co-ordination for security along with US methods and attacks on unions--something akin to the 'Truman Doctrine'--began to take effect. Competing instrumental planning 'philosophies' of the emerging south east Australian electricity grid clashed as the Scheme was further enlarged. The shift from Adaminaby to Eucumbene Dam to attempt to improve its economics and advantage agriculture created further inflationary, technological and cultural strains.

Fundamentally, bringing global-political and thence internal coalition forces into alignment meant that the existing electricity systems were to be co-ordinated with the Snowy Scheme (not vice versa). It was firstly the

Figure 23; Photo-Elastic Stress image of underground power station, from cover, *Qantas Empire Airways*, Vol. 29, No. 2, February 1963.



Snowy's irrigation and then electricity profile, which had to be set. The Tumut development was to proceed ahead of the Murray development even as electricity production was to finance the Scheme. Following USBR advice (instead of local engineering compromises), the Scheme was (again) enlarged for a long-term irrigation and peak power role, hoping for expanded--more viable--complementarities. Food production became a national strategic priority. Energy, although a strategic plus, tended to be displaced by agriculture in the Scheme's priorities if not politics. This, as well as the greater scale, also enabled the employment of USBR staff and US contractors.

Concurrently, along with continuing bureaucratic scepticism towards federal fora, a Cold War co-ordination of works program was instituted. Under the rubric of the need to meet defence needs first, to prepare the nation for "war in three years", a *fait accompli* strategy was persisted with. Politically, Menzies was then caught between, on the one hand, the necessity and opportunity to intervene and, on the other, the claims of excessive regulation from a range of sources, especially conservative media, political, banking and business interests.

Beyond any strict economic rationale, the sudden change of plans required more games of bluff and counter bluff. Tripling the size of Adaminaby to produce guaranteed peak power and to enhance irrigation possibilities required careful negotiations with Treasury and with some--but not all--State commissions. In particular, the mooted but constitutionally insecure and politically unsupported Advisory Council was delayed until the Commonwealth had secured implicit support from New South Wales and until contracts crucial for New South Wales were in the offing. Victoria, the SECV in particular, began to rail against the changes being imposed on its investments into lignite for peak power. Their still experimental hopes for achieving energy independence, as well as securing institutional autonomy for the SECV, were curtailed by a sharp cut to both Kiewa and Morwell. On the other hand, with the apparent tacit support of McDonald thence Menzies, the SECV appears to have bluffed several million pounds of bridging finance out of the Central Bank.

Elcom and Conde were in a more intermediate position, between 'Bridge Street' and the possibilities of peak power for a modernising, black coal fired grid. Elcom supported the claim to institutional autonomy by the SECV

but was forced to compromise with the State's water bureaucracy. Its own system also stood to gain significantly from the Scheme. New South Wales as a whole, however, had been favoured as its less economic half of the Scheme was begun first and it had gained a larger dam--Eucumbene--although Blowering would be deferred.

Nevertheless, given Victoria's anger and the political mileage which New South Wales Labor could gain by supporting Victoria's--Liberal or Labor--claims, this delayed forum for negotiations thence became a venue for a range of issues. Constitutional rights, uniform taxation, inflationary and/or Commonwealth-centred financing policies and the related role of private versus central banking gained an airing through the technopolitical negotiations of the Council. That Menzies initially appeared to favour a greater role for the States and private banks soon opened up various avenues of attack as especially inflationary forces and unemployment mounted.

Taking advice of Brown especially but without much legitimacy for its coordinating role, the Commonwealth was slow to openly involve the States. It took eighteen months to evolve the budget cuts of August 1951 and then another eighteen months for the Commonwealth and States to formally meet to discuss the agreement. By then, Spooner was hopeful that the Scheme was too far gone for it to be significantly challenged by the States. Although under strain, the Commonwealth was showing some 'strategic intelligence'. Despite the constitutional difficulties, it was willing to play Treasury off against the Snowy Authority and the Department of National Development on the one hand, and the States on the other, and to gradually enlist New South Wales. Circumventing the more strident States rights, anti-centrist elements, Kent Hughes was put in charge of Loder's Department of Works and Housing. In this, Menzies and Fadden were increasingly rendering any single, corporate force ineffective. This overall, if 'messy', shifting or triangular strategy persisted amongst a federalism in many ways at odds.

The alternative Advisory Council, with its consultative powers, could have been an avenue of progress. But Commonwealth bureaucrats and Ministers, to the increasing frustration from Spooner, deemed such co-operation too risky within this highly competitive federalism. Latterly, even the two Labor States were going against their Party's uniform taxation policy and

using the occasion to challenge Menzies. Also under challenge from the more strictly 'free market' proponents such as Packer and Wentworth, as inflation and cut backs saw Menzies' popularity fall, and then as the economics of the Scheme began to fade in comparison with rival, short-term proposals, campaigns to sustain loyalty for the Scheme emerged. Under some protest from within government (especially Kent Hughes), the long term hopes for the Scheme were supported through a sustained publicity campaign.

After early Cold War themes of battling nature--or the 'enemy within'--for national security whilst balancing manufacturing and agricultural goals, the question for the Authority became one of how to legitimate an intensifying agribusiness tradition. From the thrill of the machinic-masculine yet anxious, populate or perish forerunners, the Authority evolved an in-house style. Re-focussing the Cold War imperatives of loyalty and hard work, whilst increasingly serving the imperatives of farming, it sought to identify diesel driven methods with remade traditions. After associating migrant workers and the Scheme with the adept horsemanship of Alpine mustering tradition, the Authority drew upon the *Sydney Morning Herald's* campaign of the mid 1940s. A farmer displaced by drought could now find work on the Scheme whilst renewing his occupational role and drought proofing the interior.

Accordingly, older traditions were reconciled to and remade by the emerging corporate forms. The Authority continued to emphasise skill and dedication by evoking awe towards the task. It then sought to resolve the threats of the new methods and a migrant workforce by encoding them with recuperating, nationalist mythologies. Skill with large machinery in place of adept horsemanship plus dedication to work in a rough if friendly Australian terrain also continued to displaced any overt battle between nations. Themes of hard work in a virtuous, masculine battle against nature for a renewed nation, predominated. Denials of indigenous cultures, the use of a predominantly migrant labour force being assimilated under hard driving labour regimes plus its agribusiness assumptions also establish the Scheme's cultural characteristics. Unsurprisingly, the Scheme of the early 1950s may be considered as a site--predominantly--of Anglophone remaking.

The machinations and manoeuvring of the committees and the Advisory Council, rather than public relations exercises, held the key to resolving the institutional problems. Given the competing definitions of (systems) efficiencies and the complexities of the choices on offer, an alternative and resolute approach by the politicians, and chief negotiators, was required to transcend the bureaucratic stand-offs and technicist arguments. Spooner and the Commonwealth chose, however, to largely ignore the constitutional 'cats cradle' of an Advisory Council. But in a manner similar to the internal politics of federalism, Menzies appears to have been working to play US and Sterling financial possibilities off against each other. Supposedly lending some support to the Sterling push, Menzies may have been grandstanding whilst encouraging the States to take up the weaker financial association.

Such an approach also encouraged private banks and anti-centrist, 'anti-socialist' control of banking approaches. States-rights and London-orientated banking forces could join together to attack the Menzian-Country Party agreement to pursue the 'centrist' and thence 'inflationary' Scheme. The States combined to force an apparent overturning of the Commonwealth's control over the Advisory Council. As the Commonwealth could shift the focus of agreement negotiations between financial and constitutional powers, that is between 'cost' versus 'control' options for State involvement, this proved to be a further stalling tactic. Finally, as inflation and other cost pressures on the Scheme began to mount, industrial pressures aimed at challenging the AWU in New South Wales, were intensifying.

In sum, at this time of highly competitive federalism fired by the opportunities of global finance for capital intensive development, large technical systems and various, state-based authorities were competing mightily rather than co-ordinating their efforts. Without a participatory, fluent broking forum such as a workable Council, the complex and shifting factions of federalism were at odds, and were further strained by efforts to secure a putatively military-agricultural nation with burgeoning works programs. This three-way battle, but especially with Victoria, obviated communicative planning despite the fact that work had actually commenced and was to intensify. Against a Commonwealth which chose delay and filmic propaganda to confident negotiations, rival State-based systems were still pushing forward against an even more enlarged

scenario, seeking to remain politically, economically and, especially now, symbolically legitimate.

Chapter 5: Infrastructure's Migrants & Uncle Toms

After the ploys and counter ploys of 1953, and as the 1954 federal election was approaching, hidden federalist strategies were again at work (figure 1). This would lead to the next design change to be considered. To intensify the use made of Upper Tumut plant, the diversion from the Tantangara Reservoir would be to Eucumbene rather than directly to the Lower Tumut via the Yarrangobilly project. Similarly, an intensified construction timetable would emerge as would new challenges as the management hierarchy was faced with a predominantly migrant workforce. With altered plans, new construction methods and Cold War industrial competition between unions intensifying, plus the burgeoning number of non-English speaking workers, the challenge for politicians, union leadership and management, now included cross-cultural industrial relations. Calling for new skills and/or enabling greater returns for workers across a range of occupations, there was now the added question of whether the increasing numbers of often 'unskilled' migrant workers would be used as sheer labour power, as a soldier-labourer equivalence (figure 2) for the machines of construction--and politics.

In the first instance, Elcom was securing some important design revisions, to enlarge the Upper Tumut works. Conde began moving to have the load factors of the Tumut power stations increased, as this would provide more continual supplies of electricity, lessening the need for it to install plant.¹ Even as Elcom was moving to support the development of electricity production at the coalfields (of the Hunter and Illawarra valleys) and eventually a peak (Snowy) and base load (coalfield) combination, in the short term it remained desperately short of relatively constant supplies of power.

Accordingly, both the Snowy Authority and Elcom had been meeting in secret to intensify the Scheme's intermediate load characteristics, but not in a way that would allow the SECV to withdraw.² Positively for Spooner and

¹. Conde to Lewis, 16/12/53, NAA: MP558, 1953/1647 Part 1, *Snowy Mountains Advisory Council - Establishment of Technical Committee* and Hudson to Anderson, 19/1/54, NAA: A987, E909 Part 1, *Snowy Mountains Advisory Council Minutes*

². Jewell (Engineer for Design and Construction, SECV) to Connolly, 9/2/54, PRO: VPRS 8892/P1 646, 1954/4492, *Interim Snowy Mountains Advisory Council*.

Figure 1; Advertisement, Shell, "Playing Draughts with Mother Nature", SMH, 22/4/55.



Playing draughts with Mother Nature... As a result of a colossal game with nature, millions of tons of precious water will soon be diverted every year into the Murray and Murrumbidgee Valleys, bringing new wealth and prosperity to our growing country. Mountain torrents will be harnessed in the largest Commonwealth developmental project of all time, involving 7 major dams, 85 miles of tunnels, 400 miles of racelines and aqueducts and 17 power stations producing enough power to supply the present needs of the whole nation. As is usual in large-scale undertakings, a large proportion of the extensive range of petroleum products being used carries the quality Shell brand.



THE SHELL COMPANY OF AUSTRALIA LIMITED (INCORPORATED IN GREAT BRITAIN)

Figure 2; Advertisement; "Atlas Copco", *Daily Mirror*, 10/4/59.

Atlas Copco

The **ATLAS COPCO** equipment has been a partner in the development of the Snowy Scheme right from the beginning.

The efficiency and reliability of the ATLAS COPCO compressors and rock drilling equipment, and of the SANDVIK COROMANT drill steels are constantly being enjoyed by all major contractors to the scheme.



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Adelaide
Phone LU7692
Fremantle
Phone 5-4099
Kalgoorlie
Phone 1169
Darwin
Phone 798
Alice Springs
Townsville

ATLAS COPCO PUTS COMPRESSED AIR TO WORK FOR THE WORLD

Hudson, there were also growing "internal differences of opinion"³ on the worthiness of hydro-based peak power between Thorn and Webster of the SECV.⁴ This latest design 'agreement' also allowed Spooner to reassert to Cabinet that the Commonwealth could now, again, control the design and, with little risk, provide a guarantee to the States "against power costing more than equivalent thermal power."⁵

After the discussions with Elcom, Hudson then revealed to the full Advisory Council that diverting the waters from the Tantangara Dam (or from the Upper Murrumbidgee) into Eucumbene rather than directly to the lower Tumut would save on expenditures (figures 3 & 4). That is, by not developing the Yarrangobilly project, the water could, instead, be diverted through Upper Tumut plant already planned. This would soon be complimented by efforts to divert Tooma water to Adaminaby earlier than planned. Lewis would later estimate that the former change would mean foregoing 29% of the energy otherwise available from the Yarrangobilly project.⁶ As such, however, this now intensified approach was further reason to quickly provide tunnels and the much larger Eucumbene dam for the Upper Tumut project.⁷ In the immediate term, as engineers debated whether unlined tunnels would increase or reduce flow rates, the changes also meant that the calling of tenders had been delayed.⁸

Given this alteration, to feed more tunnels into the larger dam, the clear majority on the Advisory Council remained firmly opposed to Renshaw's and the New South Wales Department of Works' method of building Eucumbene. That is, they remained keen on the new contract methods of construction in place of 'day labour' methods.⁹ Hitherto, nation-wide, the

³. Webster to Thorn, 19/2/54, PRO: VPRS 8892/P1, 646, 1954/13812, *Snowy Mountains Hydro Electric Scheme*.

⁴. Thorn to Connolly, 16/3/54 & Webster to Thorn, 19/2/54, PRO: *ibid*

⁵. Spooner, Cabinet Submission, 1/2/54, p. 3, NAA: A571, 1953/826 Part 16, *Snowy Mountains Hydro Electric Authority - Draft Agreement with State governments*.

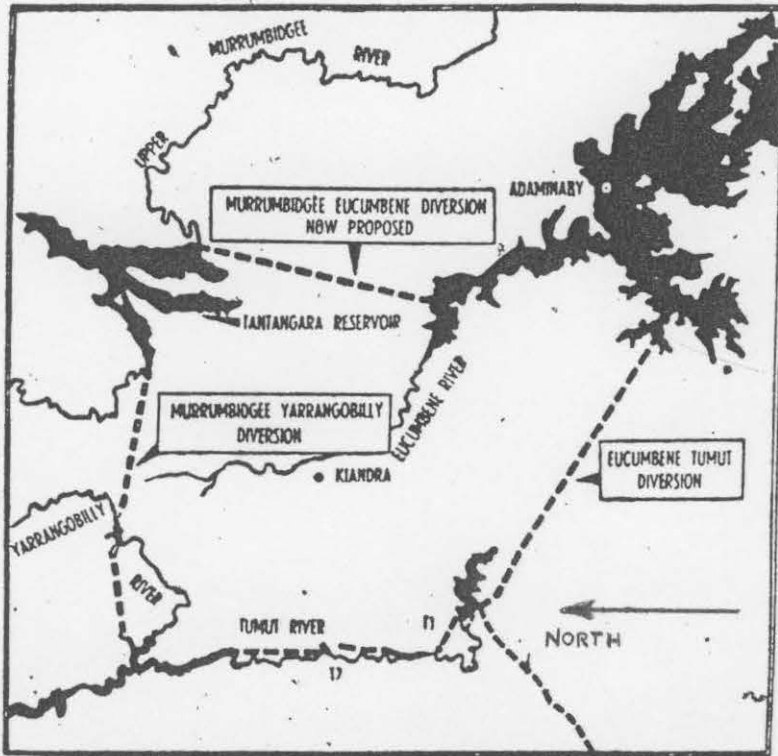
⁶. Lewis, "Snowy Mountains Advisory Council: Technical Committee", 12/1/55, NAA: MP558, 1953/1647 Part 2, *op. cit.*

⁷. "Minutes of Meeting of the Interim Snowy Mountains Advisory Council", 23-24/3/54, p. 6, NAA: A987, E909 Part 1, *op. cit.*

⁸. Gilfillan, W. R., "Commonwealth-States Negotiations Which Preceded The Snowy Mountains Scheme", 'Second Draft', p. 18 (Document 3421), NAA: A2618, Documents 3416 to 3422, *Snowy Mountains Authority Historical Material Press Cuttings 1950-1967 and departmental papers*.

⁹. "Minutes of Meeting of the Interim Snowy Mountains Advisory Council", 23-24/3/54, p. 2, NAA: A987, E909 Part 1, *op. cit.*

Figures 3 & 4; Graphic of altered layout for Scheme; *SMH*, 11/11/55, and cartoon by Eyre, "Another Failure", *SMH*, 15/5/52.



Map shows Snowy Scheme diversion to save £23 million.

ANOTHER FAILURE



predominant method of construction was that of day labour. Government departments such as the powerful (and AWU linked) New South Wales Public Works Department, organised plans and materials and hired workers to work as directed for fixed rates, over day shifts and as money became available. But with the construction of Guthega on the upper Snowy well in hand (via a Norwegian contractor which also brought most of its own workers), the focus was now shifting to the major projects to be completed by the new contract conditions favoured by the Menzies government.

The overseas contractors, especially the US-led consortia, well used to working under 'contracting out' conditions now being introduced via the Snowy Authority, would tender for whole contracts, for completed tunnels, dams and power stations. The emphasis for these firms was upon capital-intensive plant being driven hard and fast with incentives and bonuses for the best returns. All had to commit to a concerted, round-the-clock 'campaign' within a highly mechanised 'production-line of the mine'. High-powered diesel driven earthmovers sped across the terrain. Multi-level, rail mounted drilling platforms or 'jumbos' allowed crews to simultaneously drill blast-holes, increasing the rates of tunnelling. As had been long desired by most engineers, these methods avoided the stop-start nature of design and construction.

Rivalries, however, were intensifying. Industrially, the Groupers were asserting themselves both within the unions and ALP. Firstly, the social vision of these Catholic-inspired, anti-communist activists was linked to the Scheme and its populating aims. It fitted well with Santamaria's agrarian Catholicism combined with a 'Christian Democrat' role for a revamped ALP. That is, for Santamaria, the Government, via the Scheme:

was about to strike a match, and out of the fire a new social order could be built...it could be a Christian social order based on the small farm, the small industrial unit, the small social unit, the small town.¹⁰

If optimistically, both the migration program and the Snowy Scheme could see Catholics migrating to rural areas and thence provide the Catholic Church with "great accessions of strength" and thus "completely transform

¹⁰. Address by B. A. Santamaria to the National Catholic Rural Movement, April 1951, quoted in Murray, R., *The Split. Australian Labor in the Fifties*, Melbourne, Cheshire, 1970, p. 113.

the leadership of the Labor movement."¹¹ But with competition for union numbers intensifying, it would be the migrant workers who would soon be courted by the Groupers.

With its own concerns, and with the Menzies coalition unexpectedly scraping home by seats if not votes in the controversial spy scares of the 'Petrov' federal election of late May 1954, Treasury was again insisting that "there is no justification for not compounding interest during construction."¹² Design changes were causing further debate about how to account for irrigation or power components. Hudson was suggesting that charges for water be considered.¹³ An independent review of the whole Scheme was still favoured by Conde.¹⁴ Again given Menzies' unexpected win, the States and the electricity commissions were combining through the Advisory Council to force a review of how the Scheme would integrate with the State's electrical systems by hiring Ebasco to review the project.¹⁵

The Menzies government was continuing to push for control by a single Commonwealth industrial judge to oversee the Scheme. This, it was hoped, would bring costs under the legislative control of a Commonwealth industrial jurisdiction more willing to contain 'margins' or wage increases. Secondly, after legislation by Chifley, boosted by Menzies and investigated by Justice Dunphy for federal parliament, unions were under increasing pressure to allow their elections to be conducted under the auspices of the Industrial Registrar. Overall, by autumn 1954, with alterations to the Upper Tumut project in prospect, the pressures to shift to new methods of work, construction management and industrial control were intensifying.

For its part, the large Australian Workers Union, fast becoming the predominant union on the Scheme was, by 1954, attacking both the communist and Grouper unions. Post-war, as we have seen with the miner's

¹¹. Santamaria, B. A., quoted in Short, Susanna, *Laurie Short: A Political Life*, Sydney, Allen and Unwin, 1992, p. 206.

¹². Hibberd to Spooner, 25/5/54, NAA: A571, 1954/123 Part 2, *Snowy Mountains Authority - Capital Charges*.

¹³. Hudson to Hibberd, 16/6/54, NAA: A571, 1963/4932 Part 1, *Snowy Mountains Hydro Electric Authority - Financial Directives*.

¹⁴. Renshaw to Galbally, 26/5/54, PRO: VPRS 8892/P1 646, 1954/4492, *Interim Snowy Mountains Advisory Council*.

¹⁵. "Minutes of the 9th Meeting of the Interim Snowy Mountains Advisory Council", 22/6/54, p. 4, NAA: A2915, A53 Part 1, *Snowy Mountains Hydro-Electric Authority - Proceedings of Interim Snowy Mountains Advisory Council*.

strike and given its shrinking rural workforce, it was keen to defend its autonomy. The rival organisation for union dominance--the combined Australian Council of Trade Unions (ACTU)--was also emerging as a national governing body. But, seeking to preserve its autonomy, the AWU was refusing to affiliate and had been attacking the ACTU as being in league with communists.¹⁶

Strategically, as a 'company union' rarely supportive of strikes, the AWU was willing to allow piece-rate conditions. For the Snowy Scheme--with its large workforce--it preferred a New South Wales industrial jurisdiction, under Justice Taylor, the head of the New South Wales Industrial Commission. In tune with the contractors and the AWU itself, Taylor's approach was to achieve "uninterrupted production...to achieve a high level of construction activity unhampered by work stoppages."¹⁷ In fact, the most expensive hearings for this approach--accident and safety hearings--would figure in only 2 out of 186 hearings. Nevertheless, in contravention of the thrust of the Commonwealth Arbitration Commission's jurisdiction and concerns, Taylor would grant many hearings and concessions on the matter of special allowances.¹⁸

On the other industrial hand to the Snowy Authority therefore, in sympathy with consortia that preferred piece-rate conditions and under the industrial jurisdiction of Justice Taylor, the AWU was in a strong position. But its ballots were often corrupt; "ballot-rigging in AWU elections, particularly in Queensland and New South Wales, was as traditional as gift giving at Christmas."¹⁹ The AWU, although close to contractors was, therefore, vulnerable to Cold War industrial rivalries. These industrial factors, including the intensification of work about to

¹⁶. Hagan, J., *A History of the Labor Party in New South Wales 1891-1991*, Melbourne, Longman Cheshire, 1991, p. 149 and Hearn, M. and Knowles, H., *One Big Union*, Melbourne, Cambridge University Press, 1996, p. 214.

¹⁷. Kleinsorge, Paul L., "Industrial Relations on the Snowy Mountains Project: The Development of a System of Conciliation", *Journal of Industrial Relations*, Vol. 12, 1970, p. 298-9.

¹⁸. *Ibid*, p. 296.

¹⁹. Guy, Bill, *A Life on the Left: A Biography of Clyde Cameron*, Kent Town, Wakefield Press, 1999, p. 85. For a full description of AWU rorts, see the report by the Federal President of the ALP; Burns, T. J., *A Selection of Submissions Received by the Federal Executive Council When Investigating Complaints Re The New South Wales Branch of the Australian Labor Party*, Sydney?, The ALP, 1970?, NLA, MS 4985, Box 128, File 79.

occur, would profoundly influence the manner in which the workforce was protected within the rapidly changing industrial conditions.

All of these factors may be seen at work in the example of Jerzy Bielski. In particular, his story highlights the experiences and cross-cultural issues affecting migrant workers. From 1951 until 1958, Bielski, a Polish-born political refugee, was employed by the AWU to lead its campaign to better inform--and enlist--the many migrant workers now gaining work on the Scheme.

Born in 1921 in Warsaw with a Jewish mother and Catholic father, he had experienced much by his arrival. As a rebellious youth, he became a member of a nationalist student collective, active in 'Zadruga' (an old Slavic word for that which inspires collective action) as its publicist. Being Polish-nationalist, it was also anti-German and anti-Jewish. In 1936, however, he joined the International Brigades (upping his age) to fight the fascists in Spain. When World War Two came, he fought for the Polish Underground, having to evade or escape from both German and Russian military forces, being eventually captured by the Nazis and sent to Auschwitz concentration camp. There, as well as suffering terrible physical hardship and mental anguish, he worked as an electrician.

Typically, he also became a representative for political prisoners. This, plus his longevity in the camp, placed him in a relatively well-informed position about the knowledge that Nazi officers had of the atrocities. After being liberated from this deathly junction of Speer's transport efficiencies (figure 5), he became a significant witness for the Nuremberg war trials.²⁰ He became the leader of the Polish Socialist Party in the US zone in Germany. As well, he became the leader (General Secretary) of the Polish Workers Trade Union for West Germany and also a Vice President of the International Socialist Solidarity Committee for West Germany. Bielski found work as a manager of a camp for ex-prisoners, near Bremen, organising displaced persons. He edited one of the largest Polish language weeklies published in West Germany, the *Literary Review*, serving a Polish readership in the country of over 1 million.²¹

²⁰. Interview with Bielski, 8/3/96.

²¹. Letter from Bielski, 4/5/96.

Figure 5; Photograph by Lee Miller, "Trains at Dachau: Prisoners have died on the short march to the camp" (1945). From Livingston, Jane, *Lee Miller Photographer*, London, Thames and Hudson, 1989, p. 79.



Lee Miller, Trains at Dachau: Prisoners have died on the short march to camp, 1945, Lee Miller Archives.

Upon arrival in Australia, he found work at the Commonwealth Printing Works in Ultimo. After being recommended by a leading Polish trade unionist in the United States, Mr. Alojzy Adamczyk, to Dougherty, the President of the AWU, Bielski then agreed to work as an organiser, at first on a probationary basis. As he had been hired as an organiser for migrant workers, he had to negotiate workplace problems faced by workers who had a first language other than English.²² He soon visited many construction, factory, refinery and farm work-sites. In February 1951 he began writing in English and Polish in *The Australian Worker*. This was soon extended into German, Italian and French so as to encourage migrant workers to belong to the AWU.

Identifying with and idealising the tradition of unionism for his readership, he argued that the AWU was "the oldest and the most reliable in the Australian Trades Union Movement in its fight for the victory of democratic ideals...[the] AWU is the pride and hope of Trade Unionism."²³ Bielski's regular half page in *The Australian Worker* sought to acquaint migrant workers with history and industrial coverage of the union, the role of the local 'rep' and the relatively inexpensive cost of the AWU ticket. He appealed for readers to write in and express their concerns. Less positively, however, he could also take a conspiratorial view, also writing about how the Liberals were "infiltrating" New Settler Leagues.²⁴

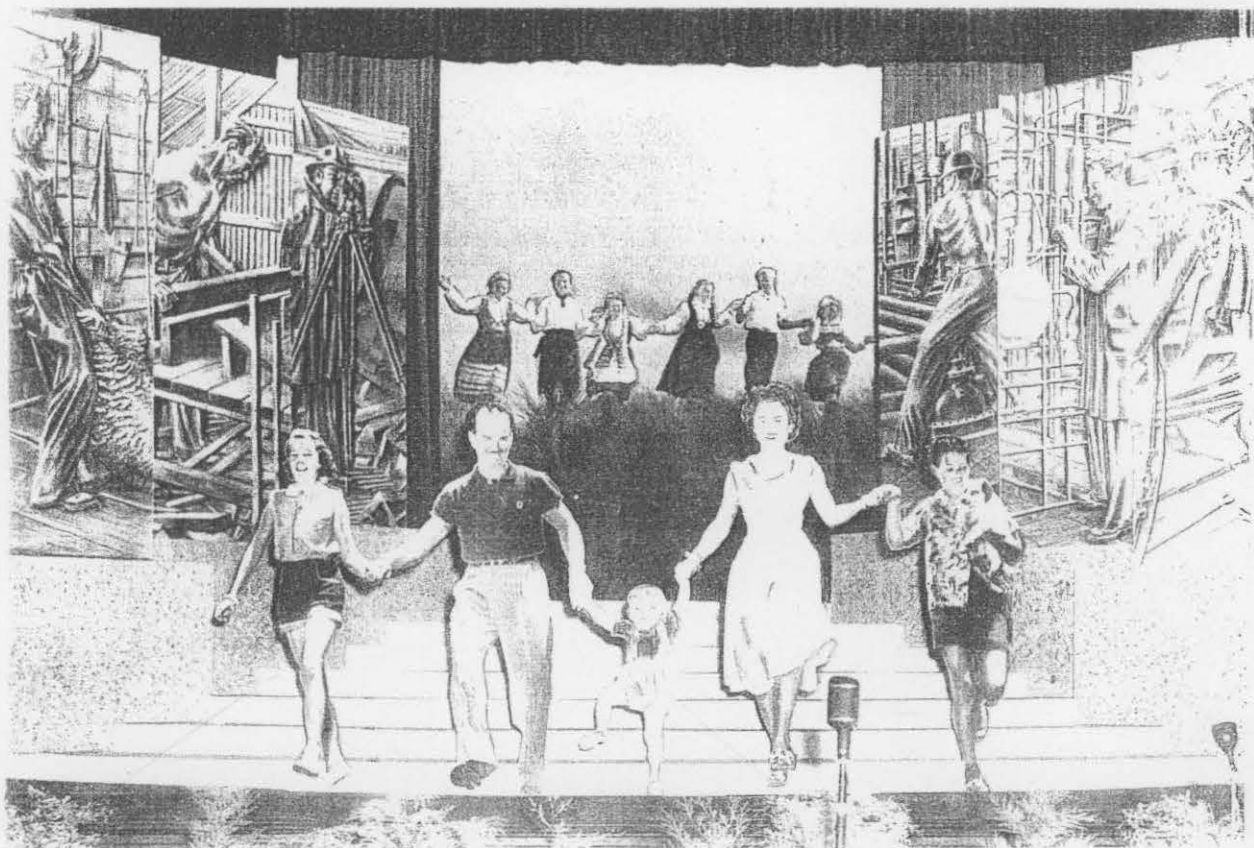
One problem stood out. He soon found that assimilationism was a convenient means by which some managers intimidated migrants. Passing through the uncertainties of a cross-cultural and industrial 'rite of passage' (figure 6), migrants were vulnerable to an industrial discipline, toward becoming a compliant and subservient work-force. Bielski reacted, sometimes contentiously, by haranguing, berating and slandering the perpetrators of intimidation and those who denied rights and proper wages. Prepared to be outraged where others would be fearful, but also controversial in his methods, on occasions he would 'find himself' amongst some minor brawls and fights between men and supervisors. Bielski was able to enlist far more migrant workers than any other AWU organiser. The State Secretary,

²². Interview with Bielski, 25/5/97.

²³. Bielski, J., "Appeal to Migrants", *The Australian Worker*, 28/2/51, p. 11-12

²⁴. [Bielski], "Report on Liberal Party Activities for New Australians" (circa late 1953), NBA: M44 [AWU Head Office], Reel 35, "Bielski File on New Australians".

Figure 6; Photograph, "Citizenship Convention, Canberra, 1958",
Department of Immigration and Multicultural Affairs photograph. No.
58/11/9.



THE stage tableau featured at the Albert Hall depicted the assimilation of migrants. It showed, symbolically, the part newcomers are playing in our development and also how they merge into their new homeland. A photographic display, in the Albert Hall ante-room, showed migrant children learning, at schools, at universities and at sport, to become our future citizens. The display of more than 100 pictures was titled — "Tomorrow's Australians".

Oliver, soon regarded Bielski as "a magician" as a result of his abilities to swell membership.

As well as employing Bielski, the AWU New South Wales Executive had been considering the implications of the Snowy Mountains Act. The Scheme increased membership such that it brought "increased delegations to the State Labor Conference and the Labor Council."²⁵ These were crucial given the emerging turmoil between industrial factions. After the fall of the Cain Victorian government in April due to the loss of support from the Grouper faction, the AWU in New South Wales then sought to further protect itself from Grouper intervention. Re-aligning itself with left unions, it gained assurances from the Trades and Labour Council that no Groups would be formed within its ranks.²⁶

By 1954, therefore, and contrary to the added support to membership numbers by compulsory union legislation being introduced by the pro-Grouper Cahill government, the autocratic AWU was keen to ensure that no rival membership faction could emerge. Accordingly, the AWU was now determined to "deny membership to Asians, communist and 'new applicants it considered undesirable'."²⁷ Contrary to the apparent support given to Bielski, this "White Australian union" was also becoming "most selective" in handling applications from migrants.²⁸

Inter-State rivalry on the Scheme remained intense. Presumably by way of informing Ebasco of the federalist politics of the situation, an article appeared in the London *Financial Times*.²⁹ Expressing more the concerns of Victoria and the SECV in particular (possibly via the federal Minister Kent Hughes and Connolly) and promoting a continuing London financial connection for the States, it took a strident 'States Rights' approach, especially on the related issue of uniform taxation. It characterised the Commonwealth's involvement as being "tactless and overbearing" and "*ultra vires* its Constitution" such that the Snowy Authority was appointed

²⁵. Dodkin, Marilyn, *Charlie Oliver; A Political Biography*, MA Thesis, University of Sydney, 1990, p. 23

²⁶. "Why Groups Capitulated to AWU", *Century*, 18/6/54, p. 3.

²⁷. Hearn and Knowles, op. cit., p. 217.

²⁸. "AWU First to Bump Trouble", *Century*, 22/1/54, p. 6.

²⁹. Unattributed Article; "Heat in the Snowy Mountains; Problems Facing Big Project", typed transcript from *Financial Times* [London], 15/9/54, from NSW Treasury (Special Bundles), SRNSW: 13/10079, SB 210, *Snowy Mountains Agreement*

by "force majeure." The SECV, in fact, was secretly evolving another possible layout for the Scheme. It redirected all the water from the Murray Scheme tributaries back into the larger Eucumbene Dam and then down the Tumut with the result that "all regulation [would be] reasonably justified."³⁰ Yet as this jibe at the enlarged Tumut 'irrigation' project would have eliminated the Snowy-Murray development it was politically impracticable.³¹

The engineers were also coming up against the difficulties, both conceptual and practical, of calculating the cost of alternative scenarios. Compounding matters, by way of defending their own institutional positions, the engineers were favouring a systems-centred approach from the point of view, in each case, of their own systems.³² Who would operate the Scheme was also being brokered, and competing definitions of efficiency emerged. The Authority and Elcom both suggested that for optimal operation they alone should be in charge.³³ (figure 7)

An 'opportunity cost' approach, one that would optimise a range of combinations of large, multipurpose systems across three states, was horrendously complex. International forums were only now (mid 1954) working through the (itself limited) problem of how best to combine hydro and thermal electricity generation options.³⁴ Accordingly, a simple 'equivalence' method was still preferred, especially by Conde,³⁵ even though this approach could drive the Snowy Scheme design into a higher load factor, towards aping the thermal stations to which it was being

³⁰. SECV, "Modified Snowy Mountains Scheme", 23/5/55, PRO: VPRS 8892/P1, 648, 1955/17581, *Water Power*.

³¹. Hudson to Loder, 8/7/55, NAA: MP766, 1959/347 Part 3, *Snowy Mountains Advisory Council*.

³². See, for eg, Snowy Mountains Hydro Electric Authority, "The Storage Capacity of Adaminaby Dam, The Generating Capacity at Station T1 and the Capacity of the Eucumbene-Tumut Tunnel", 7/6/54, p. 1, NAA: MP558, 1953/1647 Part 3, *Snowy Mountains Advisory Council - Establishment of Technical Committee*

³³. See various correspondence, September to December 1954, NAA: CP608, Bundle 2/2, *Snowy Mountains Hydro Electric Scheme - Agreement Papers*

³⁴. De Luccia, R. E., "State of Hydro-Electric Power Development in the United States", *Fourth World Power Conference*, London, Percy, Lund, Humphries and Co, 1950, p. 2091 and see Fulton, A. A. and Peattie, J. D., "Integration of Hydro and Thermal Generation in Great Britain", *Proceedings of World Power Conference, Sectional Meeting, Brazil, 1954* [and others] and Haldane, T. G. N., and Blackstone, P. L., "Problems of Hydro-Electric Design in Mixed Thermal-Hydro-Electric Systems", *Proc. I. E. E.*, Vol. 102, Part A, No. 3, 1955.

³⁵. Palmer, Engineer for Planning, SECV, "Notes...29th and 30th June, 1954", PRO: VPRS 8892/P1 646, 1954/13812, *Snowy Mountains Hydro Electric Scheme*.

Figure 7; Diagram, from SMHEA Cabinet Submission, Appendix F, p. 5, 30/11/54, NAA: CP608, Bundle 2/3, Folder 2, depicting the supposed problems which would arise with divided control.

OPERATION OF SNOWY SCHEME WITH DIVIDED CONTROL

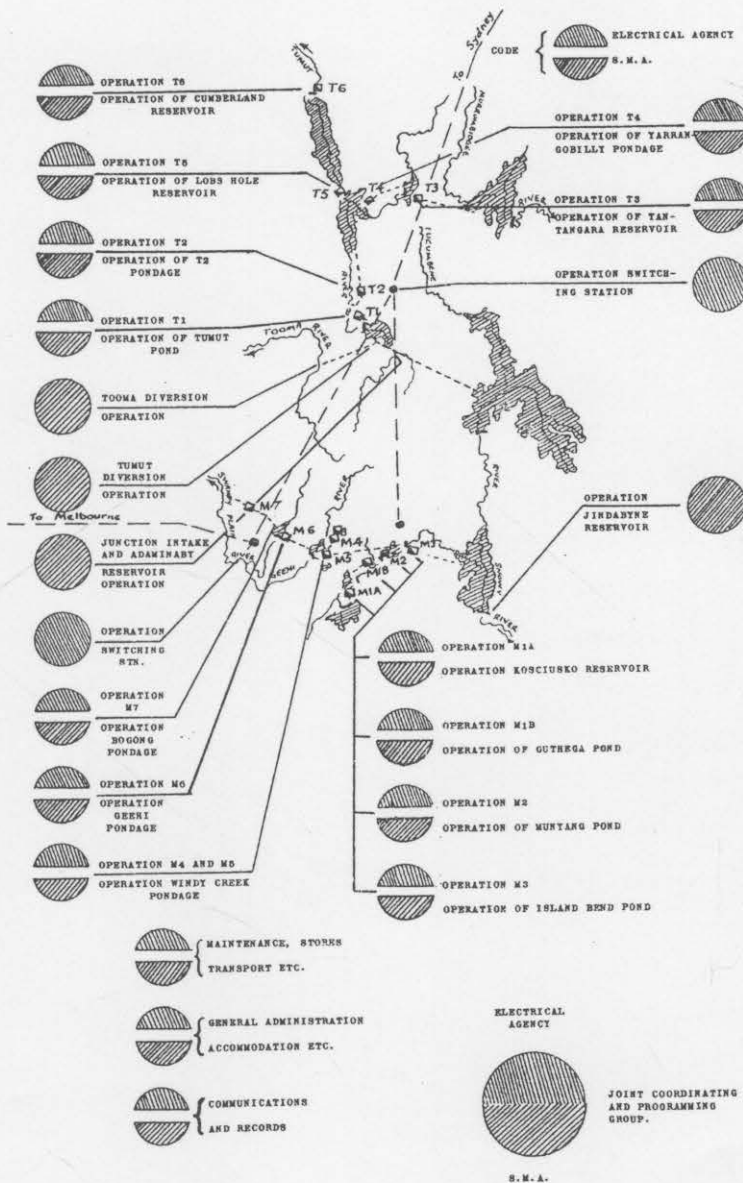


DIAGRAM 1
 2
 30. 11. 54

compared. Either way, however, Cabinet had decided that "the Commonwealth should push up the cost of Snowy power towards the ceiling of equality with thermal costs."³⁶ Through the politics of the ceiling clause, and taking advantage of the fact that Treasury was still to announce its costing criteria, as large an (irrigation) Scheme as possible was to be squeezed out of the State's electricity revenues.

By September 1954, a complex, cost-shifting deadlock had set in. The Authority was calling for greater effort by the States in examining the economics of the intensified Upper Tumut works. For Hudson, they were now better suited to New South Wales' short term power needs and financially less expensive. As well, Hudson stressed the extra value of peak power--potentially an adjunct to coal.³⁷ The States, however, would not seriously review the economics until the Commonwealth Treasury revealed their rates for calculating costs for the Upper Tumut works, costs which were now to be shared with the Murray project. Treasury, however, was calling on the Department of National Development and the Snowy Authority to finalise designs for the Upper Tumut works before it determined the capital charges.³⁸ But, as Raggatt suggested to Spooner, given Cabinet's position, this was leading to "suspicion as to the Commonwealth's intentions."³⁹ Fundamentally, the States preferred the 'independent' Ebasco review, even as Ebasco preferred an 'opportunity cost' approach. As Raggatt conceded to Hibberd, the decision-making process remained difficult and had now become "cyclical."⁴⁰

Spoooner, Raggatt and Hudson thence combined in a joint Departmental and Authority submission to argue against the strictures being imposed by a Fadden-led Treasury.⁴¹ They claimed that an on-going constitutional nightmare was still in the offing unless an Agreement was reached. Unmoved, Treasury was allowed to retain its 'right of review'. Nevertheless,

³⁶. Cabinet Committee, Minutes of Meeting, 7/7/54, NAA: A571, 1953/826 Part 14, op. cit.

³⁷. Hudson to Spooner, "Proposed Commonwealth - States Agreement, Ceiling Price Clause." [and attachments], 15/10/54, NAA: CP608, Bundle 2/2, op. cit.

³⁸. Hudson, SMHEA Minute, "Treasurer's Financial Directive (Compounding Interest)", 20/9/54, NAA: A2915, A53 Part 1, op. cit.

³⁹. Raggatt to Spooner, 20/10/54, NAA: CP608/1, Bundle 2/2, op. cit.

⁴⁰. Raggatt to Hibberd, 21/9/54, NAA: *ibid*.

⁴¹. Annexure to Appendix E, p. 4, Spooner/SMHEA, "Submission Relating to Commonwealth-State Agreement on the Snowy Mountains Hydro-Electric Scheme", 6th December 1954, NAA: CP608 Bundle 2/3, *Snowy Mountains Hydro Electric Scheme - Agreement Papers*.

Hudson had other avenues along which to push. With the (delayed) approval of contracts for Upper Tumut works, the design revamps and continuing doubts if not outright opposition to the plans, the Authority, since August (not long after the election) had been moving to re-constitute the industrial arrangements under which work was being carried out.⁴²

At this crucial juncture, industrial relations across the country were in turmoil. Since the unanticipated, 'Petrov election' failure for the ALP of May and the continuing anti-communist scare mongering, Evatt had changed tack and moved against the 'minority groups' within the ALP. He believed their attitude had been counterproductive and that the Groupers had been playing for a time when they would be stronger.⁴³ On the 5th of October 1954, Evatt accused Santamaria, the Catholic Social Studies Movement and the fervent anti-communist 'Grouper' supporters within the Victorian and New South Wales ALP of being disloyal to him and to the party. This was a boon for the AWU. As historians of the AWU have commented, "with a single statement Evatt had lifted the AWU's reversal of support for the groups from the realms of self interest to a struggle to save the soul of the Labor Party."⁴⁴ The role of the AWU would now prove crucial for displacing of the Groupers. But given the cost pressures, Hudson was now seeking to displace the AWU from its New South Wales' industrial jurisdiction for Snowy workers.

As mid summer arrived and at the height of the first major construction campaign, the Authority and the AWU became embroiled in a significant industrial dispute. The unions were resisting having to appear before a Commonwealth industrial court and were striking to retain their status under the New South Wales Industrial Court.⁴⁵ A complete stoppage of work had occurred from the 21st of January with 600 men joining 100 tunnellers from the Eucumbene-Tumut tunnel with Taylor seeking to arbitrate. An ambit claim of double their hourly rate was sought.⁴⁶ At the same time, Justice Taylor was himself appearing before a tribunal. He had been

⁴². Spooner to the Attorney General, J. A. Spicer, 30/8/54, NAA: M1505, 1199, *Snowy Mountains Agreement - Water Clauses*.

⁴³. Short, op. cit., p. 210.

⁴⁴. Hearn and Knowles, op. cit., p. 218-19.

⁴⁵. Kerr, J and Watson, V., "Opinion", 31/1/55, p. 3, NAA: A432 1953/1023, *Australian Workers' Union - Application for Snowy Mountains Hydro-electric Authority Award*

⁴⁶. "600 Workmen Strike at Tunnel", *SMH*, 2/2/55, p. 11.

brought before the Royal Commission on Espionage to answer allegations that he had been mentioned favourably in correspondence between Moscow and Australia and had inadvertently revealed the name of an under cover agent to communists during his dealings with communist unions.⁴⁷

The contractors themselves, however, were keen to increase incentive payments being supported by the AWU, which continued to support piece-rate conditions.⁴⁸ Indeed, Clark, the Authority's industrial officer, was convinced that "the union and the contractor" would do "everything possible" to gain State coverage at an early date.⁴⁹ Hudson feared the increased wages bill, mooting an extra £40 million over the life of the project.⁵⁰ The Authority was increasingly caught between an inability to insist on a Commonwealth jurisdiction due to constitutional doubt surrounding the Act and a 'schedule of rates' contract provision. Latterly, this automatically passed wage increases directly onto contract prices and hence back to the Authority, although it would be later altered to encourage contractors to resist wage increases.⁵¹

Concurrent with the industrial action, the momentous January 1955 AWU Annual Convention then began and provided further scope for attacking the Groupers. The migrant presence was, again, a key. Keon, the Labor member for Yarra and regarded as a future leader of the ALP if the Groups seized control of it, had been hoping to enlist Bielski and his burgeoning migrant worker base. Keon therefore provided Bielski with information about a campaign to assist in the organisation of migrant workers for the Industrial Groups.⁵² In short, Bielski in his role as a migrant worker organiser had learnt of a planned Grouper push against Dougherty. Bielski, after having decided against joining his forces with the Groupers, then told

⁴⁷. Australia. Royal Commission on Espionage, *Official Transcript...28th January, 1955...NAA: M1507, 33, [Papers of K. H. Bailey...] S. C. TAYLOR...transcript of in-camera evidence.*

⁴⁸. "Notes on Proposals by Contractors...", 25/1/55, attached to letter from Hudson to Bailey, 25/1/55, NAA: A432, 1953/1023, op. cit.

⁴⁹. Rough notes by Hook from conference between Bailey, Lang, Clark and others, 28/1/55, NAA: ibid.

⁵⁰. "Notes of Conference...27th January, 1955", p. 1, NAA: ibid.

⁵¹. Hardman, D. K., *The Snowy Mountains Hydro-Electric Authority: A Political and Administrative Study*, Masters of Economics, University of Sydney, 1967, p. 204.

⁵². Interview with Bielski, 1/12/95.

of the "whispering campaigns" being mounted against Dougherty by the Groupers.⁵³

This evidence of Bielski's about the move by the Groupers against the AWU, along with "fear of rival organisation"⁵⁴, then encouraged the AWU to move openly against the Groupers during the convention. The consequent breach was "of fundamental importance, and decisively swung the balance of power against the Groupers."⁵⁵ After the decisive Hobart Federal ALP Conference of mid March 1955, which saw the split with the Groupers emerge in the federal party, the New South Wales branch of the AWU was still, however, outnumbered at the New South Wales Labor conference. Given the victory of the non-Grouper forces at the federal level, the New South Wales outcome remained fluid.

During this crucial period, the Authority remained as determined as ever to get wage costs down and to undercut the power of the AWU. It announced on the 3rd of February 1955, in response to the tunnellers' strike that it intended to go to the Commonwealth Court. Consequently, the men refused to go back to work, although after Taylor ordered that their claims would not be heard until a return to work, they returned on the 11th. The 15th of February then saw the Commonwealth reveal its plan. The Executive Council prescribed the industrial area within which the Authority and its Act would have power. This, in turn, precipitated a race for industrial jurisdiction.⁵⁶ A summons from the Authority for parties to appear in the Commonwealth jurisdiction soon arrived. The contractors, who were primarily interested in ensuring that "they are not financially prejudiced in the matter", unevenly supported it.⁵⁷

Until the Commonwealth Court had delivered its judgement, the New South Wales Industrial Court, under Taylor, remained the rival jurisdiction. There, John Kerr, acting for the Authority, believed that the union and Taylor were acting in a conspiratorial manner as they were meeting during an adjournment in Taylor's room; "the matter has all been

⁵³. Australian Workers' Union, *Official Report of the Sixty-Ninth Annual Convention* [24/1/55], Sydney, AWU, 1955, p. 105.

⁵⁴. Murray, *op. cit.*, p. 134

⁵⁵. *Ibid.*

⁵⁶. Renfree to Bailey, 28/2/55, NAA: A432, 1953/1023, *op. cit.*

⁵⁷. Renfree to Bailey, 15/2/55, NAA: *ibid.*

arranged."⁵⁸ Oliver had been informed of the Authority's determination to persist with the alternative jurisdiction, and informed Taylor that "they're gonna stop the case."⁵⁹ The day after quickly concluding the hearing of evidence, on Thursday March the 3rd, two working days before the Authority had announced that it would be persisting with a submission to the Commonwealth Court, Taylor, then rushed to deliver his judgement.

Taylor began by admonishing the Authority. Going for another jurisdiction was "a move completely lacking in tact."⁶⁰ Taylor also emphasised the speed at which the American joint-venture contractors operated and which "conditions the entire enterprise."⁶¹ He granted a substantial increase in pay for tunnelling crews and suggested that distant places allowance for workers under State awards should be extended to other awards. Crucially, he similarly directed all parties to seriously consider the introduction of an incentive payment system for the project, to be decided within two (short) weeks.

Even given the intensified practices, Hudson remained convinced, however, of the need to press for another jurisdiction. As the crucial matter of incentive payments for workers was still before the New South Wales Industrial Commission, the Authority still believed that is entitled to take the matter up with Justice Wright of the Commonwealth Conciliation and Arbitration Court. John Kerr, appearing for the Snowy Authority, and Lionel Murphy, appearing for the unions, began arguing the case.

Before White could reach a decision the AWU, now with support from the New South Wales TLC, then played its main card. It took out an application in the High Court challenging the validity of part of the Snowy Act.⁶² On the 6th of April 1955, the New South Wales branch unions employed by the Authority combined to lodge an application to the High Court seeking to restrain the Authority from proceeding with its action in the

⁵⁸. Renfree to Bailey, 28/2/55, NAA: *ibid*.

⁵⁹. Charlie Oliver interview, by Raxworthy, R, "Australians at Work - Union Leaders" Vol. 1, Tape TRC 2387, side 3, NLA.

⁶⁰. Justice Taylor, Industrial Commission of NSW, "Judgement", 3/3/55, p. 2, NAA: A432, 1953/1023, *op. cit*.

⁶¹. *Ibid*, p. 8.

⁶². Barwick, Kerr and Watson, "Joint Opinion", 9/8/56, NAA: A432, 1955/372, *Snowy Mountains Hydro-electric Power Act - Writ of Prohibition* and "Message from Mr. Bell", 11/3/55, NAA: A432, 1953/1023, *op. cit*.

Commonwealth Arbitration Court for a federal award.⁶³ Concurrently, the situation within the New South Wales ALP remained uncertain. As the anti-Grouper, pro-Evatt forces were asserting themselves, it was rumoured that Renshaw may be moving to replace Cahill.⁶⁴

Within the bureaucracy, perhaps given that the AWU's influence within (New South Wales') Labor Party circles was holding fast, Spooner speculated that any final agreement by the States was "likely to be conditional on a clarification of the position regarding the rate of interest and the accounting methods."⁶⁵ Then, with the AWU-New South Wales High Court action pending and Bolte now about to replace Cain in Victoria (consequent to 'the split'), even Fadden seems to have begun to lean Spooner's way.⁶⁶ Incentive rates, under Taylor's jurisdiction, then became *fait accompli* although, as mentioned, contractors would also be encouraged to resist such increases via an altered Act.

The tunnel between the Upper Tumut and Eucumbene (or Adaminaby) dam was now progressing considerably faster than expected⁶⁷ due to the Kaiser Group's incentive methods. This would produce earlier revenue for the Authority,⁶⁸ something that it was ever under pressure to achieve. By Winter 1954, to assist in bringing forward the date by which the Upper Tumut works would be in production, the Authority had also decided to divert the Tooma waters to Adaminaby at an earlier date. It was soon writing to the Public Works Department, asking it to increase the rate of placement of fill for the Dam.⁶⁹ By extension, for Hudson, it had become "obvious that it will be impossible to complete Adaminaby Dam on time if we continue to use day labour methods."⁷⁰ He was now hoping to achieve completion of the dam a year earlier than originally planned. Hudson also

⁶³. Court Order, High Court Of Australia, NSW Registry, 6/4/55, NAA: A432, 1955/372, op. cit.

⁶⁴. "Renshaw Consolidating Position in State Party", *Century*, 11/3/55, p. 2.

⁶⁵. Spooner, Cabinet Submission, 20/4/55, NAA: A571, 1953/826 Part 18, op. cit. and Cabinet Submission and Decision, 20&21/4/55, NAA: CP608 Bundle 2/3, op. cit.

⁶⁶. See Hibberd to Secretary of Treasury, 26/5/55, NAA: A571, 1953/826 Part 19, op. cit.

⁶⁷. Main, J., Minute, "Adaminaby Dam: Construction of Embankment", 5/7/55, from Public Works, SRNSW: AK474 WS1001/16, *Adaminaby Water Supply Scheme Tunnel Contract*.

⁶⁸. Hudson to Main, 3/5/55, SRNSW: *ibid*.

⁶⁹. Lang to Main, 1/7/54, A5638 AF232 Part 2, *Adaminaby Dam. Construction by Department of Public Works. General*.

⁷⁰. Hudson to Main, 5/7/55, SRNSW: AK474 WS1001/158, *Adaminaby Dam - Question of Contract Method*.

remained keen to persist with his long term goal, characterising the deferral of Yarrangobilly as temporary.⁷¹

Closer to the industrial realities for workers, however, Bielski was now becoming sceptical of the internal workings of the industrial system and of the AWU itself. He was coming to understand how the mutually sustaining economic ties worked between the ALP, the AWU and the Labour Law firms. Changes to compensation acts were increasing compensation payments, rather than protecting workers from unsafe conditions in the first place.⁷² In parallel, by January 1956, the USBR was strongly advising that contracts should be amended to ensure that "unsafe condition or practices" should be "immediately corrected."⁷³ Throughout the latter years of the decade, however, the *Cooma-Monaro Express* would contain reports of major accidents on the Scheme with shocking regularity.

Indeed, federalism had been slow to react, especially for the migrants who were now dominating much of the unskilled work force. Since 1947, International Labour Organisation conventions had refined the obligations of a state within federalist systems, with the Commonwealth Department of Labour and National service greatly aiding the ILO initiative.⁷⁴ It would take until September 1958, however, for a full, national convention to be held in Canberra, buoyed by the Second World Congress on the Prevention of Occupational Accidents held in Brussels in May 1958.⁷⁵ In the meantime, or over the previous five years, 1,130 workers would be killed in industrial accidents in New South Wales and there were "something like 500,000 industrial casualties in the same period in New South Wales."⁷⁶

⁷¹. Hudson to Raggatt, 7/6/55, NAA: A987, E824 Part 2, *Snowy Mountains Hydro Electric Authority - Cabinet Committee on Snowy Scheme Agreement*.

⁷². Bielski, J., "New Australian Section", *The Australian Worker*, 7/4/54, p. 5.

⁷³. Senior Engineering Advisor, USBR, to Chief Civil Engineer, 27/1/56, in appendix, Exhibit D, United States Department of the Interior, Bureau of Reclamation, *Summary Report. Engineering Advisors' Activities with Snowy Mountains Hydro-Electric Authority*, unpublished report, Cooma, The USBR, 1956, NAA: A2915 G278, *Reports by U.S. Bureau of Reclamation on Adaminaby & T1 Development*.

⁷⁴. Thomas, H. G., "Submission to Standards Association of Australia", [no date - circa late April 1946] NAA: B3533, 1075/1/1 Part 2, *Central Office - Accident Prevention Section - Policy - Policy and Programme*.

⁷⁵. See NAA: MP651, 1956/3176, *Second World Congress on Prevention of occupational accidents - Brussels 1958*.

⁷⁶. "Premier's Broadcast - 26th April 1959", NBA: Z285, Box 119, file "National Safety Week - 1959" [ACTU].

Hudson would eventually report to the belated Canberra conference that the rapidly changing circumstances of the civil engineering construction site and the intensified regimes of work, especially given the arrival of the US contractors, were increasing the risks.⁷⁷ By then, however, the piece-rate regimes, to encourage high rates of tunnelling in particular, would be stepping up to an even higher rate. 1959 would be another year of 'setting tunnelling records'. Given the rapidly changing technologies being deployed, this was more a measure of the rate of exploitation than productivity. In short, as the Cold War politics of the 1950s were being played out, it would take over ten years for the problems of a rapidly changing workplace to be identified.

Nevertheless, by then, the Authority began to prepare safety handbooks for the workers. But, in conformity with the assimilationist tenor of the times, these were initially made available only in English, to encourage the workers to learn the language, even at the pain of serious injury it seems, although the initial safety talk was also delivered in German and Italian as well.⁷⁸ Subsequently, by 1960, the Authority took up an initiative to translate booklets into workers first languages. This initiative was actually set in train by the workers themselves, by an Italian worker in the mechanical workshops, Mr. V. Capelletto, who had already begun the job in his own time.⁷⁹

At mid decade, however, although sensing the industrial carnage that was unfolding, Bielski was faced with the implications of the improper use to which his membership drives were being put. Bielski had come to believe that duping of Snowy workers via the rorting of AWU membership tickets had been occurring. Tickets had either not been supplied, or, the voting coupons of those belonging to migrant members in particular had been removed, presumably to illegally garner votes. A slush fund could be formed from the un-receipted moneys. This would protect the AWU from further 'internal interference', especially as it was during 1955, in a major

⁷⁷. Hudson, W., under "Discussion" section, Australia, Department of Labour and National Service, *Proceedings of the National Conference on Industrial Safety*, The Department, 1958, p. 55, NAA: MP690 1958/2632, *National Conference on Industrial Safety - [Canberra] 1958 - Record of Proceedings...*

⁷⁸. Hudson, W., "Safety Induction Talk to New Employees", September 1959, NAA: A2915, A534, *Snowy Mountains Hydro-Electric Authority - Authority Safety Advisory Committee - Agenda and minutes of meetings.*

⁷⁹. Robinson to Hudson, 25/1/60, NAA: A5628 1960/593, *Snowy Mountains Authority - Safety manuals in Foreign Languages - Preparation and Printing.*

industrial battle against the Groupers within the State union movement (figure 8).

As suspected by Bielski, and as would be made clear later in the decade by Clyde Cameron, "ten of thousands of [AWU] members never see a ballot paper", returning officers were being appointed by sitting officials and from 1955 no opening dates for federal positions were being announced.⁸⁰ Symptomatically, Oliver complained that the Groupers, via compulsory union membership legislation, had been seeking to increase their numbers at the State Labor Conference (since 1953).⁸¹ As Oliver would later comment, it would prove "a struggle" to increase numbers on the State Executive but "if you pay the piper you are entitled to call the tune...but the 'Movement' is still calling the tune."⁸²

For Main, the head of the New South Wales Public Works Department, the new method--if not rivalries--were eroding local engineering capacities. The replacement of the first major Australian contractor by a US contractor was troubling. Allied Constructions was the first major Australian company to gain a contract, constructing the diversion tunnel under the Eucumbene dam wall, necessary to allow the river to flow by as the dam was being built. With the design changes to the enlarged dam, however, severe technical and financial difficulties for the company had arisen.⁸³ The contract was then removed from the control of the company. Then, with the Public Works Department now pushing for extra machinery to increase its day labour embankment fill rates, the USBR was advising that it be done by a contractor capable of higher rates of work.⁸⁴

Main soon emphasised the importance of local control of construction work. Similarly, although he conceded to Hudson that contract methods intensified the rates of work, this did not mean that day labour methods would delay construction deadlines.⁸⁵ But as Hudson was now seeking to bring the completion date *forward*, the political risk of delaying the much

⁸⁰. "Ballot Faking Made Easy", *The Voice of the Rank and File*, August 1961, p. 3

⁸¹. "69th Annual Convention...", *The Australian Worker*, 9/3/55, p. 10.

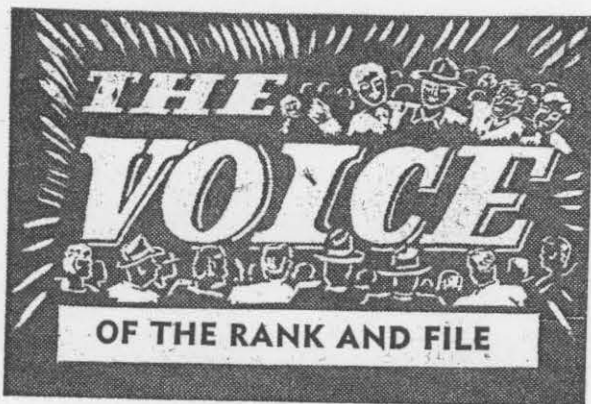
⁸². "71st Annual Convention of the A.W.U.", *The Australian Worker*, 6/2/57, p. 7

⁸³. See Public Works Department Note by Principle Engineer, Water Supply and Sewerage, "Adaminaby Dam: Construction of Embankment", circa June 1955 and related folios, SRNSW: AK474 WS1001/16, op. cit.

⁸⁴. United States Department of the Interior...*Summary Report...*, op. cit., p. 8.

⁸⁵. Main to Hudson, 8/7/55, from Public Works, SRNSW: AK474 WS1001/158, op. cit.

Figure 8; Table, "Points for Ballot Riggers", *The Voice of the Rank and File*, September 1962, p. 1.



Official Organ:
Council for Membership Control of A.W.U.,
C/o Box 654, Broken Hill.
Registered in Australia for Transmission by Post as a Periodical

SEPTEMBER, 1962

Price 6d.

POINTS FOR BALLOT RIGGERS

Point One: When you rig a ballot, give yourself a king-size majority. Your opponent will then find it almost impossible to get a Court Inquiry.

Point Two: Never have a voters' roll! No-one can then check on the "Crookies."

Point Three: Don't publish an analysis of voting returns! It makes it too easy for Job Reps. to detect alterations to ballot papers.

Point Four: Have a ballot box in your office — it is so handy!, Especially when the voting coupons you have pinched, begin to spoil the shape of your pockets.

Point Five: "Appoint" your own Returning Officer! The rank and file can never be trusted to elect the "right" man.

Point Six: Distribute your own ballot papers — and never leave ballot papers on jobs that are certain to vote against you!

Point Seven: When pinching voting coupons, don't tear them off — use a guillotine! A membership ticket without voting coupons looks better that way.

Point Eight: Never mark all your ballot papers the same way! Put in the "key men" and split the rest among the "also rans." A slide rule is handy for this exercise.

Point Nine: If you can't steal enough voting coupons from tickets issued, take them from the tickets that will be "lost" or cancelled! Better still, print your own voting coupons! It's dead easy if you've got a printing press and the right paper. No-one can ever find out!

Point Ten: If your opponents still beat you, get your Executive to declare the ballot null and void! It can then "appoint" you to your position for another three years.

awaited production of electricity from the Scheme--for New South Wales-- was also weighing on the New South Wales Public Works Department.

Even though the financial risks outlined by Hudson appeared "unduly large", Main then became concerned that Hudson may now be able to place "the responsibility on this Department for any delay" and hence "should the Department continue to carry out the work by day labour, the full blame for any delay will rest with this Department whether it is justified or not."⁸⁶ In view of the short term demands for supplying power to his State, he advised his Minister, Renshaw, that the embankment contract, instead of being done by day labour, should now go out for tender. Although conceding to the new regime of work being prosecuted by contractors, the Menzies government and the AWU, Main then reminded Hudson, or hoped that he would now recognise, that payment of bonuses "tend to minimise labour disturbances..."⁸⁷ Hudson was pleased--ecstatic--about such prospects for his own organisation, awaiting "further developments with great interest."⁸⁸

In support of the hitherto rival AWU, the President of the ACTU, Monk, and the Secretary of the New South Wales Trades and Labour Council, King, had concurrently forwarded to Hudson a copy of a resolution. It had been passed by a meeting of unions held in mid June 1955 in order to restrain the Authority from applying to the Commonwealth Arbitration Court for industrial coverage. Under threat of proceeding with a High Court challenge to the validity of the Act, the resolution called upon the Authority to withdraw its claim for a federal award by the 27th of July.⁸⁹ After the momentous 'split' of the ALP during February to April, the loss of a confidence vote in the Cain Labor government in Victoria, and the delicate April compromise in New South Wales backed by Federal ALP support, a compromise had been reached. An AWU-ACTU alliance in defence of a non-sectarian ALP was moving to defend the Snowy power base of the New South Wales AWU.⁹⁰

⁸⁶. Department of Public Works, NSW, Minute by Main, 19/7/55, SRNSW: *ibid.*

⁸⁷. Main to Hudson, 20/7/55, SRNSW: *ibid.*

⁸⁸. Hudson to Main, 13/7/55, SRNSW: *ibid.*

⁸⁹. Monk and King to Hudson, 4/7/55, NAA: A432, 1955/372, *op. cit.*

⁹⁰. For NSW TLC support for the AWU, see Murray, *op. cit.*, p. 268 and Ch. 18.

In a last ditch attempt to gain federal industrial jurisdiction, however, Spooner wanted to put out a 'Cold War' press release against "sabotage"⁹¹ occurring at work sites. After departmental advice, explicit references to the AWU were replaced, although the Cold War rhetoric of maintaining power supplies for the purpose of defence remained: "if Australia is again called on to defend itself" and to "shoulder responsibilities to its allies" were key phrases in his call to patriotism.⁹² Yet, two days after the deadline of the ACTU and New South Wales TLC to stop its High Court action had passed, Menzies decided against pressing the matter. The best way to proceed was not to mention defence in the Agreement in line with the doubts often expressed by Barwick, for one, on the matter.⁹³ The dubious use of defence powers against a now more unified union movement seeking to protect the AWU and ALP, was materialising for Menzies.

Nevertheless, the notorious *Bankstown Observer* or Browne-Fitzpatrick affair, which would see a journalist and publisher jailed by parliament, would result in further allegations against Justice Taylor. The local MHR for Reid, Morgan, was alleging corruption in Bankstown Council. As well as allegations of corrupt practices by a "Mr Big", a "Mr Wig" had allegedly provided classified documents to those accused, allowing them a way of counter-attacking Morgan. Stan Keon, who had now left the ALP to become Deputy Leader of the Anti-Communist Labour Party, then alleged that as part of a war time appointment, Justice Taylor was the source of the documents.⁹⁴ Next to the original front page article in the *Bankstown Observer* which attempted to silence Morgan by accusing him of being part of an immigration racket, was also an article seeking answers from Renshaw. It short, Browne and Fitzpatrick were seeking to implicate not only Taylor, but "NSW Ministers in alleged corruption" especially, it seems, Renshaw.⁹⁵

The whole affair contributed to further confusion within the federal ALP as it was uncertain whether to defend Browne and Fitzpatrick due to the

⁹¹. Collis, B., *Snowy: The Making Of Modern Australia*, Sydney, Hodder and Stoughton, 1990, p. 142.

⁹². Ibid.

⁹³. Bailey to Spooner, 29/7/55, NAA: M1505, 1194, op. cit.

⁹⁴. "Wartime Report on Alleged Frauds Will be Tabled", *SMH*, 7/9/55.

⁹⁵. Green, Frank, "The Punches...I Pulled", *Sunday Mirror*, 26/6/60, p. 12-13. Also see the article which led to the charges, "M.H.R. and Immigration Racket", *Bankstown Observer*, 28/4/55, p. 1 and neighbouring article, "A Question for Mr. Renshaw".

failure by Menzies to allow them legal representation when they appeared before parliament on charges of seeking to intimidate an MP.

Alternatively, the ALP could decide that the attacks were an attempt to smear and intimidate a Labor MP. When the vote was taken, it was a "day of confusion and clashes of opinion within the Labor Party."⁹⁶ In the lead-up to a crucial conference, inter-faction intrigues had been further inflamed. A special conference of the New South Wales ALP, held to determine the States approach to federal intervention against Groupers, then saw a record number of affiliates from all factions attending.⁹⁷

Meanwhile, Hudson continued to argue for interest rate concessions given the irrigation and defence benefits of the Scheme.⁹⁸ More positively, the organisation appointed to review the Scheme was offering some preliminary views. Although Ebasco was predicting a significant fall in thermal production costs, it was suggesting that beyond a 6.3% growth rate, a 10 or even 12% per annum growth which would "increase the basic value of Snowy power by as much as 15%."⁹⁹ Similarly, Ebasco favoured the new generation and transmission possibilities. It preferred a grid with large or base load thermal plant on coal fields remote from the cities, combined with hydro peak power, plus energy interchange possibilities.

Ebasco conceded, however, that the development of the larger boilers for lignite had yet to be proved. The high moisture content of lignite required more engineering. Nevertheless, with innovations from Yallourn 'B', such as pre-drying hoppers plus 'partial separation firing' which separates out the more combustible components to maintain flame stability, in combination with improvements in coal milling or crushing, larger units were built.¹⁰⁰ Crucially for SECV doubts, such units were not possible without significant innovation being required for the larger (Hazelwood power station) boilers a decade or more away.

In short, Victoria remained far from satisfied. Bolte, as the new Premier of Victoria, launched his own High Court challenge, in this case to the

⁹⁶. "Calwell Walked Out Of House Before Imprisonment Votes", *SMH*, 11/6/55, p. 3.

⁹⁷. Hagan, J., op. cit., p. 161.

⁹⁸. Hudson, "Proposed Methods for Financing the Scheme", 31/8/55, NAA: A571 1954/123 Part 2, op. cit.

⁹⁹. Hudson to Spooner, 15/12/55, NAA: CP608 Bundle 2/3, Part 2, op. cit.

¹⁰⁰. See Harvey, C., *Yallourn Power Station: A History 1919 to 1989*, Melbourne, SECV, 1993, ch 7 "Early Problems Burning Brown Coal" & ch 21 "Experimenting with Plant".

uniform tax arrangements. At the time Bolte assumed power, he complained that the amount of tax returned to Victoria was "hopelessly inadequate". By September the system was "iniquitous" and by Christmas eve the policy "compelled" Victoria "to conform to policy dictated by the Commonwealth."¹⁰¹ This called for the filing of a writ against the Commonwealth in the High Court.

The Authority again complained that a lost industrial jurisdiction would affect "the future cost of the Scheme seriously" and continued to press the defence rationale on the government.¹⁰² Spooner was becoming more insistent that concessions from Treasury were warranted to avoid "protracted argument."¹⁰³ Concurrently with Victoria's new writ, however, and sensing the possibilities for delaying an outcome, the New South Wales Works Minister, Renshaw, argued that "it will not be possible" to complete a draft agreement until the Courts ruling on Victoria's application had been examined.¹⁰⁴ Amidst the struggle over jurisdiction and costs, the USBR came forward with its own advice. It now made "strong recommendations" to the Authority for a moderated embankment construction program lest there arise an "inferior job of construction."¹⁰⁵

Then, in a crucial shift, by mid January 1956, Menzies was less than prepared to challenge the AWU action in the High Court "because of the doubts which he felt as to our ultimate success." Menzies and Bailey were now considering compromising with New South Wales. They now felt that "the industrial provisions were not of supreme importance."¹⁰⁶ As Spooner reported to Menzies, New South Wales would "precipitate trouble" if the Government sought agreement before the High Court case.¹⁰⁷ Charges of "sabotage" were again being heard on the Adaminaby Dam site.¹⁰⁸

Determined, however, to continue the battle to end the power of the AWU Hudson and Raggatt thereupon took "some trouble" to find out what was

¹⁰¹. "Commonwealth Cuts States' Claims On Tax Fund by £21m", *SMH*, 24/6/54, "Bolte Attacks Uniform Taxation", *SMH*, 7/9/55 and "Vic Writ on Uniform Tax", *SMH*, 24/12/55.

¹⁰². Hudson to Spooner, 27/10/55, NAA: A432, 1955/372, op. cit.

¹⁰³. Spooner to Raggatt and Hudson, 9/1/56, NAA: CP608/1, Bundle 2/3, op. cit.

¹⁰⁴. Renshaw to Spooner, 25/11/55, NAA: ibid.

¹⁰⁵. United States Department of the Interior...*Summary Report...*, op. cit., p. 8.

¹⁰⁶. Note by Renfree, 12/1/56, NAA: A432, 1955/372, op. cit..

¹⁰⁷. Spooner to Menzies, 16/1/56, NAA: CP608, Bundle 2/3, op. cit.

¹⁰⁸. "Sabotage Allegations as Disputes Threaten Snowy Work", *SMH*, 5/1/56, p. 1.

behind Renshaw's delaying tactics. Continuing to be inspired probably by the legion of allegations surrounding the Browne-Fitzpatrick affair, not least against Taylor and Renshaw, they were eventually unable to point to a "deep plot" or conspiracy.¹⁰⁹ Consequently, the pressure--via Renshaw--that the AWU was bringing to bear to protect its own membership and power base (and the ALP), plus the absence of any substantive evidence against Taylor or Renshaw, was now convincing the Coalition, if not the bureaucrats, that it was time to move on.

At the end of January 1956, in a further important compromise move, Spooner suggested to his colleagues Hudson and Raggatt, that all parties opt for a non-compounding period for the next ten years or, as was soon to be agreed, up until the Scheme was producing 3,000 million kilowatt hours per year.¹¹⁰ Still sceptical, Hibberd reiterated his concerns. In the "absence of any evidence" that thermal power costs would undercut Snowy power (although Ebasco's view was that they could fall steeply), and given that "huge quantities of water for irrigation [would be] thrown in free", Spooner's desire to provide "'concessions' on price" appeared (using one of Spooner's own phrases) "an academic one."¹¹¹ That is, it was a purely political move in response to the pressure being brought to bear by New South Wales. It had given "something in the nature of an ultimatum" that interest be charged at a 3/4 per rate lower than the bond rate and physical lives be adopted for depreciation purposes. Hibberd argued that to "cloak the concession" by substituting simple for compound rates of interest held "grave dangers." It would, in effect, reduce the price of Snowy power by approximately 15%. New South Wales would estimate that these conditions would save the State about 10% over the alternative, Treasury scenario, up to the change over date.¹¹²

With all the changes afoot, Spooner was called to Cabinet to justify what was being proposed. In his draft Cabinet Submission for the meeting, he stated that he feared "the challenges" to the "constitutional validity" of the Snowy

¹⁰⁹. Raggatt to Bailey, 23/1/56, NAA: A432, 1978/7044 Part 5, *Snowy Mountains Hydro-Electric Scheme - Agreement and legal problems*.

¹¹⁰. Spooner, "Cost of Production", p. 4, [attachment to] Spooner to Hudson and Raggatt, 31/1/56, NAA: CP608 Bundle 2/3, op. cit.

¹¹¹ [Draft] Treasury Minute, Hibberd, "Snowy Mountains Authority", 2/2/56, NAA: A571, 1954/123 Part 2, op. cit.

¹¹². NSW Cabinet Minute, "Snowy Mountains Hydro Electric Scheme...", 2/8/57, NSW Premier's Department, SRNSW: 13/10721, 64/1142/B, *Snowy Mountains Hydro Electric Authority - General*.

Act by the AWU. Further, he conceded that in his negotiations with the States "in the closing stages of negotiations some 'horse trading' has taken place and it is for Cabinet to decide whether the net result is acceptable to it."¹¹³ He continued that throughout the negotiations, the States had pressed for interest rates to be set at terms lower than the long term bond rate--3/4% lower when Cahill made his most recent call. Spooner had, however, resisted the precedent of such a concession "even as a quid pro quo for State legislation validating the Commonwealth's constitutional position." Yet, as he had become convinced that "there is no prospect of the States signing an Agreement unless some such concession is made",¹¹⁴ he suggested a compromise.

Two proposals were put to Cabinet: to charge compound interest only after ten years (later amended to when the Scheme began producing 3,000 million kilowatt hours per year) and to depreciate costs over a 70 year period instead of 50 year period. Spooner favoured following USBR financial practice for dual purpose schemes--where the federal government contributes. He suggested that, for the Snowy Scheme, "the water costs £70m"¹¹⁵ which was roughly equivalent to the 15% or so which would be cut from what the States would have to pay. It was also a proportion of what Victoria was claiming it had been denied under uniform tax legislation. Spooner conceded that it was:

not easy to defeat the Treasury argument on this point on logical grounds. But I have no hesitation in recommending that we should make the concession rather than that we should face the future without an agreement with the States.¹¹⁶

Fadden, as Treasurer, put his views. He took up Hibberd's central concern about the implications of concessionary finance for federalist infrastructure more generally. Specifically, Spooner's proposals "tend to cloak the real intention...[they provide] a benefit of about £4m. *per annum*, of indefinite duration, to the two States when the Snowy Scheme is

¹¹³. Spooner, Draft Cabinet Submission, 10/2/56, p. 2-3, in NAA: CP608, Bundle 2/3, op. cit.

¹¹⁴. Ibid, p. 4.

¹¹⁵. Spooner's typed notes for Cabinet Submission (no. 45), p. 4, 21/2/56, NAA: *ibid*.

¹¹⁶. Spooner, handwritten notes appended to p. 10, Draft Cabinet Submission, 10/2/56, NAA: *ibid*.

completed."¹¹⁷ In a comprehensive win for Spooner and the Authority, however, as well as for the AWU, if not for the hard pressed workers, Cabinet decided on the 21st of February, 1956 to set the financial terms largely as requested by them.¹¹⁸ But disagreement and rancour continued between the parties especially directed at Hibberd. For Raggatt, the State electricity commissions had a right to "load their annual costs with relatively heavy depreciation in order to accumulate funds for investment purposes" and to keep their criteria to themselves.¹¹⁹

Soon the stand-off in the High Court abated, at least on the industrial front. In mid 1956, Barwick, Kerr and Watson advised the Commonwealth to withdraw from confrontation, as did the Authority.¹²⁰ The piece-rate work regimes and lack of strikes was also working for the contractors and, with projects coming in under time, also for the Authority. As a sympathetic industrial relations academic characterised the situation, "as far as the Authority was concerned, Judge Taylor's methods had paid off"¹²¹, even as the hard working Hudson commented that this was the time when "the Authority surrendered"¹²² to the AWU.

Increasingly, the Scheme was also projected as heroic, as a project beyond politics. It was difficult to relate Cold War industrial struggles to the cosy deals between the AWU and contractors. It was a concrete bubble, expanding ever outwards, precarious but defiant against entropy, against disordered rock and rivers (figure 9). Within this photographer's cave, it was cool form, a cognate structure sensed by the engineer. But it was also drilled through rock-dust, noise and Cold War institutional rivalries. And as part of these Cold War rivalries, a new institution had arisen. After the 'boiler makers case' which threw into doubt the right of the Commonwealth

¹¹⁷. Fadden, Cabinet Submission, "Commonwealth-State Agreement on the Snowy Mountains Hydro-Electric Scheme", 18/2/56, p. 5, NAA: A571, 1954/123 Part 3, op. cit.

¹¹⁸. Cabinet Submission and Decision, 14&21/2/56, [see blue folder] and [Department of National Development?], "Snowy Mountains Scheme - Proposed Agreement", 3/2/56, NAA: CP608/1, Bundle 2/3, op. cit.

¹¹⁹. Draft letter, Raggatt to Hibberd, circa 9th March 1956, NAA: MP766, 1959/347 Part 4, *Snowy Mountains Advisory Council*.

¹²⁰. Barwick, Kerr and Watson, "Joint Opinion", 9/8/56, NAA: A432, 1955/372, op. cit.

¹²¹. Kleinsorge, Paul L., "Industrial Relations on the Snowy Mountains Project: The Development of a System of Conciliation", *Journal of Industrial Relations*, Vol. 12, 1970, p. 293.

¹²². Quoted in *ibid*, p. 292.

Figure 9; SMHEA official photograph; "Looking downstream towards the surge chamber in Guthega Tunnel" (1955). Reproduced from SMHEA, *A Pictorial Record of the Snowy Mountains Scheme*, Cooma, The Authority, 1999 [?], fig. 76.



76 GUTHEGA
Looking downstream towards
the surge chamber in
Guthega Tunnel.

1955

Arbitration Court to both arbitrate and apply penalties, a separate court was created. Even as the appointment was called "blatant and offensive" and a "political outrage", the former Attorney General, Senator Spicer, was appointed to lead the new Commonwealth Industrial Court.¹²³

Although the predominantly migrant work force took a while to collectively respond, beyond often leaving the Scheme in fear of their lives, this change would allow Bielski to challenge the industrial conditions. The proper election of delegates to the Trades and Labour Council was also important for, as fully bona fide delegates, they could vote for affiliation of the AWU with the ACTU and thus participate in the reformulation of the Labour Movement's migrant policies. It could also reform the AWU itself. This also meant that, in return, Bielski would have to move against members of the AWU hierarchy.¹²⁴

In preparation, Bielski began to develop his views, through his *Australian Worker* column, that Labor must do more to win migrants. With over half a million people becoming eligible for naturalisation and voting rights, the result was "new and varied shapes and forms in the community" and "revaluations, revisions in relationships...a two way process rather than the one sided acceptance of certain forms, habits, standards..."¹²⁵ This two way process also meant that the ALP "has to expect that the New Australians' point of view will attempt to penetrate Labor...the outcome of it could be co-operation and integration."¹²⁶ Long term residents and recent arrivals, both respecting differences, could be changed by the process (figure 10). Bielski also advanced an implied threat:

...the traditional two party parliamentary system of balanced power...may be the subject of drastic reshuffling if migrants refuse to identify their political aims with existing party platforms. More political parties may emerge on the Australian horizon...or the old parties will have to accept some new ideas and new attitudes.¹²⁷

¹²³. d'Alpuget, B., *Mediator: A Biography of Sir Richard Kirby*, Melbourne, Melbourne University Press, 1977, p. 149.

¹²⁴. Interview with Bielski, 8/3/96.

¹²⁵. Bielski, J., "Labor Movement Must Win Migrants", *The Australian Worker*, 21/8/57, p. 11.

¹²⁶. Ibid.

¹²⁷. Ibid.

Figure 10; Photograph, International Club Float, Cooma Festivals of the Snows, 1958. Department of Immigration and Multicultural Affairs Photograph, No. 58/17/13.



Despite him holding these views, H. V. Evatt convinced Bielski to persist within the AWU and ALP. Even though it was an anathema for most union officials, by October 1957, with the behind-the-scenes support of Evatt and other senior figures, Bielski then drew on his organisational skills to convene a large meeting at Sydney Trades Hall. It saw 120 trade union officials attend, representing about 70 trade unions. Eight resolutions were passed which focussed principally on the need for a campaign to explain to migrants Labor's political policies, in their first languages, to counteract conservative campaigns.¹²⁸ Throughout 1957, Bielski had gained considerable support from workers at a range of construction sites, including Eucumbene, for reformed union elections and better migrant educational activities.¹²⁹

At the AWU Annual Conference in late January 1958, Bielski stepped up the campaign to support migrant workers focussing especially upon extending language services.¹³⁰ Walsh seconded the motion, suggesting that workers did not know what safety measures to adopt or laws to observe especially, for example, during the difficult jobs involved in tunnelling.¹³¹ A watered down motion was, however, carried calling for the matter to be merely referred to the Branch executives.

Not unexpectedly, a confrontation then arose between Bielski and Oliver. The resolutions at the AWU annual conference had confirmed the suspicions of the AWU Executive that Bielski was seeking to change the union and that he was a danger to them. In early February, Bielski was called into Oliver's office and then allegedly assaulted.¹³² This was soon followed by an attempt to dismiss Bielski because of apparent neglect of his duty--whilst recuperating!¹³³ After he had recovered, Bielski brought charges against Oliver but these were dismissed. Bielski then began to organise a petition amongst migrant workers against the Executive. The petition signed by 556 members of the AWU sought that the forthcoming

¹²⁸. Bielski, J., "Labor Campaign for New Australians", *The Australian Worker*, 30/10/57, p. 11.

¹²⁹. Interview with Bielski, 8/3/96.

¹³⁰. "72nd Annual Conference of the AWU", *The Australian Worker*, 5/3/58, p. 6.

¹³¹. "Debate on Language Problems Referred to Branch Executives", *The Australian Worker*, 5/3/58, p. 6.

¹³². This account is from an interview with Bielski, 8/3/96.

¹³³. Dodkin, op. cit., p. 109.

union elections, as Bielski put it, be "supervised, controlled and conducted" according to the Conciliation and Arbitration Act rules.

A submission was then made to the Commonwealth Industrial Court by Bielski, alleging that the AWU was "disobeying its own rules in not calling for nominations for delegates to the ALP conferences and Labour Council meetings."¹³⁴ Oliver responded by bringing charges against Bielski of unlawfully possessing "blank foolscap paper and stationary". Bruce Miles, acting for Bielski, protested that the proceedings were issued for the "purpose of destroying the man's character".¹³⁵

Before Justice Dunphy of the Commonwealth Industrial Court, Bielski then maintained that migrant workers "had not received membership tickets after paying union subscriptions and had been denied the right to vote."¹³⁶ Bielski believed that Oliver's election as Secretary to the New South Wales AWU had been, in effect, falsified during the previous years. Union tickets had never been issued and the voting coupons on these tickets had been used by Oliver to vote himself in.¹³⁷ Clyde Cameron was also stepping up his attacks on the "tyrant at the top"--Dougherty--claiming in federal parliament that a few unions "literally control their unions with a rule of terror" by abusing their independent right to make and interpret the rules of the union.¹³⁸ Such a case would also challenge the arrangements between contractors and unions as they traded piece-rate conditions for union access to workers.

Bielski submitted 26 statutory declarations from men working on the Snowy Scheme that claimed that their membership tickets had not been issued even though they had paid their fees. Peter Sartori swore that:

I have not received this ticket yet although I repeatedly asked the Employment Office...The same happened to about 200 men, who stay with me at the East Camp, Cooma. Myself and the others wanted to vote in the

¹³⁴. "Orders For AWU To Show Cause", *SMH*, 20/5/58, p. 11.

¹³⁵. "Prosecution 'Inspired,' Court Told", *SMH*, 3/6/58, p. 9.

¹³⁶. "Orders For AWU To Show Cause", op. cit.

¹³⁷. Interview with Bielski, 27/11/95.

¹³⁸. Guy, Bill, *A Life on the Left: A Biography of Clyde Cameron*, Wakefield Press, Kent Town, 1999, p. 161.

1957 AWU N.S.W. Branch election but we could not obtain ballot papers and the tickets were not given to us.¹³⁹

Men with names such as Albertini, Galassi, Reirsenhofer, Koutsakis and Chene were also affected and were also prepared to make declarations. Bielski also said that he had been nominated for "the position of Federal vice-president and [New South Wales State] branch secretary" in the forthcoming union elections and he wanted all persons "entitled to vote to be able to do so."¹⁴⁰ Dunphy agreed that these matters deserved a hearing before the forthcoming ALP conference in June.¹⁴¹

Consequently, before the Commonwealth Industrial Court, Mr. Isaacs and Mr. Kilduff, instructed by the solicitor, Bruce Miles, appeared for Bielski. Lionel Murphy, instructed by the AWU Labour Law firm of Carroll and O'Dea, appeared for the union. Then, before Justices Spicer (ex-Attorney General under Menzies), Dunphy and Morgan, Murphy soon put the main basis of the AWU's defence; "I do not concede the jurisdiction of the Court...I will be arguing ultimately that the Court has not jurisdiction..."¹⁴² He would explain this during the proceedings. Kilduff then began to develop the case that the AWU was not electing delegates but appointing them and was therefore not calling for elections.¹⁴³

As foreshadowed, however, Murphy objected to the claim by Bielski in his affidavit that he was a duly qualified member of the AWU.¹⁴⁴ The bench supported hearing this claim as it was a matter of "mixed law and fact." Interpretation of the AWU rules could again be relevant. Almost immediately therefore, the question of Bielski's own membership *bona fides* became an issue.

Kilduff sought to turn the attention of the Court to the manner in which the AWU had been appointing delegates to the Trades and Labour Council

¹³⁹. Statutory Declaration by P. Sartori (signed 20/3/58), in *Bielski v. Oliver*; Commonwealth Industrial Court, B No. 12 of 1958, NAA: B208 B12 OF 1958, *Between Jerzy Steve BIELSKI and Cecil Thompson OLIVER and others...*

¹⁴⁰. "Orders For AWU To Show Cause", *SMH*, 20/5/58, p. 11.

¹⁴¹. Spicer, J. A., Court Order (Commonwealth Industrial Court), B No. 11 of 1958, NAA: B204 B11 OF 1958, *Between Jerzy Steve BIELSKI...*

¹⁴². Court Proceedings, 3/6/58, *Bielski v. Oliver*; Commonwealth Industrial Court, B No. 11 of 1958, NAA: B208, B11 OF 1958, *ibid*.

¹⁴³. *Ibid*, p. 23.

¹⁴⁴. *Ibid*, p. 42.

and Labor Party conventions. Kilduff asked Oliver about how the amount of money mentioned on the front of a document related to the apparently extra delegates listed on the back. For Kilduff, this went to the "very heart" of the matter, that the respondents "cannot form their own rules" when appointing delegates. Kilduff was trying to suggest, as Murphy put it, that "there are too few or too many delegates." For Murphy, however, this was a matter "collateral" to the hearing, a view sustained by Justices Spicer and Morgan.¹⁴⁵

Kilduff then tried another tack. He wondered why the amount paid for each delegate to the ALP convention appeared excessive or whether Oliver and Dougherty "are using this particular form of representation for their own ends."¹⁴⁶ Kilduff was seeking to ask why the AWU appeared to be buying off its own delegates. Justice Spicer immediately challenged the question. Similar to the earlier ruling, this matter was deemed outside the reasons given in the Court Order that sought to re-schedule the elections.

Murphy then countered. He asked Oliver whether Bielski was an organiser or a member of the union. Oliver replied that Bielski had not been employed as either an officer or as an organiser for the union; "no, he was not employed as an organiser" but "he was employed on anything on which we could use him."¹⁴⁷ This Oliver reiterated; "Yes. I say yes...Not a bona fide member."¹⁴⁸ Dougherty would later confirm this view. Oliver also rejected the contention that Bielski's 'membership' implied that he had relevant skills.

Murphy then called for the dismissal of the proceedings on the grounds that Bielski was not a member of the union:

...a stranger to the organisation is not entitled to come along here and say that things are being done irregularly...I submit that the evidence here discloses that the claimant is not a member of the organisation.¹⁴⁹

¹⁴⁵. Court Proceedings, 4/6/58, NAA: *ibid*, p. 93.

¹⁴⁶. *Ibid*, p. 96.

¹⁴⁷. *Ibid*, p. 99.

¹⁴⁸. *Ibid*, p. 105.

¹⁴⁹. *Ibid*, p. 118.

Justice Morgan, however, was prepared to hear evidence of Bielski's membership bona fides, based on him having been treated as a member. Kilduff then submitted that Bielski had been employed in relevant trades prior to his appointment (in the Commonwealth Immigration Centre then Printery). The justices agreed that much evidence existed that Bielski had been treated as if a member, such as his appointment to AWU's 72nd convention. For Kilduff indeed, the union was being very opportunistic, if not manipulative:

...this is a question of approbation and then reprobation. There is an attempt...from one side to say 'Oh yes, this situation exists,' and then when it comes up before a judicial inquiry to reject that...[but] the evidence which is before your Honours [on Bielski's bona fides]...is almost irresistible.¹⁵⁰

By the next day, Isaacs, now appearing for Bielski in place of Kilduff, arrived fortified to argue the single matter of Bielski's bona fides for membership. He began by protesting that a technicality should not be the reason for the case being dismissed. Isaacs then presented AWU reports, union newspaper extracts and 27 letters all describing Bielski as "organiser". Isaacs also argued that Bielski was qualified to join the union as the phrase 'usually employed' should be relaxed; "it covers the case of a person wanting to come into the industry, a new arrival from overseas..."¹⁵¹ Bielski's organisational work for refugees in Europe was not directly referred to. Nevertheless:

the Court could very easily understand that the exigencies of the situation might require appointment of some person with a particular capacity, some person with a particular flair for language and so forth-- some person with a particular ability who is not a member but nevertheless whom the Executive think is a good person to act temporarily as an organiser.¹⁵²

Justices Spicer, Morgan and Dunphy reserved their decision until the following Monday when they delivered a split decision. Justice Spicer and Morgan found that Bielski was not a member of the union and thus found

¹⁵⁰. Ibid, p. 144.

¹⁵¹. Court Proceedings, 5/6/58, NAA: *ibid*, p. 183.

¹⁵². Ibid, p. 193.

against Bielski's claim calling for fresh elections. Justice Dunphy found that Bielski was a member of the union but limited this reinstatement to apply only to the election of delegates to the Trades and Labour Council only. As he was in a minority, this decision did not take effect.¹⁵³

In contrast, perhaps in anticipation of future cases and in support of his original decision to allow the matter to proceed, Dunphy offered a strong dissenting judgement, claiming Bielski's membership and official status within the union was "beyond doubt." Oliver's evidence that "I never did" regard him as an organiser Dunphy found "so incredible as to be suspect of bias." Further, it was difficult in such circumstances, to understand why Bielski, "who by reason of his nationality and gift of tongues" and who had been "responsible for enrolling thousands of new members of the union, was to be forced out of the union unless it was for some ulterior reason." It was up to the union in such circumstances to show why the appointment was invalid, not vice-versa, and which was something that the Court itself had a duty to ensure occurred.¹⁵⁴

Bielski, nearly forty years after the trial, maintained that Dunphy had told him that Spicer feared that the AWU could fall to the communists if Bielski won the trial.¹⁵⁵ The left of the ALP was seeking at the time to replace Oliver as senior Vice President of the State ALP, to be effected at the forthcoming State conference.¹⁵⁶ If the court allowed Bielski's call for fresh elections, Bielski could have assisted this outcome. Ironically, Spicer was forced back into supporting the AWU although not Bielski's union membership and the Snowy workers (figure 11).

Clyde Cameron would soon rejoin the fight against "tyrants" within the AWU and to reform the union (figure 12). Bielski had had enough however, especially after having been shot at by an unknown gunman firing through a window Bielski had just stepped away from.¹⁵⁷ Bielski was also having to appear before the Central Court on charges of having stolen stationery and paper from the AWU with Oliver claiming that Bielski "was a bit of a half-baked intellectual." Oliver also estimated that 25% of about

¹⁵³. Court Proceedings, 9/6/58, NAA: *ibid*, p. 217.

¹⁵⁴. "Bielski v Oliver and ors.", in Malor, Jean (ed.), *The Federal Law Reports*, 1956-1961, Sydney, Law Book Co., 1961, pp. 269-70.

¹⁵⁵. Interview with Bielski, 27/11/95.

¹⁵⁶. "Left Wing's Bid for A.L.P. Post", *Daily Telegraph*, 11/6/59.

¹⁵⁷. "Shot fired at A.W.U. ex-official", *Daily Telegraph*, 27/8/58.

Australian Workers' Union

1951-1952 N^o 11429



N.S.W. BRANCH

MR. J. S. BIELSKI

of 5 KUNNERONG RD. KINGSFORD N.S.W.

is entitled to all the benefits of Membership and protection of the Union while loyal to the principles for the year ending Sept. 30, 1952.

This ticket must be produced to the A.W.U. Rep., Organiser or any other authorised person on demand.



Worker Print,
Sydney.

Issued at Sydney
By J. Riecki Date 10/6/51

MEN'S TICKET 35/-

Members must renew in the first shed or on the first pay day after the Annual Convention.

N.S.W. BRANCH
E N^o 11429
1951-52
Attach securely to Ballot

N.S.W. BRANCH
A N^o 11429
1951-52
Attach securely to Ballot

N.S.W. BRANCH
F N^o 11429
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B N^o 11429
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N.S.W. BRANCH
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1951-52
Attach securely to Ballot

Figure 11; Court Exhibit V, Original 1951 AWU membership ticket of Bielski, attached to, *Bielski v. Oliver*; Commonwealth Industrial Court, B No. 11 of 1958, NAA: B208, B11 OF 1958, *Between Jerzy Steve BIELSKI and Cecil Thompson OLIVER and others...*

Figure 12; Cartoon by anon, "When you're on a good thing, stick to it", *The Voice of the Rank and File*, February 1961, p. 3.



"When you're on a good thing, stick to it!"

8,000 AWU members in NSW were New Australians.¹⁵⁸ On the 5th of December the charges would be dismissed.¹⁵⁹

Concurrently, Bielski protested to the ALP Committee of New Australians that unions offered "no real protection" to migrants and that the ALP was treating migrants as "second class" citizens. Senator Ormonde and the State Assistant Secretary of the ALP, Tony Mulvihill, desperately counselled against any precipitate action, fearing electoral repercussions.¹⁶⁰

However, rather than staying within the conventional union movement to fight, the outraged Bielski was moving on. He had decided to form his own migrant worker's union announcing in late October, the formation of the New Citizens Council (NCC).

Its objects covered a wide range of matters consistent with a social or political organisation and was set up initially as a protest against the failures of the AWU, the ALP and the 'Liberal Party backed' Courts. Against probable charges of playing a 'race card', it emphasised universal human rights, that anyone, from whatever background, could expect "protect[ion]...against discrimination and victimisation" and sought to advance "freedom and civil liberties".¹⁶¹ With its companion organisations of the Industrial Workers Union (IWU), a more formally or extensively specified union¹⁶² focussing particularly upon industrial matters, and the Interpreters Institute, a range of hitherto unrepresented occupations could be unionised and the dangers of language barriers better mollified.

From 1959, a fierce campaign then erupted against the NCC. The New South Wales Trades and Labour Council--where the AWU was again influential--began by mootng an investigation into the NCC.¹⁶³ The NCC soon replied. It stood for a broad range of ideals but, basically, "we believe in free trade unions...free of racketeering, free of Dave Becks and Jimmy Hoffas."¹⁶⁴

¹⁵⁸. "Union Officer 'Distrusts Intellectuals'", *SMH*, 18/7/58, p. 9. Also see "Union Man Denies New Australian Threat To His Job", *SMH*, 5/11/58, p. 16.

¹⁵⁹. "Former Union Organiser Discharged", *SMH*, 5/12/58, p. 5.

¹⁶⁰. Reid, Alan, "New Aust. group in ALP row", *Daily Telegraph*, 1/10/58.

¹⁶¹. "Rules of the New Citizen Council" (undated, circa 1959), NAA: A1533, 1959/1223, *New Citizen Council*.

¹⁶². See "Rules of the Industrial Workers' Union of Australia", (undated), NAA: *ibid*. It applied for registration under the same Act as the NCC on the 3/10/58 and was granted registration on the 23/3/59.

¹⁶³. "Migrant Union Inquiry", *Daily Telegraph*, 15/6/59.

¹⁶⁴. "Unions Reply", *Daily Telegraph*, 15/6/59.

Then the 'White Australia' *Sunday Mirror's* headline for its leading front page article in late June 1959 announced 'FOREIGN THREAT!' and began to expand on the matter. It was "a 'foreigners only' industrial organisation" and was "a direct threat to Australian's working conditions and way of life generally" with potential to be a "force with industrial and political aims completely alien to Australia's."¹⁶⁵

Then in a way that continued the concerted nature of the campaign, Monk, the President of the ACTU, took a "very serious view" of "such type of nefarious activity"¹⁶⁶ due to its implied--for Monk--exclusionary or even racist basis. Even though it had been the AWU which had been screening migrants and sacking Bielski, the New South Wales Minister for Labor and Industry, Maloney, then announced that the Act would "be amended to prevent registration of New Australian Organisations as trade unions."¹⁶⁷ The New Citizens' Council was specifically targeted and followed "a decision by the NSW Labour Council to investigate the NCC and charges by union leaders that it was 'dangerous' and 'industrially dishonest'." The trade union movement itself was moving to ban the union.

Throughout the last half of 1959 and into 1960 the matter was hotly contested. The *Sydney Morning Herald* had also become confused. Given the controversy, it now advised that migrants "should be thinking of themselves as Australians, not as 'New Australians'"¹⁶⁸ (figure 13). Then in October it was announced that the State government was seeking to ban the "sinister" party/union by legislation.¹⁶⁹ The NCC thereupon threatened to organise a Sydney to Canberra protest march of supporters to highlight the right to form a trade union and to protest the treatment of migrants as mere "work horses."¹⁷⁰

Further controversy ensued. With guidance from Clive Evatt and Jerzy's wife, Joan Bielski, in a desperate and controversial move, the NCC decided to

¹⁶⁵. "Foreign Threat!", *Sunday Mirror*, 21/6/59, p. 1.

¹⁶⁶. See Monk in "Harmful to Migrants" [referenced to be from *Sunday Mirror*, 21/6/59] in AWU, *Beware of the New Citizens Council*, Sydney, AWU, 1959, NBA: E158/12/1 [AWU collection]

¹⁶⁷. "NSW To Bar Migrant Trade Unions", *Canberra Times*, Tuesday 23/6/59.

¹⁶⁸. "New Australians and Unions", *SMH*, 25/6/59 [Editorial]

¹⁶⁹. "Pseudo Union", *Daily Mirror*, 2/12/59.

¹⁷⁰. "Protest March Threats", *The Sun-Herald*, 6/12/59, p. 23.

Figure 13; Cartoon by Tighe, 'Ah, Mrs 'Arris -- Dis is what I Call Da New Australian!', *The Bulletin*, 21/10/59.



protect itself from further legal attack by becoming a political party. One commentator, Peter Coleman writing in *The Observer*, then came to the NCC's and Bielski's defence. He suggested that "it is a bit late in the day for Labor and Liberal politicians to start complaining when it is their narrow assimilationist policies or their indifference that has goaded the New Australians into forming this new party."¹⁷¹ That is, "Australia's Uncle Toms", as the article was entitled--with probable reference to Dougherty and his political supporters--were refusing to partake in any 'two way' dialogue or to recognise quickly enough the particular concerns and fundamental rights of fair representation for migrants.

Eventually, the NCC provided an important service for getting migrant workers out of their many and varied difficulties. It dealt with unemployment, marriage difficulties, discrimination of all sorts, finding ways around housing shortages and around restrictive council by-laws which often prevented migrants from building their own homes. The NCC also followed up compensation claims inadequately settled by main stream solicitors. Coming to perform tasks not undertaken by mainstream unionism, problems of adequate recognition of trade qualifications was also an important aspect of the work done by the NCC. Bielski was gradually recognised as an adviser or source of reliable advice for recommendation. He conducted a trade recognition committee and if he thought that a worker had proper papers and sufficient experience, the worker would be accepted. Bielski would also come make representations to Ministers and Government Departments to facilitate the bringing of migrant relatives to Australia.¹⁷² Cheap travel or chartered flights were also developed (figures 14 & 15). Unfortunately however, further pressure would see him end his role as a maverick for migrants by the end of the 1960s (figure 16).

Finally, what can be concluded from these interrelated developments of the 1950s? The workings of federalism, aimed at achieving changes to the Tantangara, Tooma and associated Upper Tumut projects, saw pressures flow through the construction program and thence the migrant workers of the Scheme primarily. Initially, Hudson and then Spooner had been optimistic that the compromises reached with Conde and Elcom, which, although not pleasing the SECV, would allow for Agreement to be reached. In the Cold

¹⁷¹. Coleman, P., "Australia's Uncle Toms", *The Observer*, 5/3/60, p. 5.

¹⁷². Interview with Bielski, 10/3/96.

Figure 14; Cartoon by Unk White, "Road Closed New Australians at Work/'It's his turn to boil the billy', *Bulletin*, 26/9/51, p. 16.



Figure 15; Advertisement from *The New Citizen*, October-November-December 1969, "Special Flight for Christmas and New Year."

Special Flight for Christmas and New Year

Because the Australian authorities have not yet approved the introduction of our own aircraft, for which so many members have been waiting, we have in the meantime arranged a **SPECIAL FLIGHT** by **JET AIRCRAFT** at charter concessions for the convenience of those members wishing to travel to Europe during the Christmas holidays period.

The flight by jet aircraft will

DEPART SYDNEY on MONDAY,
15th DECEMBER, 1969,

ARRIVE in VIENNA on TUESDAY,
16th DECEMBER, 1969,

ARRIVE in LONDON on TUESDAY,
16th DECEMBER, 1969.

The return flight also by jet aircraft will

DEPART LONDON on FRIDAY,
23rd JANUARY, 1970,

DEPART VIENNA on FRIDAY,
23rd JANUARY, 1970,

ARRIVE in SYDNEY early in the morning on
SUNDAY, 25th JANUARY, 1970.

Members wishing to participate in this flight are requested to forward **immediately** to this Council their name, address and telephone number together with a deposit of \$80.00 (children under 12 — \$40.00). All deposits must be forwarded to the Council not later than on 18th October, 1969. Further particulars will be sent by letter to those applying.

Figure 16; Cover photo of Bielski, "Bielski and his Migrants: Trouble Shooter and Maker", *Nation*, No. 38, February 27, 1960.

NUMBER 38 FEBRUARY 27 1960 PRICE 1/6

NATION

MR. BIELSKI AND HIS MIGRANTS

*Trouble Shooter
and Maker*



MR. J. S. BIELSKI.

*Press and the
Royal Baby • Mr
Santamaria replies*

AN INDEPENDENT JOURNAL PUBLISHED FORTNIGHTLY

War climate of mid decade, however, amidst shifting geo-political forces, other corporate interests were in play. As the Authority remained determined to achieve the long term goal of an uncompromised peak power design, they had to compromise with Conde. With delays then altered and intensified construction programs in the offing, pressures mounted on the industrial front. Consequently, Hudson remained keen to gain a federal industrial jurisdiction. Even as the cost advantages of piece-rate methods materialised for Hudson, he remained determined to move his work force to the cheaper jurisdiction.

This aggravated Cold War rivalries. Seeking to force the AWU out of the New South Wales jurisdiction threatened to prevent access to the sympathetic jurisdiction under Justice Taylor. Taylor himself appeared to be under attack on at least two occasions and attempts to smear the New South Wales Minister of Public Works, Renshaw, arose as Menzies and the Groupers sought to end the power of the AWU. The AWU, or Dougherty and Oliver primarily, were in the middle of a battle royal with the New South Wales Groupers who were a threat to their autocratic control of the AWU and, hence, to a favourable outcome of the split for the ALP.

The AWU was happy to disenfranchise workers for the purpose, it seems, of shoring up its own regime, perhaps by buying off delegates to broader union bodies, by keeping voting coupons, and by doing deals with the contractors to protect a 'membership' base. Large US contractors in particular, whose main concern was to avoid having the rate of work and profits reduced, appeared to have co-operated with the AWU to ensure the piece-rate work regime remained well supported by the AWU--the non-Communist union on the Scheme.

The migrant workers were represented by, amongst others, Bielski, an AWU organiser. Having spent much of his formative years fighting in Spain and northern Europe and then spending his 'university years' at Auschwitz, he was not as polished or free of personal antagonism as some may have preferred but, supported by his wife and legal advisers, he was capable of significant "cultural reflexivity."¹⁷³ Prior to but especially consequent to Auschwitz, he saw life--and politics--in machiavellian, dog-eat-dog terms and was just as inclined to fight. He asserted and promoted industrial and

¹⁷³. Cope, B. and Kalantzis, M., *Productive Diversity*, Sydney, Pluto, 1997, pp. 152-3

legal rights of migrants and used his diverse cross-cultural skills through his journalism, organising and negotiating skills to pioneer migrant friendly unionism. Although criticised by both sides of politics, as most chimed together in support of the new methods and protected themselves by failing to reform industrial conditions, he could sense what was absent from the deals of Cold War. He relished attacking the powerful and gave migrants a respected voice.

In the process, not least by representing the concerns of Snowy workers, his power base grew. It grew to the point of almost up-ending the AWU power clique, not long after its leadership was threatened by the Groupers. The court took a narrow view of the matters at stake, choosing to ignore the matters of procedural fairness within the AWU, which Bielski's legal team emphasised. As such, the outcome arguably lacked natural justice and Bielski's claim, along with those of many Snowy Scheme workers, failed. Indeed, if it were not for the paradoxical or even contradictory defence of AWU autonomy by the court, Bielski stood to become a significant figure in mainstream unionism. He offered to remake union responses to migrants ten years or more before the practical issues, which he had long tackled, really became important for the ACTU.

With regard to work practices of the 1950s, a Chifley-style, more cross-culturally adept construction regime, with an early and sustained focus on safety followed by an openness to migrant concerns, had been lost. The competitive, piece-rate dangers of the 'efficient' new contractors being forcibly promoted by a corporatist AWU, Menzies and, even more arduously, by Hudson were foremost. Greater rates of pay may have enabled some migrants to save for a stake in their new homeland, but many would leave as they realised the risks they were facing within the production-line of the mine.

In the frenetic if often stalemated race to gain various upper hands, opportunities for the cultivation of local skills, for a local engineering company via co-ordinated, local planning, management and training possibilities, had been compromised as most conceded to the exploitative economics of the new contractors. Specifically, Allied Constructions had been nearly wiped out. More happily, however, some engineering training occurred, albeit by way of justifying and facilitating the USBR planning and hence new contractor involvement (also see previous chapter). From

1958, the Thiess company from Queensland won contracts to build much of the Tooma project. As these originated from an AWU strong-hold, the contracts would be for US style, piece-rate (corporatist union) work practices. These issues and the extent to which local work place standards--for both engineering and labour were affected such as via accommodation conditions--deserves much further research. Overall, a modest, staged approach to building Eucumbene, favoured by the Department of Public Works, although threatening the completion of the 'full' Scheme and/or returns on investment, may have led to a better quality of outcomes.

The crossed purposes of federalism for this Commonwealth financed yet State legalised design change continued a difficult process of determining outcomes, especially in the context of post-war opposition to uniform taxation. It was really the willingness of Fadden, Cabinet and Menzies to leave Hibberd to fight it out with Hudson and Spooner, which placed inordinate strains on the whole process. Only once the Scheme had been well and truly put in train were they prepared to offer financial relief and then only with two High Court cases looming. Little, if any, agreement seems to have arisen to place the financial dealings of both the States and Commonwealth electricity commissions on an agreed, let alone open basis, to prevent cost shifting. Consistent with the now chronic strategy of delaying open discussions on this large and complex project by way of seeking to retain control, Cabinet was unwilling to make any Agreement before things appeared relatively settled and the matter then forced.

Spooner was left in the middle of a protracted federalist wrangle, fired by a willingness on the part of governments to introduce US-style 'contracting out' practices. Ironically, however, such practices were supported by the AWU as it favoured piece-rate work regimes. The fundamental issue for the union was not work practices but union numbers as its incentive policy meshed with the consortia to advantage its strength and to protect itself from the Groupers. The institutional integrity or independence of the industrial courts was also questionable as they faced the strains of Cold War. Again, therefore, given the difficulties of the Agreement process and the inter-state rivalry of system builders, many of the strains were ultimately passed on via the delays, Cold War rivalries and industrial deals, to the migrant workers themselves, over 120 of whom were killed, ultimately, in industrial accidents on the completed Scheme.

Chapter 6: Enclosing Circles of the Basin.¹

Unlike much of the previous history of the Scheme, the next major design change, to the Eucumbene-Geehi tunnel, represents a partially successful if contradictory challenge to the dominant, post-war, 'full utilisation' water planning ethos. Playford, as Premier of South Australia, would soon challenge the simple quantitative paradigm with his concerns about falling riverine water quality. Consequently, he would ensure that water could not flow from the Upper Murray (Geehi) catchment to the Upper Tumut catchment. Even though the new interconnecting tunnel would join the three major catchments and allow water from the Upper Snowy to be diverted to Eucumbene and thence to the Tumut catchment, Murray water would remain in its catchment. At the same time, however, indigenous heritage and non-quantitative indigenous claims to water, with their own, if implicit, altered planning emphases, continued to be neglected.

When we compare settler and indigenous resource-related histories of alpine occupation, some broad parallels become apparent. If settler society celebrated alpine mastery in Paterson's *The Man From Snowy River*, so too, over the ages, Aboriginal heritage has valued and mythologised the region. In August 1844, for example, fragments of a Creation Story of the Snowy River were told by "Maneroo" (Monaro) Aborigines, from the "Biggah" (Bega) and other groups. It was recorded in broken phrases by George Augustus Robinson, the Chief Protector for the Port Phillip Aboriginal Protectorate, and recounts the movement of the moon and a 'water mole' or, perhaps, a platypus:

The Moon made the rivers, took a large quantity of sea water to the mountains beyond Maneroo, ie Snowy Mountain, on its journey among the mountains it was scented by the Water Mole which smelt the water when the Mole rested. The Moon went a long long way and the Water Mole still tracked on and finding the Moon asleep struck a yam stick into the water, where it gushed out and formed the river, and the Moon was thus 'kubbah big sulky'.²

¹. This chapter has gained much from conversations with Wayne Atkinson, Paul Reed, Albert and Rachael Mullet, Henry Reynolds, Vince Bulger, Ozzie and Ben Cruse, Mike Young, Chris Allan and Tamsin Donaldson.

². Clarke, Ian D., *The Journals of George Augustus Robinson, Chief Protector, Port Phillip Aboriginal Protectorate*, Vol. 4, Melbourne, Heritage Matters, 1998, p. 174.

In hunter-gatherer Aboriginal societies, knowledge of and an ethical relation to the land is recounted through lyric myth and ritual. The terrain directly affected by the construction of the Snowy Scheme itself is the heritage of Aboriginal peoples (figure 1).

It is the land of the Ngarigo and neighbouring tribes such as the Walgalu and Ngunawal to the north, the Jaitmatang to the west, the Yuin to the east and the Bidwell to the south (and of the Snowy River Valley) or the Kurnai including the Krauatungalang (inhabiting the lower Snowy) of East Gippsland. These Aborigines, possibly part of a broader, highland 'federation' of tribes, had originally moved into the highlands as long as 21,000 years ago with numbers increasing 3000 years ago possibly because of the harvesting of the aestivating Bogong moth.³

As with much of the detail of indigenous occupation of the Alps, evidence of when exploitation of the moth began or from when occupation itself arose is far from certain. Kamminga anticipates evidence of occupation from as long ago as before the last ice age.⁴ Perched above the Snowy River, the significant Cloggs and New Guinea caves reveal evidence of human occupation as far back as the most recent glacial period. A sort of "general contact and co-operation" apparently existed between the Ngarigo and neighbouring tribes, although enmity seemed to exist between the Djilamatang and the Ngarigo.⁵ The Ngarigo people were often proud and independent, seen by other Aborigines (and as translated by Lhotsky in

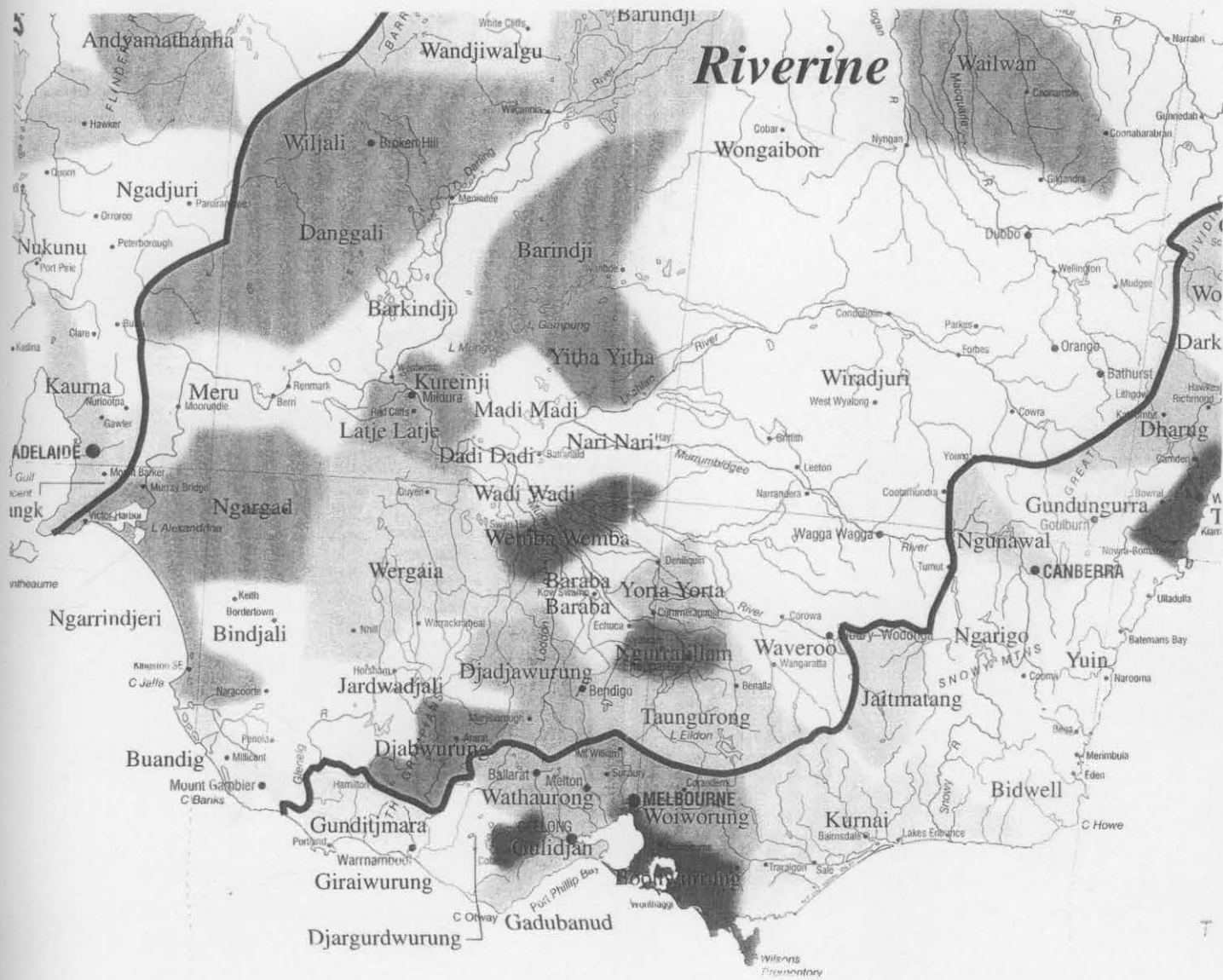
With thanks to Mike Young of the NSW National Parks and Wildlife Service (Jindabyne) for drawing this story to my attention.

³. Horton, David (General Editor), *Encyclopaedia of Aboriginal Australia*, Aboriginal Studies Press, 1994, p. 783 and Flood, Josephine, *Moth Hunters of the Australian Capital Territory: Aboriginal Traditional Life in the Canberra Region*, Canberra, J. M. Flood, 1996, p. 7.

⁴. Kamminga, Johan, "Aboriginal Settlement and Prehistory of the Snowy Mountains" in Scougall, B (ed), *Cultural Heritage of the Australian Alps: Proceedings of the Symposium Held at Jindabyne, New South Wales, 16-18 October 1991*, Canberra, Australian Alps Liaison Committee, 1992, p. 114ff. Also see Johnson, Ian (et al), *Kosciusko National Park Baseline Heritage Study 1991 (Aboriginal Sites)*, Sydney, NSW National Parks and Wildlife Service, 1992 for a discussion of research.

⁵. Gardner, Peter D., "Aboriginal History in the Victorian Alpine Region", in Scougall, B (ed), *Cultural Heritage of the Australian Alps: Proceedings of the Symposium Held at Jindabyne, New South Wales, 16-18 October 1991*, Canberra, Australian Alps Liaison Committee, 1992, p. 92.

Figure 1; South eastern Australian map segment from Horton, David, "Aboriginal Australia" (map), Canberra, Australian Institute of Aboriginal and Torres Strait Islander Studies, 1994.



1834) as being a "wild tribe"⁶, and inter-tribal fights were common.⁷ According to Gardner, "Europeans introduced new elements [such as scarcity of resources] which probably made these clashes more frequent and severe than in former times."⁸

Only sparsely populating the harsher terrain, the Ngarigo occupied these regions with varying altitude depending on the season, although Jindabyne Valley may have been occupied throughout the year.⁹ Other scholars think this altitude was too high for winter camps.¹⁰ For the Aborigine Max Harrison, the Snowy Mountains, except when the bogong moths abounded, were also regarded as a "no-man's land."¹¹ Nevertheless, alpine sites have been found at Perisher Gap, 1830 meters above sea level. With its greater access to sunlight, the southern side of Thredbo Valley was also occupied.¹² Indeed, this valley exhibits an "abundance of prehistoric sites" and possibly formed a major route for Aborigines on their way to moth-hunting outcrops.¹³

Given this familiarity, the very acts of 'discovering' the interior by Europeans involved many Aborigines acting as guides and helpers using their intimate familiarity with the land. For the Basin itself, Thomas Mitchell's explorations of the Murray-Darling River System in 1836 drew heavily upon the experience of a Bathurst Aborigine, John Piper.¹⁴ During preparations for Sturt's expedition of 1844-45, an Aboriginal Toonda drew "a plan of the Darling for 300 miles, also of the Murray a good distance both above and below its junctions."¹⁵ On the other side of the Alps, Gippsland explorers, McMillan and Strzelecki, were also greatly assisted and perhaps even saved from death.¹⁶

6. Seddon, G. *Searching for the Snowy: An Environmental History*, Sydney, Allen and Unwin, 1994, p. 125.

7. Kamminga, op. cit., p. 108.

8. Gardner, op. cit., p. 96.

9. Seddon, op. cit., p. 115.

10. Kamminga, op. cit., p. 101-2.

11. Max Harrison, transcript summary of interview, interviewed by Sue Wesson, 30/5/94, *Australian Alps Oral History Project 1994*, unpublished report, 1994, p. 56.

12. Kamminga, op. cit., p. 106.

13. *ibid*, p. 109.

14. Reynolds, Henry, *With the White People*, Ringwood, Penguin, 1990, p. 5.

15. *Ibid*, p. 15

16. Gardner, op. cit., p. 96.

By earlier this century, however, often as a result of the devastating affects of small pox as well as venereal disease, tribal Aborigines of the Monaro Tablelands, the Snowy Mountains and of the south-east highlands themselves--including the Ngarigo--had been largely displaced from the upland regions of the Australian Alps. Further, "undoubtedly many Aborigines were killed by settlers",¹⁷ although, importantly, they did not disappear altogether.¹⁸ One such massacre was reported by Robinson, who believed that such indiscriminate reprisals for sheep stealing amounted to "barbarous justice."¹⁹ (figure 2).

For artists such as Arthur Boyd, the social inter-actions were also accompanied by identity crises, often destructive of an indigenous sense of self worth. Elwyn Lyn reviewed, in 1958, the 'Love and Death of a Half Caste' series of paintings by Boyd, describing them as:

a fantastic and symbolical presentation of the complex of emotions associated with a blackman's marriage to his half-caste bride. To love a half caste is to aspire to love a white; to marry her is to affront residual tribal feelings. Only when the blackman is dead does the vision of a white bride cease to haunt the pictures as a rival of the half caste. The main source of fantasy in these paintings is the blackman's ambivalence; from this comes the ambiguity of the symbolism, the mixture of whimsy and horror, of harshness and charm.²⁰

Similar emotions arise as competing mythologies of land and water play across a stark form. In Boyd's unsettling depiction of a figure upon life-giving waters, amidst deathly colours for both indigenous and settler societies, the ancient landscape was a place of contortion and the angst of propitiation (figure 3).

Competition for access to water, beyond the now predominant, 'conservation as full utilisation' approach, was also a struggle between non-Aboriginal communities. By the late 1950s, with dam construction booming around the Alps, qualitative water rights issues were a matter of

¹⁷. Kamminga, op. cit., p. 103.

¹⁸. Gardner, op. cit., p. 93-4.

¹⁹. Clarke, op cit, p. 53-4.

²⁰. Lynn, Elwyn, "Chagall Goes Native: A Sydney view of Arthur Boyd's paintings", *Nation*, October 11, 1958.

Figure 2; Map, "Other Massacre Locations--Gippsland" in Gardner, P. D., *Gippsland Massacres: The Destruction of the Kurnai Tribes 1800-1860*, Ensay, Ngarak Press, 1983, p. 90.

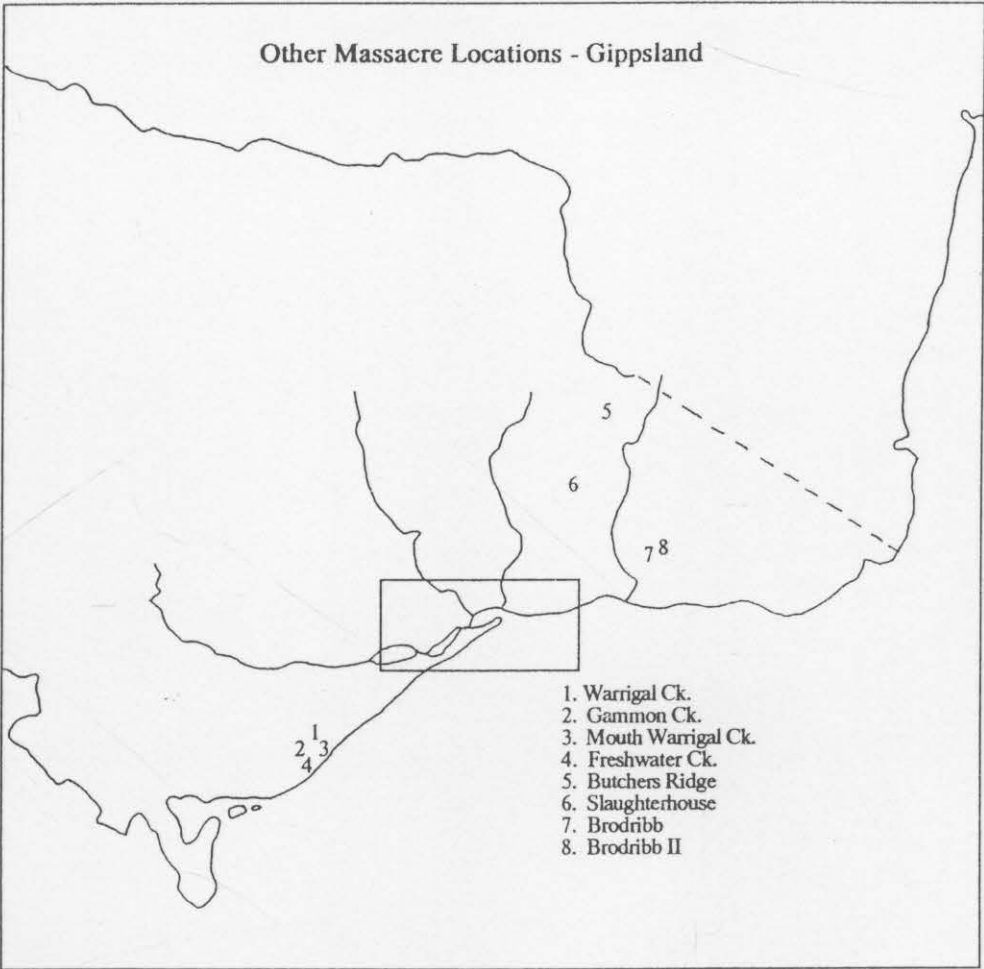


Figure 3; Painting by Arthur Boyd, "Figure in a Landscape (Nude Washing in a Creek)", 1961, Plate 98 in Pearce, Barry, *Arthur Boyd Retrospective*, Sydney, Art Gallery of New South Wales, 1995, p. 114.



98 **Figure in landscape** (Nude washing in a creek III) 1961
oil, tempera on composition board 160.0 x 183.0
signed l.r.

serious concern for those at the other end of the Basin. Adelaide and its expansion relies heavily upon the lower Murray for much of its water supply. The quantity *and quality* of the water and hence its source, route and manner of arrival to South Australia were soon to become intensely contested.

Since February 1956, Playford, the South Australian Premier, had expressed disquiet as to whether his State's interests were being adequately protected.²¹ He assumed that because the Scheme was being financed out of Commonwealth revenue--or so he suspected--South Australia could expect a share of the *extra* water flowing into the Murray, especially under the River Murray Agreement.²² This agreement controlled water availability during times of plenty and during periods of declared restriction, or drought. Latterly, South Australia was entitled to three thirteenths or about 23% of the flow, a fixed proportion. Under normal flow conditions, it was entitled to a yearly minimum quantity of water, or broadly, enough to fill Lake Victoria--from where most in South Australia obtain their water supply--and such as to maintain specified, monthly flows. Hence, if diverted water was deemed to be *Murray* water, South Australia could claim more water during the critical period of (declared) restriction.

Yet the quality of water and its cyclic or seasonal advantages for renewing the brackish water in Lake Victoria was not recognised by the River Murray Agreement. The major philosophy of development in the Basin--full utilisation--was focussed more on quantitative outcomes rather than qualitative measures. Without a formal copy of the proposed Snowy Agreement, Playford could do little to substantiate his fears that his State would be paying for some of the Scheme and was being prevented from influencing outcomes. Menzies was also resisting any claim by Playford. Indeed, it would take ten months and another approaching settlement between the three upstream governments for South Australia to make another major move. The interim saw the parties haggling over uniform taxation and interest rates (see previous chapter).

Importantly, however, Aboriginal relations to land were also at stake. Aboriginal landscape was brought forth by ancestral beings, whether

²¹. "Snowy Plan Threat by S.A.", *Daily Telegraph*, 2/2/56.

²². Playford to Menzies, 27/2/56, NAA: A1209, 1956/1872 Part 1, *Snowy Mountains Hydro-Electric Scheme - Agreement with the States*.

human or plant or animal or 'natural' beings, by travelling across the land and imbuing it with action and meaning. Long journeys across country tell of epic struggles involving various human emotions. Indeed, this knowing may also outstrip modern scientific knowledge and can include events even of ancient geographic times. Events, for example, as retold by Aboriginal dreaming stories from 30,000 to 8,000 years ago. That is, such accounts may also include "stories about ancient and large-scale events such as rising sea levels and changing river courses..."²³

One such change saw the Cadell Tilt block rise just north of today's townships of Echuca and Moama and saw the Murray and Goulburn rivers change course. Running north across today's usually quite flat landscape between Moama and Deniliquin is a gentle fold or drop in the landscape of about 12 meters.²⁴ Both the Murray and Goulburn rivers once flowed across this line to a confluence further west but, as the land rose, the Murray headed north and the Goulburn deviated south, both flowing around the uplifted terrain. The Edward River which now flows into the Murray via Deniliquin is this old Murray water course and forms an 'anabranh' of the Murray as it leaves and then flows back into the river. Large lakes were formed behind the fault. The area, still today, contains lakes--the Barmah and Moira Lakes being the largest. The Barmah Forest, with its large stands of red gums, also evolved to be seeded and sustained by the cycle of winter floods. These events from thousands of years ago are retold as part of the Yorta Yorta's Biami dreaming. Aboriginal dreaming recalls when this land of the Yorta Yorta clan--and later in the area of the Cumerangunga reserve--was subject to a large flood which saw the Murray again cut south, to rejoin with the Goulburn. It then resumed flowing west leaving the Edward River as its anabranh which also reduces the size of the Murray around Echuca.²⁵

For the riverine terrain, other Aborigines also tell a lengthy and complex story of an attempt to spear a Murray Cod. Successive attacks beginning at a water hole led to the fish fleeing "making the channel which became the

²³. Goodall, H., *Invasion to Embassy: Land and Aboriginal Politics in New South Wales, 1770-1972*, Sydney, Allen and Unwin, 1996, p. 5.

²⁴. Coulson, Helen, *Echuca-Moama: Murray River Neighbours*, Red Cliffs, Sunnyland Press, 1981, p. 134-8.

²⁵. Conversation with Wayne Atkinson, May 1996.

Murray river."²⁶ Further myths for the Aborigines of the lower Murray tell of the cod being followed by Ngurunderi who

followed the great Murray Cod down the River, poling his canoe. The sound of the canoe pole frightened the Cod and as a result it swished its tail, making the bends of the River; the wash of the water went over its banks, forming swamps.²⁷

By spearing then cutting up the fish and throwing parts of it back into the water, all the fish of the river were also made. Similarly, for Ella Anselmi of Yorta Yorta, the creator of the Murray was Biarni, forming the rivers via the embodiment of a snake; "the old lady walked along with a stick and the snake followed her and made the rivers and streams."²⁸

As well as the cosmological schema, describing how land and people came to be, other stories also tell of what to do, for example, when flowers bloom or seasons change. For the often mobile bands moving through the land according to seasonal rhythms, knowing which lands had surpluses at different times was crucial. Aboriginal stories tell when it was time to leave the mountains, after hunting for moths, for example. As recounted by Eddie Kneebone, a Pangerang man from North East Victoria, the spirit of the mountain would sleep during summer under the warm sun. But with so many Aborigines moving around the mountain, by Autumn the spirit would be woken. Mists rising from the mountains would signify the rising of the spirit. Soon it would be time to break camp and leave the mountain as the spirit's body "was so huge it blocked out the sun and froze the ground."²⁹ The blanket of white snow which then covered the mountain was the body of the spirit having emerged from the ground and by then Aborigines would have to leave for the low lands.

²⁶. Mudrooroo Nyoongah, *Aboriginal Mythology: An A-Z spanning the history of aboriginal mythology from the earliest legends to the present day*, London, Thorstons, 1994, p. 115.

²⁷. Berndt, Roland M., et al, *A World That Was: The Yaraldi of the Murray River and the Lakes*, South Australia, Melbourne, Melbourne University Press, 1993, p. 223.

²⁸. Anselmi, Anna, evidence to Federal Court Australia, Victorian District Registry, General Division, Yorta Yorta Claim, Proceedings, Melbourne, Auscript, 1996, p. 769.

²⁹. Kneebone, Eddie, Taped Interview (No. 4) with Sue Wesson, Wesson, Sue, *Australian Alps Oral History Project 1994*, unpublished report, 1994.

Kneebone has described the regular, seasonal movements for those groups who, although not from the Snowy Mountains, lived and moved along the Murray River Valley in the north east of Victoria and thence into the Victorian Alps. During spring, as the river-flats flooded, groups moved onto the open plains where vegetation was increasing and fauna was breeding, to where there was now plenty of water and abundant food and wildlife.³⁰ With the onset of summer, and the drying out of the plains, the Aborigines would move back to the river-flats, especially to meet with other groups, for an annual 'tribal' gathering. Then "many ceremonies would have taken place, initiations, marriages, trading, settling of disputes, renewing alliances and friendships." The all-important arrangements to travel over others' territory to participate in the Bogong Moth feast would also be made. The Aborigines would then move into the highlands--up the Kiewa and Mitta Mitta Valleys--and feast on the moths until the weather turned cooler in March. Returning to the river valleys, they would burn the grass along the way "to ensure regeneration in the following year."

They would return to the river-flats for autumn, as little water now remained in the dry interior but the permanent water ways, although often reduced to a string of water holes, would provide good food supplies for the hunter-gatherers. They could venture inland to burn some grass lands and drive fauna into the foothills, where the Aborigines would spend the winter months. Offering better shelter amongst rocky outcrops and below tree cover, the Aborigines would find food from the vegetables and herbs of the forests and from the animals which would retreat away from the thinning plains. With the coming of spring, they would again move out of the hills and onto the plains. Each season would thus see the Aborigines moving across the plains. They would move to find better food and shelter in either the mountains during summer, the river during autumn, the foothills for winter and back to the plains for spring. With such movement, 'travelling light' technologies were preferred.³¹

In more resource rich regions, in contrast, where populations were (and are) much larger and regions smaller, territories are more sharply

³⁰. Kneebone, E., "Interpreting Traditional Culture As Land Management", in Birckhead, J. et al (eds), *Aboriginal Involvement in Parks and Protected Areas*, Canberra, Aboriginal Studies Press, 1992, p. 228.

³¹. Mulvaney, John and Kamminga, Johan, *Prehistory of Australia*, Sydney, Allen and Unwin, 1999, p. 88-9.

maintained or take a more clearly defined form.³² The Yorta Yorta for example and other groups along the Murray had "developed such sustained harvesting of the rich fish, game and plants there they lived virtually sedentary lives in villages..."³³ In a manner similar for hunter gathering groups, they would disperse during the winter months when food from the river was less abundant. Nevertheless, for much of the year, they trapped, hunted and fossicked for a wide variety of foods including fish, waterbirds, yabbies, wallabies, emus, kangaroos, mussels, turtles, frogs, water lily and reeds.³⁴ Canoes, fish weirs, nets, carry bags, sticks and spears were employed to gain their food.

As with the other hunter gatherer groups, the Aborigines of the south eastern uplands would move around according to annual hunting and gathering cycles. In the lower plains across what is now the Australian Capital Territory, for example, wild turkeys, emus, platypus and yam daisies as well as fern and bulrush roots all contributed to the dietary needs of Aborigines as would fish, shellfish, yabbies, fruits and eggs, lizards and snakes.³⁵ Indeed, before being decimated by smallpox, Aborigines were noted for their relative numbers and health in these valleys, the neighbouring Tumut Valley in particular. The fish in the rivers and the abundance of water which attracted much wildlife provided for excellent hunting grounds. There were the seasonal Bogong moths as well.

Our narrative of the planning changes to the Snowy resumes in the mid 1950s with the seasonal campaign of construction again moving into high gear. By this point, however, round the clock shifts were underway and plans were being set for irrigation areas (figure 4). Concurrently, from October 1956, Cahill decided to cease his States 'arms length' attitude to Victoria's own challenge and decided, against federal ALP policy, to co-operate with Victoria in seeking a return of income taxing powers to the States.³⁶ In late November a parallel High Court writ was lodged by Cahill. The States were pressing for an alteration to interest charges levied on the

³². Pardoe, Colin, "The cemetery as symbol: the distribution of prehistoric Aboriginal burial grounds in southeastern Australia", in Murray, Tim, *Archaeology of Aboriginal Australia: A Reader*, Sydney, Allen and Unwin, 1998, p. 203.

³³. Goodall, op. cit., p. 12.

³⁴. Fahey, Charles, *Barmah Forest - A History*, Melbourne, Department of Conservation, Forests and Lands, 1988, p. 2.

³⁵. Flood, 1996, op. cit., p. 11-12.

³⁶. "N.S.W. Moves Against Uniform Tax", *SMH*, 10/10/56, p. 4.

Figure 4; Map, "This is Where Our New Farms Will Be", *Farmers Newsletter*, Large Area No. 24, Sept 1957 [see NAA: A2618, Document 2400].

This Is Where Our New Farms Will Be



This map is based on investigations carried out by a special committee appointed by the Minister for Conservation (Hon. Ern. Wetherell) to consider use of additional water supplies available in the Murrumbidgee River from the progressive development of the Snowy Scheme. The markings indicate approximate areas of development. The first new farms, about 800 in all, embracing both pastoral and horticultural farms, will be established in the Coleambally Irrigation Area, shown on the map stretching west of Yanko Creek and south of Murrumbidgee River. This will be served by a channel which takes off from Gogeldrie Weir on the

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southern bank of the Murrumbidgee. It is expected that work will then concentrate on a northern channel taken off from Gogeldrie Weir to serve lands within the present Kooba station and further areas to the north and west extending into Wah Wah Irrigation District. The remaining area between Yanko Creek and the new Coleambally Irrigation Area will be served by a channel with an off-take at or near Yanko Weir. Future development will be in lands east of Colombo Creek and south of the Murrumbidgee shown in the map by large dots.

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Scheme, that the States would only have to pay interest at a rate "not greater than" the long term bond rate.³⁷ Since December Bolte had also been pushing for more water from the Murray³⁸ and was gaining significant concessions.³⁹ This would help him, during late 1957 and early 1958, to cut a deal with the Country Party to get the Agreement ratified by his Upper House.

With these regional initiatives, by August 1957, both States were close to signing, aided by the fact that the uniform tax issue was moving towards resolution by the High Court in the Commonwealth's favour.⁴⁰ On August the 7th, New South Wales Cabinet then approved the latest draft Agreement which, as the *Sydney Morning Herald* now openly reported, would involve charges "reduced by about 10 per cent" up til the time the Scheme was generating 3,000 million kilowatt hours a year.⁴¹

The very next day, however, Playford telegraphed Menzies, again demanding a copy of the Agreement especially as it appeared from press comments that it involved "a serious infraction of this States rights over River Murray Waters."⁴² He followed up with a letter threatening a further High Court challenge and urged that Menzies provide a copy of the (draft) Agreement to him.⁴³ A copy could confirm the cross subsidies he suspected. The Commonwealth continued to cajole the States into signing before South Australia had a chance to see the Agreement. Then Playford wrote again, believing that "water reaching the Murray from any source becomes part of the Murray and subject to, and available for, all the purposes of the River Murray Waters Agreement."⁴⁴

In the meantime, the uniform taxation wrangle was resolved. In October 1952, Victoria had taken out a High Court writ by way of challenging the Commonwealth's expanding control over taxation. As no agreement was

³⁷. Fadden to Menzies, 30/4/57, NAA: M1505, 1196, *Snowy Mountains Hydro-electric Authority - Miscellaneous*.

³⁸. Letter from Bolte to Cahill, 3/12/56, PRO, VPRS 1163/P, box 1119, file P57/4681, *Snowy River--Agreement*.

³⁹. Playford to Menzies, 22/8/57, NAA: A1209, 1956/1872 Part 2, op. cit.

⁴⁰. "No Change Expected in System of Levying Income-Tax", *SMH*, 24/8/57.

⁴¹. "Cabinet Approves Draft of Snowy Agreement", *SMH*, 7/8/57.

⁴². Telegram from Playford to Menzies, 8/8/57, NAA: A1209, 1956/1872 Part 2, op. cit.

⁴³. Playford to Menzies, 22/8/57, NAA, *ibid*.

⁴⁴. Letter from Playford to Menzies, 9/9/57, PRO: VPRS1163/P, box 1119, file P57/4681, op. cit.

reached, it had done so again in December 1955, being joined by New South Wales in the action in November 1956. In late August 1957, however, although the High Court found invalid the requirement that income tax be paid to the Commonwealth before that due to the States, it upheld the right of the Commonwealth to make tax re-imbusement grants. Under Section 96 of the Constitution, these were conditional upon the States not levying income tax. Consequently, given the reliance of the States upon these grants, "this was the end of legal challenges to the uniform tax system."⁴⁵

Three weeks or so after this High Court decision the Agreement was signed by the New South Wales and Victorian Premiers, on the 18th of September 1957. It required only ratification by parliamentary legislation. Immediately it was signed, Menzies forwarded a copy of the Agreement to Playford.⁴⁶ The *Adelaide Advertiser* then published a long article on the 25th and the controversy became public. To the dismay of New South Wales, the Commonwealth then back flipped. It recognised the force of South Australia's technical point that section 45 of the River Murray Agreement referred only to diversion *by a State*, not by an Authority or by the Commonwealth.⁴⁷ Section 100 of the Constitution guards against any Commonwealth interference of the water rights of the States and this is reflected in the River Murray Agreement. By conceding to Playford, the Commonwealth was putting pressure on New South Wales to negotiate concessions to the downstream State. Regional, riverine water quality issues were now threatening to revise definitions of efficient water usage.

On the 16th of October, Playford then proceeded with his threat to mount a court challenge to restrain the Commonwealth from diverting the Tooma River and to seek clarification on what now constituted River Murray Water with the Snowy diversion proceeding.⁴⁸ He suggested that the plans, as hitherto conceived, were insufficiently aware of the specific importance of the Murray for Adelaide:

The whole future of South Australia from a development point of view depends entirely upon the River Murray. This year 80% of our entire

⁴⁵. Mathews, R. L. & Jay, W. R. C., *Federal Finance; Intergovernmental Financial Relations Since Federation*, London, Nelson, 1972, p. 229.

⁴⁶. Menzies to Playford, 18/9/57, NAA, 1209 1956/1872 Part 2, op. cit.

⁴⁷. Menzies to Bolte, 10/10/57 (emphasis in original), NAA: A1209, 1956/1872 Part 3, op. cit.

⁴⁸. "State Will Issue Snowy Writ" *Adelaide Advertiser*, 17/10/57.

population are completely dependent upon it, even for household water...and the flow of water [is also] necessary to keep the river to a reasonably low saline content.⁴⁹

The 'full utilisation', 'intruders in the bush' were not entirely welcome by Playford. In a manner dramatised by the grim expressionism and 'antipodean interiors' of Tucker, versus the emergent, international yet nationalising abstractions of Rose, at least two contrasting senses of how recontextualised knowledges should work were again at stake (figures 5 & 6). The abstractions of Rose leap out of the canvas. His elan of paint, like a geyser of steel and concrete, offers symbolic support for a shift in perceptions. A confidence in construction arrives, as I-beams radiate from the interior, supporting hopes for a renewed map of eastern Australia. With parrots perched around grave, 'antipodean heads' playing against chance, Tucker's ancient, stony epic of an interior, however, is wary and sanguine. But, beyond any essential characteristics of place, as the tale therefore sees the two card players pitted against each other, it could also be read as depicting a satire of problems arising with institutional stand-offs. Both are antipodean in the sense of cultivating local possibilities in relation to overseas influences, but arrive at different conclusions.

In late October, Menzies suggested that the River Murray Agreement, whilst keeping the Snowy Agreement out of the matter, be amended. It should recognise that the Tooma diversion was a diversion by New South Wales under the terms of the River Murray Agreement and that the matter be referred to the River Murray Commission. This put the onus on New South Wales. It could also allow both the upstream States to resolve the issue by working together. It was not until early December that New South Wales would agree to the referral.⁵⁰ In short, New South Wales' apparent oversight of the importance of the State-based legalities of the River Murray Agreement seemed to be costing it another 100,000 acre feet of water to Victoria as a way of ensuring that both upstream states would combine against South Australia. Meanwhile, as a result of doubts about the adequacy of protecting downstream farmers against floods, a supplementary Agreement was being negotiated. This would also provide

⁴⁹. Playford to Menzies, 17/10/57, NAA: 1209, 1956/1872, Part 3, op cit.

⁵⁰. "Snowy Mountains Agreement - Claim By South Australia", 18/4/58, p. 2, NSW Premier's Department, SRNSW: 13/10721, 64/1142/B, *Snowy Mountains Hydro Electric Authority - General*.

Figure 5; Painting by Albert Tucker, "Gamblers and Parrots" (1960)
reproduced from Uhl, C., *Albert Tucker*, Melbourne, Lansdowne, 1960, p. 80.

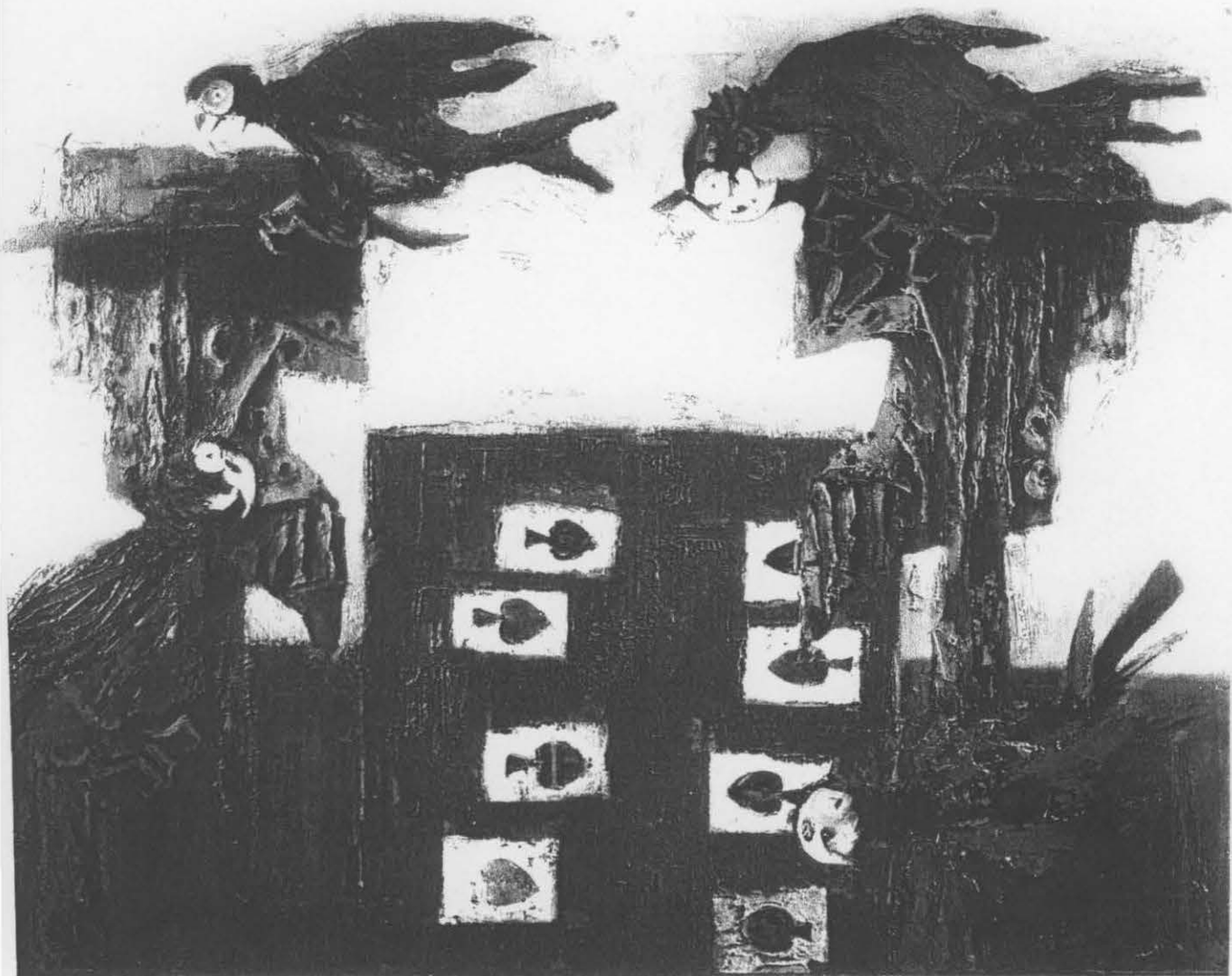
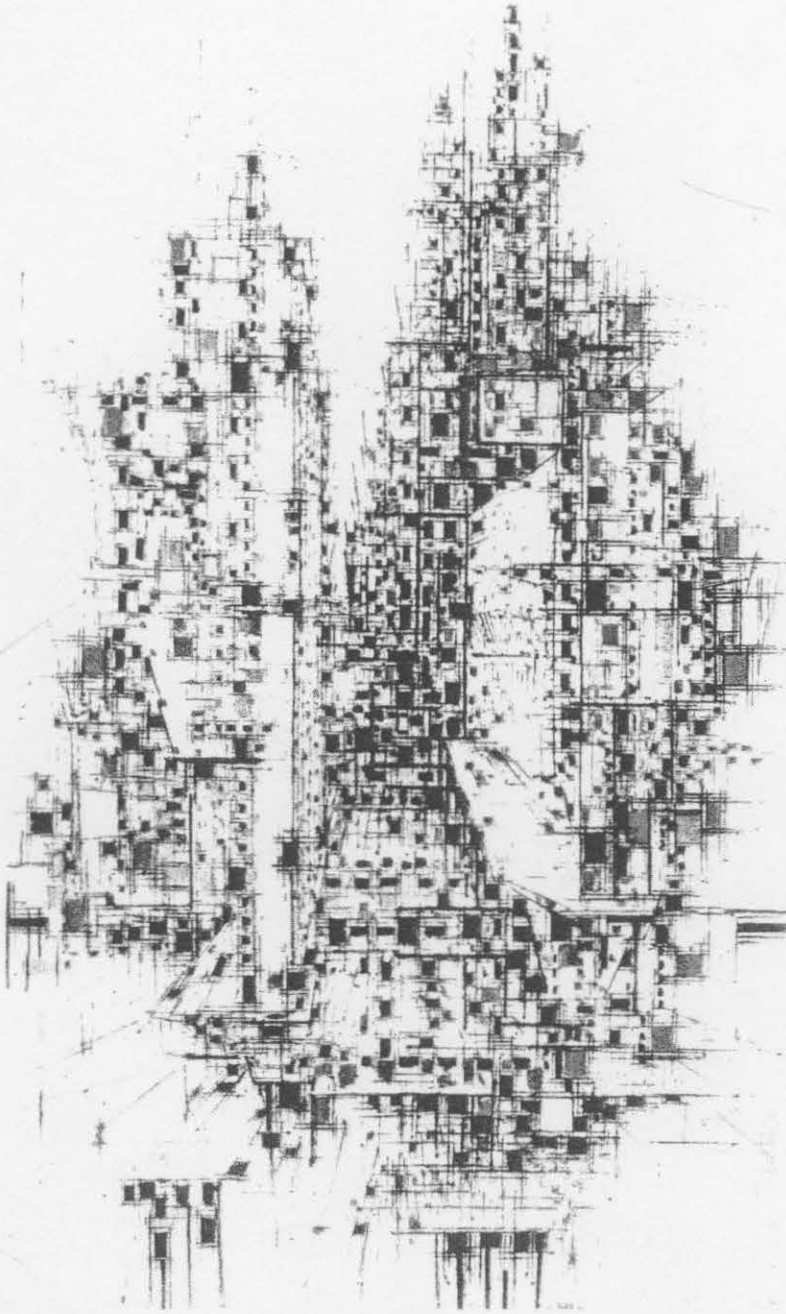


Figure 6; Painting by William Rose, "Construction", (1956), reproduced in National Art Gallery of New South Wales, *The Artist and the City*, Sydney, The Gallery, 1983.



William Rose: Construction. 1956 cat. 25

the means by which more water would be made available to Victoria from the Murray.

Playford resolved to continue his attack as he remained sceptical of the benefits of more storage.⁵¹ Specifically, for Dridan, the South Australian Water Commissioner, a lower level in the Hume was particularly likely during drought years and hence any extra storage in the Alps was superfluous.⁵² This seemed to ignore the fact that it was during wet years that the storages in the Alps would be filled and then, during dry years--low levels in the Hume or otherwise--this extra water could be released. Such an advantage would still be highly dependent upon the operating protocols of the upper level storages and of the Hume, as well as the amounts water drawn from the rivers, and these circumstances were far from clear. Further, exactly which part of the Basin--the Murray or Murrumbidgee--would be given preference, especially as it was in the northern part of the Scheme that the large Adaminaby storage was sited, remained in doubt. The water Commissioners of the three States were at embarrassing logger-heads over the possible permutations.

How do these kinds of negotiations compare with those typical of Aboriginal society? Traditional Aboriginal societies had their specialised roles, which also culminated in alpine meetings. Firstly, finely honed and highly detailed knowledges about what cyclic or seasonal events presaged availability of resources, defined clan roles and responsibilities. Women and children would normally gather vegetables, hunt the small prey and fish, whilst the men would hunt the larger animals, but such divisions were far from absolute. Customary rules also prescribed which person, of what age and status and sex, could hunt given animals. Women have also been crucial for the passing down of the land and the spiritual knowledge. This time, in sharp contrast to settler society which was still pushing on with its frontiersmanship approach, women also had, and have, an important role.

Rules governed the distribution and consumption of food. This knowledge, as well as helping to maintain a balanced diet, also established social

⁵¹. Spooner's notes on meeting held on the 24/10/57, NAA: A1209 1956/1872, Part 3, op. cit.

⁵². Dridan to Playford, 12/11/57, copy attached to Playford to Menzies, 13/11/57, NAA: A1209, 1956/1872 Part 4, op. cit.

hierarchies and maintained an individual's identification with the land of the clan.⁵³ Status and seniority within the clan or tribe would also be maintained. As such, these knowledges were themselves crucial for economic and cultural maintenance. They also sustained populations and resource availability for thousands of years in the more highly arid environments of the Basin itself.

Such a relation to the land thus involved a form of care for its continued health and fertility. The use of natural resources, for example, may also be regulated via the creation of sacred sites, which prohibited hunting and food gathering with their general area, often creating, in effect, game sanctuaries. Water holes and river banks may be deemed to be inviolable areas allowing fecund 'reserves'. More active practices were also employed, which would actively modify the environment by the transplanting of trees, the rotation of fishing areas and, as mentioned, by the controlled use of fire.⁵⁴

Such relations to land would tell of mutual rights and obligations both in relation to when and how to use resources but also in relation to others. As a series of creative (or totemic) powers created the world, members of each clan are responsible for maintaining the spiritual and hence physical health and welfare of the landscape and its resources. Thence, mythological stories hold the societies' lore/law as well. On his journeys through East Gippsland, Robinson had also reported the "excellent sketches" made by Aborigines on the inside of bark.⁵⁵ Via such methods, a sophisticated array of social and economic relations would thus be enacted. They would maintain both land and culture as resources were gathered and shared according to the lore of the tribe. Knowing not to be greedy is also a key element of this knowledge, guarded against via a high degree of reciprocity in Aboriginal societies.

Such reciprocity meant that sophisticated processes of consultation would be enacted. Similarly, inter-tribal relations play an important part, economically and culturally. Consequently, tribal boundaries, often related

⁵³. Mulvaney, John and Kamminga, Johan, *Prehistory of Australia*, Sydney, Allen and Unwin, 1999, p. 79.

⁵⁴. The Law Reform Commission, *The Recognition of Aboriginal Customary Laws*, Canberra, AGPS, 1986 (Vol. 2), p. 121.

⁵⁵. Clarke, op cit, p. 146.

to natural features or based upon river catchments, would blur as tribes shared terrain and resources during difficult years or at times of abundance, for example. As such, neighbouring clans have responsibilities over adjacent lands. Especially if the dreamings were at risk due to population falling, for example, territories were again shared. Overlapping frontiers rather than firm boundaries thence formed between territories.⁵⁶

Many of these cultural-resource relations, for the alpine-related peoples, found a major expression via the Bogong moth ritual. In the first instance, by following the Bogong moth into the alps as it 'hibernated' or aestivated from the heat of the plains during the summer, the moth made food sources more viable. Indeed, "compared with other regions the highlands lacked staple vegetable foods or good aquatic resources."⁵⁷ Nonetheless, tubers may have provided an adequate staple⁵⁸ but the moths were clearly important. Caught in nets, they were a rich source of protein with a "pleasant nutty taste" and Aborigines would temporarily displace the "leanness recorded during the winter months"⁵⁹ as they fed on the moths amongst the high peaks.

Co-jointly, the moth fest may also have been an important ceremonial rite--for men it is often thought⁶⁰--rather than for purely dietary reasons.⁶¹ Groups from all sides of the range, from the Upper Murray, the Monaro High Plains, the Snowy River Valley and the Omeo High Plains, would converge on the upper parts of the highlands during the summer months. Aborigines from the Murrumbidgee, Tumut and neighbouring valleys--the Ngunawal, Walgalu, Djilamatand, Wiradjuri, Jaitmatang and Ngarigo--would also seasonally migrate up the alpine valleys of Mount Kosciuszko and nearby peaks. Each group would be organised to ensure that supplies of moths would be adequate and the hunting would not proceed until they had all arrived.

⁵⁶. Smith, D. I., *Water in Australia: Resources and Management*, Melbourne, Oxford University Press, 1998, p. 138.

⁵⁷. Flood, Josephine et al. "Birrigai: A Pleistocene site in the south-eastern highlands", *Archaeologica in Oceania*, Vol. 22, No. 1, 1987, p. 9.

⁵⁸. Kamminga, op. cit., p. 112.

⁵⁹. Flood, Josephine, "Man and ecology in the highlands of southeastern Australia", in Peterson, N. (ed), *Tribes and Boundaries in Australia*, Canberra, Australian Institute of Aboriginal Studies, 1976, p. 32.

⁶⁰. Kamminga disagrees. See Kamminga, op. cit., p. 110.

⁶¹. Kamminga, op. cit., p. 111.

By meeting with neighbouring or overlapping tribes, Aborigines would share resources which were rare in neighbouring 'regions' and share economic surplus. Sharp rock shards for hunting, gum from trees, saplings for spears and pigment for painting were often reciprocally exchanged.⁶² In doing so, they would again enact rights and obligations. Importantly, with these meetings, initiation and marriage ceremonies could take place. These elaborate, multi-layered and reciprocal relations, with their long standing knowledges, would thus co-jointly manage resources. As a result, and again in parallel with White society, but as far back as 4000 years ago, an historically significant "'intensification' in economic systems" arose.⁶³ That is, as the Aborigines converged on the upper slopes, the groups would meet to exchange greetings and to conduct social ceremonies and a renewed Aboriginal culture of south east Australia has been mooted to have emerged as a result.

On the eastern side of the range, there is a corroboree ground, now inundated by Lake Jindabyne, which was used as a meeting place for east coast Aborigines before they would meet further up the range with other, inland groups.⁶⁴ A second, perhaps more significant corroboree ground also exists at the foot of Mount Crackenback. Travelling up from the western side, Via Broken Cart and Pigeon Square and up through the Goobarragandra and Peak River valleys, Aborigines would meet at Yallowin (Aboriginal for meeting place), in the Tumut Valley.⁶⁵ Just as Aborigines would gather at eel or fish dams or traps along various inland rivers, the Wiradjuri would come from as far away as Yass to hold corroborees at Yallowin before seeking out the bogong moths.⁶⁶ Several hundreds would gather, again making the valley a significant one for "interchange and cultural mixing."⁶⁷

⁶². Mulvaney and Kamminga, op. cit., p. 94-5.

⁶³. Flood, J., "Aboriginal Cultural Heritage of the Australian Alps: An Overview", in Scougall, B., (ed), *Cultural Heritage of the Australian Alps*, Canberra, Australian Alps Liaison Committee, 1992, p. 84.

⁶⁴. Kamminga, op. cit., p. 107

⁶⁵. Sams, D. E. J., *A Reconstruction of the Indigenous Culture of the Tumut Valley; An Assessment of Ethnographic and Material Evidence*, Armidale, University of New England, Dept of Archaeology, 1982, p. 12.

⁶⁶. Wilkinson, Thomas, "A Record of the Olden Days" [typed memoirs of Wilkinson, available from Tumut Library], p. 3.

⁶⁷. Sams, op. cit., p. 5.

For initiation ceremonies, the men would travel to the borah rings or corroboree grounds, earlier known as the 'Black Fella Rings' on the southern side of Bogong Mountain.⁶⁸ Based on ethnographic reports and as described by Sams:

Prior to the first gathering in October/November, smoke signals were used to signify the approach of the tribes. On arrival at Yellowin big corroborees were held and then all the men went away for a week or two leaving the women and children behind...the men and young initiates retired to the top of the range to a place where there were boring rings...⁶⁹

A stone arrangement still exists on the south western shore of Blowering and points towards a further, higher site, the Yolde site which provided a place to camp before ascending the mountains for moths.⁷⁰ An hour or two's walk away, to the north west, is the Yellowin site. Unfortunately, agricultural activity and inundation by Blowering dam waters has most likely hidden or destroyed campsites within the Tumut Valley. As has been shown with recent efforts to protect Aboriginal burial grounds on the shores of Lake Victoria, water management regimes can also operate to protect such Aboriginal heritage.⁷¹

With such seasonal activity, Aboriginal camp sites were scattered across the Alps. They were often along the best routes to and from the granite outcrops, which sheltered the moths. Located nearby to rivers and within easy reach of fishing possibilities, they were accompanied by ritual sites. For winter retreat, the lower Snowy Valley was particularly favoured for its relatively sheltered and hence comparatively mild climate, as was the Tumut Valley. The Monaro High Plains, however, being windswept, cold and less fertile, had less use for the Aborigines. Nevertheless, on the western or Murray side of the Alps "extensive campsites around Corryong on the Murray River probably reflect the winter habitat of the Djilamtang tribe [and] to their south, the Jaitmatang were probably centred on Lake Omeo,

⁶⁸. Hoad, Col, *What was the Aboriginal Presence in the Snowy Mountains?*, [unpublished m/s], Tumut, Tumut Library, 1996, p. 3

⁶⁹. Sams, op. cit., p. 11

⁷⁰. Ibid, p. 37.

⁷¹. Hope, Jeannette & Murray Darling Basin Commission, *Lake Victoria: Finding the Balance. A Response to the Competing Interests of Cultural Heritage, Environment and Resource Use* [2 Vols], Canberra, The Commission, 1998.

where again winters are mild."⁷² Jindabyne Valley, relatively high up the Snowy River, was "a well used camping place"⁷³ and accessible to research until flooded by the dam. A ceremonial camping ground, possibly used prior to the moth hunts by the local Ngarigo, exists near the junction of Snowy River and Wollondilly Creek, now submerged by Lake Jindabyne.⁷⁴ Axe grinding grooves in stone are also believed to exist at this location.

Chapman has continued the investigations along the shores of Lake Jindabyne as the action of water has exposed (and is eroding) the previously overgrown or submerged material.⁷⁵ A 'pebble tool factory', for the grinding of stone tools, plus scatters of stone artefacts and hardened clay fireplaces are also apparent. They are being moved or eroded as the dam level fluctuates however. Similarly in the Tumut Valley on the other side of the range, the campsite "on Yallowin Creek...being a very large site...[is] now unfortunately covered by the waters of Blowering Reservoir."⁷⁶ That is, even though rock art, shell middens or fish traps have not been sighted in the Kosciuszko National Park,⁷⁷ the region contains Aboriginal heritage of significant historical and cultural worth. Recent finds also include the spectacular kangaroo tooth necklace (figure 7). For Johnson, in sum, the region has "an important Aboriginal heritage, representing as it does Aboriginal adaptation to one of the extremes of the Australian environment."⁷⁸

These historic patterns of occupation and land-use were disrupted by the new dams. Burrinjuck, Talbingo, Blowering and other reservoirs, just as they have displaced traditional stock routes, have also interrupted traditional lines of indigenous communication. The Talbingo Reservoir, for example, has altered the relation between Yellowin, a traditional meeting place (also see below) and McPherson's Plains, a site of food.⁷⁹

⁷². Flood, 1980, op. cit., p. 194

⁷³. Ibid, p. 190.

⁷⁴. Kamminga, 1992, op. cit., p. 107.

⁷⁵. Chapman, V. G. "The Jindabyne Valley in Southern Uplands Prehistory: An Archaeological Investigation", MA Thesis, ANU, 1977, p. 3.

⁷⁶. Flood, 1980, op. cit., p. 179.

⁷⁷. Johnson, Ian (et al), op. cit., p. 52.

⁷⁸. Ibid, p. 107.

⁷⁹. George Martin, Taped Interview No. 6, accompanying Wesson, Sue, *Australian Alps Oral History Project 1994*, unpublished report, 1994.

Figure 7; Photographic plate, "Necklace of Kangaroo Teeth...", from Mulvaney, D. J. and Kamminga, J., *Prehistory of Australia*, St Leonards, Allen and Unwin, 1999.

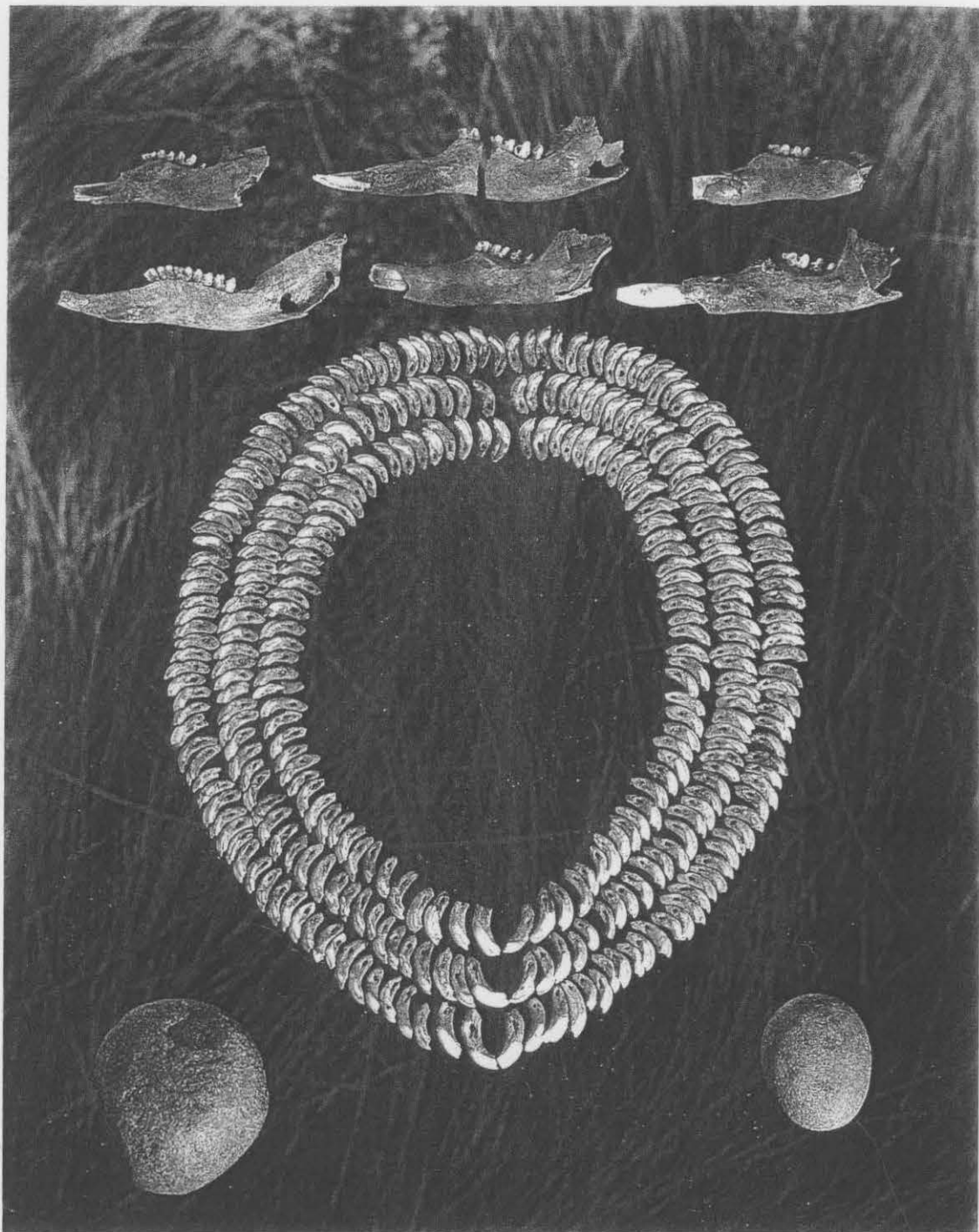


Plate III *Necklace of kangaroo teeth, marsupial jaws and hammerstones found with the Cooma burials.*
(New South Wales National Parks and Wildlife Service, S. Cohen)

The scale of dams was as dominant as ever. To better appreciate what South Australia stood to gain, in terms of increased quantity of water availability at least, Menzies continued to insist that Playford go to Cooma to be better informed. The Authority was suggesting that the storage capacity of the whole Scheme--about 4 million acre feet--would substantially improve the water available for "the whole Murray System."⁸⁰ If make-up flows for the diverted Tooma could be made from any available source, as per the River Murray Agreement, the diverted Tooma water could be made up from stored Darling River water. This could arise especially as the new storage at Menindee on the Lower Darling was near completion, although this lesser quality source could well affect the quality of water at South Australia.

Potentially compounding the concerns of South Australia about water quality, the Snowy Authority was also proposing revisions to the Snowy-Murray development. It was proposing to connect this project, or at least Island Bend on the Upper Snowy, via a higher level tunnel to the Eucumbene-Tumut project. Technically, this move had many advantages. Instead of 75% of the flows of the Murray project being regulated mainly by Jindabyne, the amount could be increased to 94% by joining Island Bend to Eucumbene.⁸¹ Crucially, the proposal would also dramatically increase the Authority's chances of quickly raising the water level of Eucumbene as water would flow from Island Bend to Eucumbene rather than to Jindabyne, increasing inflow by 50%, improving its economics.⁸² Further, via pumping plant at Jindabyne and by diverting the water at 700 feet higher than initially proposed, the new proposal would obviate the need for underground or 'underwater' power stations deep beneath collection points. M3, for example, was to be 1300 feet below the surface. Now, however, such power stations could be sited at the foot of the mountain on the Murray side without loss of energy. The high level tunnel would retain the 'head' of the water collected from the main range. It would allow the siting of power stations above ground, now much favoured for economical reasons and the defence-related rhetoric was now passing. The apparent technical imperative, often foregrounded by the Authority as driving the

⁸⁰. SMHEA[?], "Snowy Mountains Scheme - Benefits to South Australia" [circa mid November 1957], NAA: A1209, 1956/1872 Part 4, op. cit.

⁸¹. Hudson, draft Cabinet submission, 4/12/57, "Snowy Mountains Scheme - Snowy-Murray Development - Amendment to the Proposals of the Commonwealth and States Snowy River Committee", p. 2, NAA: A987, E1146 Part 1, *Snowy Mountains Scheme - Modified Snowy Murray Development*.

⁸². Ibid.

proposal, requiring the relocation of the Geehi Dam higher up the valley due to possible landslips at the lower tunnel location, could now also be met.

But the higher level tunnel ran the risk of compounding the difficulties with South Australia as water could be more readily shuffled around the Scheme if the Upper Snowy was to be connected to the Tumut. Indeed, the Authority had avoided providing any submission to Spooner on the matter as "we were anxious to avoid the risk of any new issue causing delay to the completion of the...Agreement."⁸³ Any mention of more elaborate possibilities for the interchanging of water, of allowing water to flow both ways between Geehi (on the Upper Murray) and Eucumbene, was studiously avoided as well; "the distribution of water between the Tumut and the Murray, as laid down in the proposed Commonwealth/States' Agreement, will not be affected..."⁸⁴

Indeed, Spooner quickly replied to the interchange design hopes of Hudson. They involved uncertainty for the States, especially Victoria (and hence South Australia). How could they be sure that they were getting the agreed split of water if such water could be readily interchanged between Island Bend and Eucumbene? For Spooner, Victoria would have parted with the "actual physical" connection to "a large volume of water" and would "look carefully" at the position.⁸⁵ The subsequent provision of new safeguards for the Agreement may mean further confusion and delays. It was therefore decided (yet again) to avoid making the matter explicit to the States until after the Agreement was approved by State parliaments.⁸⁶

These concerns did not extend to Aboriginal peoples. Earlier in the century, Aboriginal families such as the Mundy's and Hoskin's had mustered brumbies from around the Delegate ranges, supplying horses for the army. Delegate Aborigines would also travel down to the coastal plains, around Bega, and hunt for shell fish, collect plants for medicinal purposes and to make reed baskets.⁸⁷ They would also trade with the Warradjuri using

⁸³. Hudson to Spooner, 4/12/57, NAA: *ibid*.

⁸⁴. Hudson, draft Cabinet submission, 4/12/57, NAA: *ibid*.

⁸⁵. Spooner to Hudson, 12/1/58, NAA: *ibid*.

⁸⁶. Hudson to Spooner [letter not sent] 14/4/58, NAA: *ibid*.

⁸⁷. Ellen Mundy and Colleen and Margaret Dickson, interviewed by Sue Wesson, 29/5/94, summary transcript, in Wesson, Sue, *Australian Alps Oral History Project 1994*, unpublished report [and tapes], Canberra, Australian Institute of Aboriginal and Torres Strait Islander Studies, 1994.

possum skins. By 1957, however, the Delegate Reserve was closed, forcibly pushing remaining Aborigines--with traditional associations with the Alps--further away and into Bega. During the 1950s further pressures towards displacing communities were continuing via the new seasonal and pastoral work.

In the plains especially, even for the hitherto strong Sandhills Aboriginal community several kilometres from Narrandera, seasonal work was drawing Aborigines away.⁸⁸ This community had established itself after the dispersals or 'wrecking' of stations, especially Warangesda.⁸⁹ It grew to provide a refuge against destructive assimilationist policies and maintained its autonomy from Narrandera such that it was also "a claim for separate and independent co-existence."⁹⁰ But given the attractions of fruit picking and that "in the mid 1950s, the assimilation policy allowed family settlements to grow only in areas where Aborigines were needed as fruit pickers",⁹¹ the Sandhills community was itself under pressure.

Similarly, Aborigines from the Brungle station near Tumut, and Erambie near Cowra were drawn to the fruit picking season, especially after the assimilationist neglect and abuse of their reserves. Brungle was one of the first missions, established under Queen Victoria's reign. It was given to the Aboriginal people, as Vince Bulger, recalls, "never to be taken off them." Although Brungle was a self-supporting mission, with its own school, dairy cows, vegetables and other crops and even its own sporting teams, Vince, who identifies as a Wolgalu and a "mountain man", nevertheless recalls that it was also a "very sad" place, "just like being in jail." Aborigines would be paid only in rations but would venture from the mission to harvest corn and millet and to pick apples.⁹² Similarly, from October to May, Aboriginal families would follow the fruit picking opportunities in the Murrumbidgee Valley and "escape from the decay of Brungle and the autocratic managers of Erambie."⁹³

⁸⁸. Read, Peter, *A Hundred Years War: The Wiradjuri People and the State*, Canberra, Australian National University Press, 1988, p. 97.

⁸⁹. Ibid, p. 77.

⁹⁰. Ibid, p. 82.

⁹¹. Ibid, p. 97.

⁹². Bulger, Vince, interviewed April 1997.

⁹³. Read, op.cit., p. 102.

During the 1950s the reserves were still neglected. Attempts to assimilate Aborigines via town housing programs were failing. Further, town council-planned Aboriginal housing was being segregated from the town proper. A more general "spacial politics"⁹⁴ arose within several towns of the Basin as they sought to exclude Aborigines from purchasing blocks of land, sharing hospitals and schools, theatres and public conveniences. Although in the heart of the MIA at Griffith, efforts were also made by the Griffith citizens to help Aborigines "move from the reserves to the town."⁹⁵

Because of these poor conditions and hostile circumstances, many Aborigines began to move away from the country towns. They sought better living conditions and more secure work in the burgeoning industrial centres of the coast--whilst also often retaining a sense of their belonging to their land. Thus, for Goodall, "moving away has neither severed their sense of relating to their home country, nor has it removed the idea that a custodial relationship to land is an important part of an adult's social role."⁹⁶ But for those that remained, those clinging to reserves which were still scattered throughout the Basin often on the banks of its rivers, the offers of inducements to leave and the knocking down of shacks as opportunities presented themselves to the Board, continued. Out of the 700 houses initially envisaged in the early 1940s, by 1961, only 54 houses had been built for the whole State. The forcible removal of children of 'mixed' parentage was also occurring. Further,

the Cowra Whites had held out against accepting anyone, the Griffith council had used assimilation to get rid of a few fringe-camps, the Brungle residents had left only after their morale and dwellings were smashed, and the rehousing at Yass had left most of the people with nowhere to live.⁹⁷

In sum, whether living on the ever-threatened reserves along the river banks of the plains, on the fringes or within the often hostile farming towns, or amongst the remote cities along the coast, the cultural dislocation of Aboriginal life in the east of the Murray Darling Basin under forcible, assimilation policies was severe.

⁹⁴. Goodall, op. cit., Chapter 20.

⁹⁵. Read, op. cit., p. 108.

⁹⁶. Goodall, op. cit., p. 296.

⁹⁷. Read, op. cit., p. 112.

The parallel effort to remake the rivers in conformance with a full utilisation vision for a greater Australia continued. Menzies was pushing Playford to refer the matter of the high level interconnection to the River Murray Commission.⁹⁸ The River Murray Agreement, as interpreted by Barwick for Menzies, meant that South Australia had no claim to "net additional" water flowing into the Murray from the Snowy Scheme.⁹⁹ Playford was prepared to consult again only via another conference of Ministers.¹⁰⁰ Given that the upstream States tended to dominate this forum, and the likelihood that this 'technical' forum would not provide the solution which Playford was after, and given that Menzies had indicated that legal avenues would also be difficult for South Australia, Playford reiterated his desire for a political solution.

Nevertheless, the River Murray Commission met on the 20th and 21st of March 1958 to consider the matter. It agreed that the Snowy and River Murray Agreements were incompatible in-so-far as the latter provided only for diversion by a State.¹⁰¹ The New South Wales Cabinet had also met and on the 25th of March had approved the Snowy Agreement Bill but also decided that the Bill should not be proclaimed until the situation with regard to the River Murray Agreement had been finalised.¹⁰²

Subsequently, and not unexpectedly, when ratifying legislation was introduced by the Commonwealth Parliament on the 17th of April, 1958, Playford responded by issuing a writ the next day to protect South Australia's share of the Murray water and the quality of water it was to receive. Its focus was upon the legality under the River Murray Agreement of diverting the Tooma from the Murray. The writ also claimed that water diverted into the Murray from the Snowy should be subject to the terms and conditions of the River Murray Agreement. South Australia should have a right to a share of the diverted water.¹⁰³ Playford reiterated that 90% of reticulated water in South Australia came from the Murray and he was concerned to improve this supply, especially to cover drought periods.

⁹⁸. Menzies to Playford, 31/12/57, NAA: A1209, 1956/1872 Part 4, op. cit.

⁹⁹. Bailey to Menzies, 23/12/57, NAA: M1505, 1199, *Snowy Mountains Agreement - Water Clauses*.

¹⁰⁰. Playford to Menzies, 3/1/58, NAA: A1209, 1956/1872 Part 4, *Snowy Mountains Hydro-Electric Scheme - Agreement with the States*.

¹⁰¹. Winston to Bailey, 26/3/58, NAA: *ibid*.

¹⁰². Cahill to Menzies, 3/4/58, NAA: *ibid*.

¹⁰³. "Details of South Australian Writ", circa 20/4/58, NAA: A1209, 1956/1872 Part 5, op. cit.

Concurrently, efforts were being made to change the River Murray Agreement. Clause 45, the Commonwealth suggested, should be amended such as to allow the Tooma diversion to "be treated as water diverted by the States of New South Wales and Victoria" thus protecting the Commonwealth against legal action. Other amendments were also sought to clause 46 and 51; "to replace diverted water from any convenient source."¹⁰⁴ Primarily, South Australia was to be offered a better deal for water during dry years in return for the right to make up this water from the Menindee storage. New South Wales would gain greater flexibility in supplying Adelaide but would also have to provide more water to Victoria from the Murray. Nevertheless, better access to *fresh* water for Adelaide was still under threat.

In particular, New South Wales was not prepared to make up extra flows now due to South Australia from the additional water flowing directly to *the Murray* from the Scheme. It was paying for the diversion of water via the electricity charges on Snowy power and did not concede any legal requirement under the River Murray Agreement to do so.¹⁰⁵ That is, New South Wales wanted greater flexibility. It wanted to be able to replace the Tooma diversion with water from the new Menindee storage proposed for the Darling. Water naturally flowing into the Murray but now to the Upper Tumut via the Tooma diversion could be made up from turbid, non-snow melt sources. This would allow it to continue its long term plan to develop the Murray-Darling basin, to focus water availability at the MIA. This also became a New South Wales Cabinet directive to govern their negotiations.¹⁰⁶

The planned interconnection then became public, presented by Authority engineers--and New South Wales--as offering a more flexible and efficient use of storage (figure 8). But, it was admitted, the interchange would probably favour New South Wales as it was the Snowy waters which would have to go north, to the larger storage. As Eucumbene could also take more of the storage requirements, the press was speculating that Jindabyne township could be saved from being submerged.¹⁰⁷

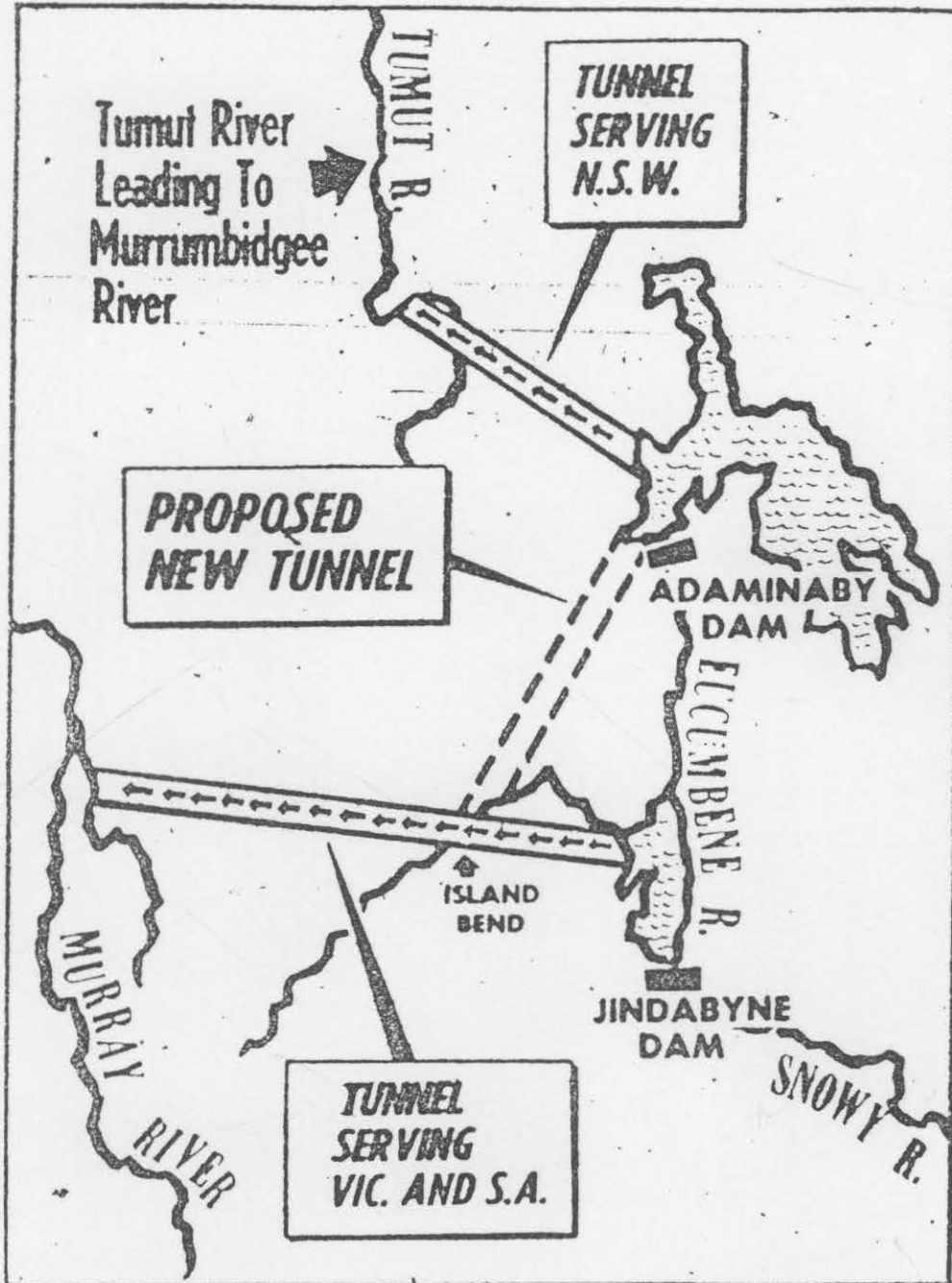
¹⁰⁴. Heffron to Menzies [no date], NAA: *ibid.*

¹⁰⁵. Brown to Menzies, 27/5/58, NAA: *ibid.*

¹⁰⁶. Spooner to Menzies, 5/6/58, NAA: A1209, 1956/1872 Part 6, *op. cit.*

¹⁰⁷. "Change in plans for Snowy", *Sun-Herald*, 1/6/58, p. 9.

Figure 8; Map from; "Changes in Plans for Snowy", *Sun Herald*, 1/6/58.



At a meeting of Ministers, all Playford could do, at least initially, was stick to a claim for extra water as a result of the diversions. Playford, however, moved to emphasise the value of freshets:

They are uncontrolled waters and they are of extreme importance to us because they are one means we have occasionally of sluicing out the river and getting rid of some of the saline matter which otherwise gradually accumulates and gradually so impregnates our water with salt as to make it unusable.¹⁰⁸

Freshets from the Murray system were especially valuable as they were of higher quality than from the Darling. However, the 'efficient' high level diversion and the modified River Murray Agreement were threatening, together, to close out this source of renewing water into Lake Victoria.

Hudson was then called upon by Cabinet to explain how the altered design would protect South Australia. His submission was now, however, in line with Spooner's earlier wishes. He now explained that South Australia's concerns would mostly be met. The Upper Snowy water stored at Island Bend could be transferred to Eucumbene and thence down the Tumut, but the Geehi water would have to be dumped into Jindabyne as the Geehi storage was at a lower level than Eucumbene. Consequently, too, "any water diverted by gravity from the Geehi River to Jindabyne Reservoir for storage would be pumped back to Geehi Pond and not to the higher level of Lake Eucumbene."¹⁰⁹ This would be done by placing a limit upon the power of the pumps at Jindabyne (as well as by not installing gates in tunnels) ensuring water could be pushed back only as high as Geehi.¹¹⁰

Treasury remained sceptical of the economics but with complexities mounting and an Agreement so close the deal went through the Advisory Council.¹¹¹ Menzies now assured Playford that the physical arrangement precluded illegal diversions out of the Geehi catchment; "Geehi water will not be diverted to Lake Eucumbene either by gravity or by pumping from

¹⁰⁸. "Conference on The Snowy Mountains Agreement and The River Murray Waters Agreement", 6/6/58, p. E2, NAA: A1209, 1956/1872 Part 6, op. cit.

¹⁰⁹. SMHEA Cabinet Submission, "Proposed Amendments to the Snowy-Murray Development" June 1958, p. 11, NAA: A987, E1146 Part 1, op. cit.

¹¹⁰. Hudson to Bunting [Secretary, Prime Minister's Dept.], 10/2/60, NAA: A987, E1146 Part 2, op. cit.

¹¹¹. Spooner to Fadden, 25/8/58, NAA: A987, E1146 Part 1, op. cit.

Jindabyne."¹¹² Although it took the next twelve months for Playford's concerns to abate, and for Menzies to write on the matter, this assurance that the Upper Murray (if not Upper Snowy) water would *not* be part of the long term 'Brewster plan' for the Basin--to focus water availability on the MIA--formed the basis of the agreement with Playford.¹¹³

New South Wales and Victoria continued to hold, however, that South Australia was getting the better deal. They wanted, as a final compromise, to be able to review aspects of the River Murray Agreement. A period of restriction could be declared by a three quarters majority (instead of a majority) making it easier to out-vote South Australia. Secondly, Clause 51 be amended to specify more completely the methods of apportioning water without worrying about evaporation and water losses as much as Playford wanted. Thirdly, and crucially for the two upstream States, the River Murray Agreement would be extended into a Basin-wide Agreement; "it should be made clear that Victoria and New South Wales may provide South Australia's share from any convenient source in such proportions between themselves as they shall decide."¹¹⁴

The outcome was that South Australia would gain the (net) water diverted from the Snowy counted as River Murray water, at least during times of restriction or drought. The three thirteenths would be taken from a larger overall pool. By way of protecting flows but also qualities, water would also be prevented from flowing from the Geehi to the Tumut. South Australia also managed to resist many of the proposed changes to the River Murray Agreement but had to accept an amended (automatic) method of establishing that a period of restriction existed based on storage levels.¹¹⁵ Nevertheless, South Australia had to be satisfied to take water from "any convenient source", as defined by the two other States. Indeed, with the Menindee storage becoming a crucial means of allowing New South Wales to meet its undertakings to supply the lower Murray, this new, albeit qualified flexibility to the Snowy Scheme's water interchanges (figures 9 & 10), was a further victory for upstream States. In particular, along with the

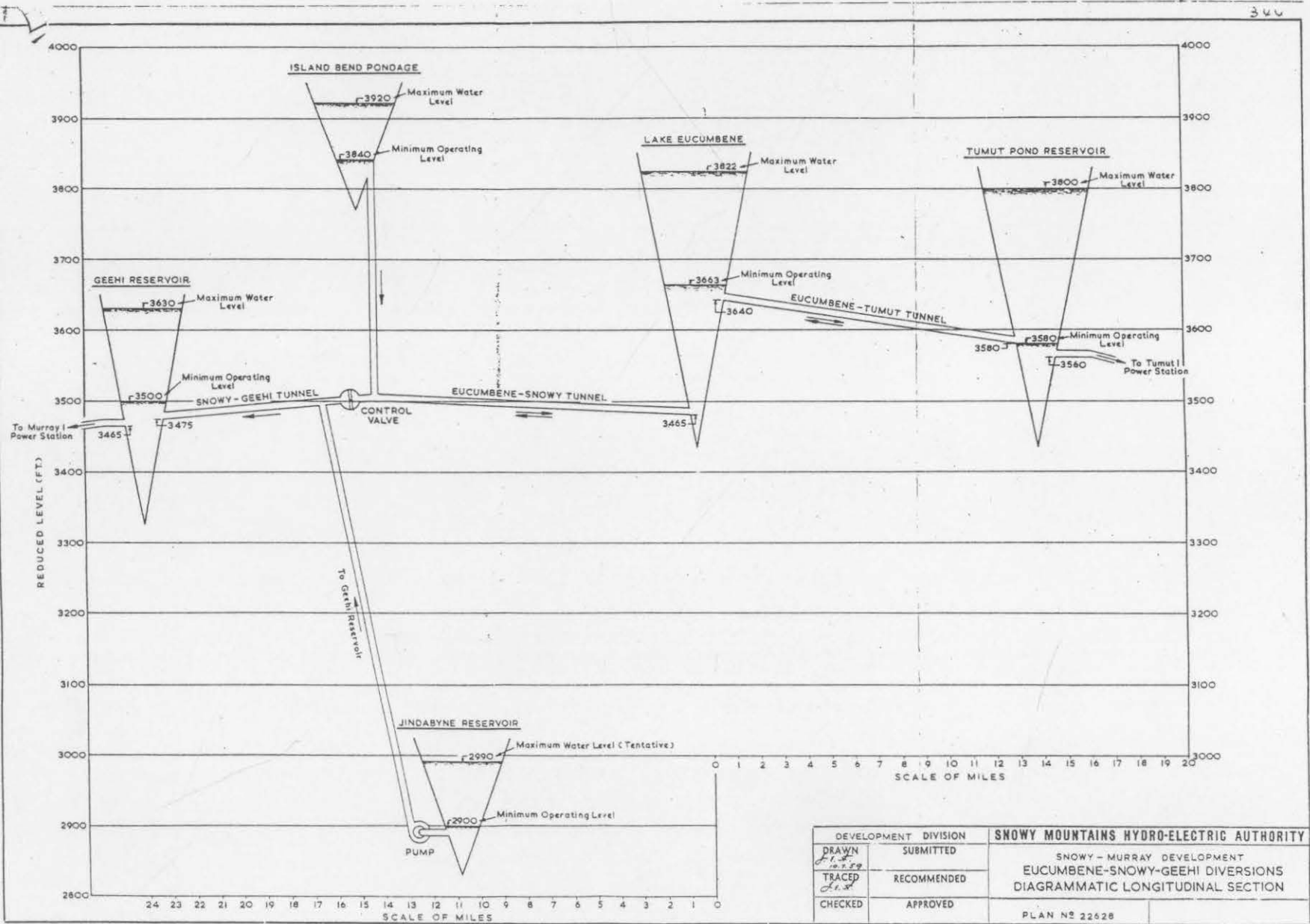
¹¹². [draft letter] Menzies to Playford, circa February 1959, NAA: A987, E1146 Part 2, op. cit.

¹¹³. Menzies to Playford, 5/4/60, NAA: A463, 1958/2436 Part 2, op. cit.

¹¹⁴. Conference, "The Snowy Mountains Agreement - The River Murray Waters Agreement", Attachment A, 3/7/58, NAA: A1209, 1956/1872 Part 7, op. cit.

¹¹⁵. "The Snowy Mountains Agreement - The River Murray Waters Agreement", Conference, 3/7/58, p. 6, NAA: *ibid*.

Figure 9; Diagram by SMHEA, "Eucumbene-Snowy-Geehi Diversions Diagrammatic Longitudinal Section", July 1959 (Plan 22628) NAA: A987, E1146 Part 2.



DEVELOPMENT DIVISION		SNOWY MOUNTAINS HYDRO-ELECTRIC AUTHORITY
DRAWN J. S. 10.2.59	SUBMITTED	SNOWY - MURRAY DEVELOPMENT EUCUMBENE-SNOWY-GEEHI DIVERSIONS DIAGRAMMATIC LONGITUDINAL SECTION
TRACED J. S.	RECOMMENDED	
CHECKED	APPROVED	
		PLAN N° 22628

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Figure 10; "Principal Diversion and Distribution of Irrigation Water" [pre Victoria's extra 100,000 acre feet] Snowy Mountains Hydro-Electric Authority, "Progress on the Snowy Mountains Scheme", 5th World Power Conference, Vienna, World Power Conference, 1956.

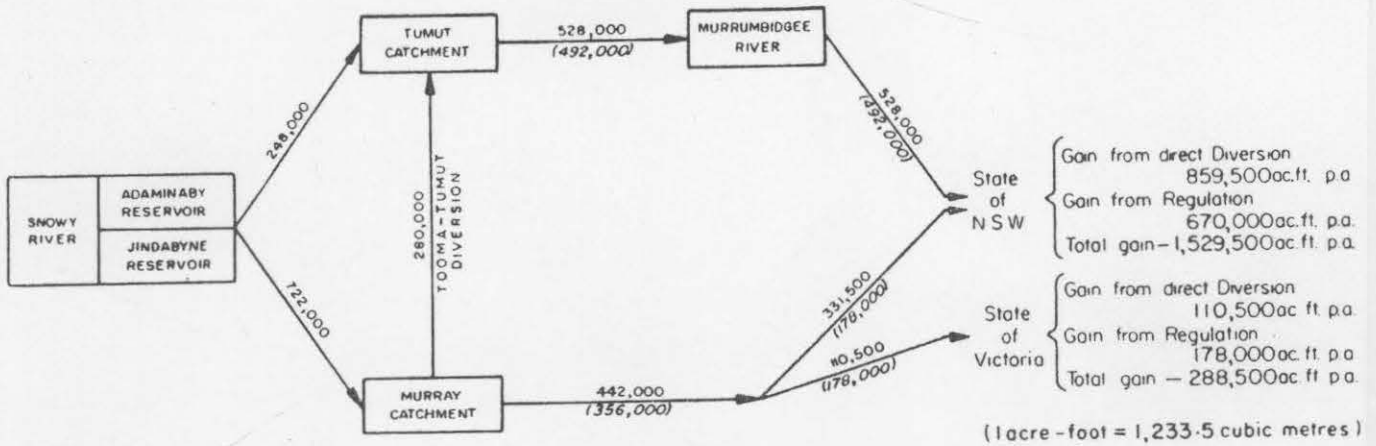


Figure 5

Principal Diversion and Distribution of Irrigation Water
 Die Hauptüberleitungen und die Verteilung des Wassers für Bewässerungszwecke
 Diversions principales et distribution de l'eau d'irrigation

Vertical figures — Diversion Quantities in acre-feet per annum	Senkrechte Zahlen — Überleitungsmengen in 1,233.5 m ³ pro Jahr	Chiffres verticaux — Volumes dérivés en 1,233.5 m ³ par an
Sloping Figures — Gain from Regulation in acre-feet per annum	Schräge Zahlen — Gewinn durch Regulierung in 1,233.5 m ³ pro Jahr	Chiffres inclinés — Gain obtenu par régulation en 1,233.5 m ³ par an

broadening of the quantitative emphases of the River Murray Agreement, it marks a partial yet significant victory for Brewster's and New South Wales' long term, '20 year' plan (from the late 1930s) for the Murray Darling Basin, to serve the MIA.¹¹⁶

New South Wales signalled its concurrence. A week later Bolte indicated that his Cabinet was willing to agree. Playford then announced that as a result of South Australia amendments, providing his State with more water in a drought period, the Snowy Agreement had been settled.¹¹⁷ The Agreement--with supplement--was formally proclaimed on the 24th of September, 1958.

Qualitative concerns remained. Ever since the Hume Dam was mooted and then begun in 1919, speculation arose as to what the affects of river regulation would be on the Barmah Forest or riverine wetlands. The flooding patterns of the Murray--flooding during winter and spring and receding during the summer--had long been acknowledged to be the means by which the forest seeded itself. With irrigation diversions and damming of flows, however, these regimes were gradually changing. Since the early 1930s in particular, when the Hume Dam was about to be (finally) completed, speculation arose as to what the affects might be and by the late 1930s it was decided to put in place a weir at 'the Gulf'. The increased flow of irrigation water during the summer months down the river was keeping the water abnormally high in parts of the forest, whilst the damming of the river was also keeping flows low in winter/spring. The weir would at least prevent abnormally long summer flooding. And by 1944 the problem of the lack of winter flooding--leading to falling rates of seeding--was also of concern. Tindale, the forester responsible, also believed that poorly timed or too long a flooding could drown previous seedlings.¹¹⁸ Cattle were eating seedlings and this he believed to be the main problem. In 1950, a quarter of the 77,000 acres of the forest available for grazing was then closed.

¹¹⁶. Warrell, E. G., "Notes on Commonwealth-State Relationships in Regard to the Snowy Scheme", p. 6 (Document 1869), NAA: A2618, DOCUMENTS 1869 TO 1886, *Notes on Commonwealth-State Relationships...*

¹¹⁷. Jones to Craig, 15/7/58, NAA: A1209, 1956/1872 Part 7, op. cit.

¹¹⁸. Fahey, Charles, *Barmah Forest - A History*, Melbourne, Department of Conservation, Forests and Lands, 1988, p. 54.

By 1953, however, the Murray Valley Development League and many local residents were noting the significant damage which had been caused to the forests by the irrigation weirs and dams and the loss of flooding cycles.¹¹⁹ Many were calling for regulators to be placed in the inlet channels to the forests to prevent undue summer flooding as irrigation water passed down the river, although others were fearful of whether this may increase flood levels. From the early 1960s experiments were conducted seeking to establish the affects upon the forest of grazing.¹²⁰ Contra previous assumptions, the investigations concluded that cattle apparently aided regeneration by reducing the weeds and grasses which were in competition with the sapling seedlings. In November 1967, the Barmah Forest was reopened to cattle.

To return to Cumeragunga, nearby to Barmah, the war years had seen a further deterioration. Policies decided upon in 1939 had been delayed and further efforts were made to close down the reserve mainly via attrition. The authorities then sought to formally close the reserve in 1953 with the Board officially requesting that the Lands Department revoke all but 200 acres of reserved land. Again, like in the 1930s, the cottages were also allowed to run down to encourage dispersal and because, the Board suggested, the land was "no longer needed by the Aborigines."¹²¹ Even though this general revocation did not take formal effect, the majority of the reserve was leased out. And "the remaining acreage, including the 200 acres to be retained as an Aboriginal reserve, was being farmed by...Europeans" and thus because "the land up to the doorsteps' was leased, residents worked elsewhere as farm labourers."¹²² Yet "in the late 1950s Cumeragunga residents began to investigate the possibility of obtaining control of the reserve once again."¹²³ Aided by the mainly European Aborigines Advancement League from Victoria, the residents began to seek access to the lands which their forebears had cleared. In particular, the residents began to investigate in 1959 "the possibilities of co-operative

¹¹⁹. Lawrence, G. V., "Notes for Guidance of Red Gum Inspections Echuca....1953", 11/5/53, CSUA, RW214/419.

¹²⁰. Ibid.

¹²¹. Barwick, Dianne, "Coranderrk and Cumeragunga: Pioneers and Policy", in Pennay, D. H. and Epstein, T. S., *Opportunity and Response: Case Studies in Economic Development*, London, Hurst, 1972, p. 64.

¹²². Ibid, p. 64.

¹²³. Fahey, op. cit., p. 9

farming, and to petition for the use of the land still reserved."¹²⁴ In Melbourne too:

in 1960 the Cumeragunga exiles in the Kew branch of the Victorian Aborigines Advancement League...launched a Land Committee and began to prepare a detailed plan for the reclamation of the remaining 1500 acres of reserve which were leased to the whites, then the redevelopment of farming there.¹²⁵

Aboriginal land co-operatives were also being formed during the late 1950s and early 1960s in north east New South Wales. The famous Yirrkala land claim and bark petition in northern Australia were not alone. By February 1963 in fact--a couple of months before they learnt of the Yirrkala land challenges--the Cumeragunga people "presented a case which drew on the communities memory of their history on the reserve."¹²⁶ In April 1964 White farmers leases were cancelled. Rural Aborigines then met in October 1965 and concerned themselves especially with land. As well as calling for the building of houses on reserves where Aborigines desired to live the government was requested to address the rural employment of Aborigines "in its decentralisation plans, so that pressure would cease being applied to make people move away from the area of their choice."¹²⁷

From late 1965, a New South Wales Joint Parliamentary Committee of Inquiry into Aborigine's Welfare was also set up to visit and report on many centres throughout New South Wales. It also took evidence from Cumeragunga in July 1966. But it took until May 1966 for an agreement to be signed allowing Aborigines to proceed with farming. Meantime, at Brewarrina in the north however, "the move to West Brewarrina in 1966 meant the loss of access to hundreds of acres of reserve lands in the west."¹²⁸ Then, after the 1967 referendum was won, enabling the counting of Aborigines in the census and granting powers over Aboriginal affairs to the Commonwealth (with little effective change in the immediate wake of the outcome), a report of a New South Wales Joint Committee was tabled:

¹²⁴. Barwick, op. cit., p. 64.

¹²⁵. Goodall, op. cit., p. 310.

¹²⁶. Ibid, p. 310.

¹²⁷. Ibid, p. 323.

¹²⁸. Ibid, p. 319.

It was an even greater shock than the federal government's retreat over the referendum...rather than endorsing Aboriginal criticisms, the report accused the Board of being too slow and hesitant in its assimilation activities...The committee recommended a far more aggressive assimilation, in which Aboriginal people were now to be under surveillance from many more authorities which all demanded normative compliance with 'white standards'...It acknowledged that good crops were now being harvested at both Cumeragunga and Cabbage Tree Island, but it was scathing about Aboriginal desires to farm land collectively.¹²⁹

But the evidence given to the committee suggested that efforts had long been made and were continuing to be made to advance the reserves by farming. Especially at Cumeragunga, attempts had been made since 1960 to regain control of the reserve by ending the leases to 'European' farmers. By 1964 the Aborigines Welfare Board had at least agreed in principle to the farming project. Kevin Atkinson, as manager of the farm on the reserve, outlined to the committee how the community had waited for years for permission before finally going ahead with some farming. Vealers had been raised and wheat also grown, using a tractor and a combine, donated by the Victorian Aboriginal Advancement League and irrigation was also being considered for the growing of fruit and vegetables.¹³⁰ Even though the committee encouraged Atkinson to investigate the irrigation prospects of the property, this was done mainly for the purpose of emphasising the need for the community to get on with assimilating.

The Acting Convenor of the Advancement League, Edith Bacon, reminded the committee of the efforts of the past. Early in the century wheat had been grown on the reserve and "in 1930 this was a flourishing community with forty six cottages, a hospital and a church. Approximately 1,000 people were living on the reserve of between 2,800 and 3,000 acres,"¹³¹ although as the 1930s passed, the conditions collapsed.¹³² But the committee was more concerned about the on-going economic prospects rather than maintaining indigenous associations with land. They were pre-occupied

¹²⁹. Ibid, p. 328-9.

¹³⁰. Parliament of New South Wales, *Report from the Joint Committee...upon Aborigines Welfare, Part II - Minutes of Evidence*, Sydney, Govt Printer, 1967, p. 444 [in New South Wales, Joint Volume of Papers...1967-8, Sydney, Govt Printer, 1968]

¹³¹. Ibid, p. 447.

¹³². Barwick, op. cit., p. 62.

about future prospects for work in such an isolated area, about the steps made to involve irrigation expertise to determine the prospects of deploying water on the farm and whether any firm plans were in place to get the property producing, even though the lease was yet to be formally signed.¹³³ The committee, in short, was more concerned about the motivation of the community or its ability to do the work rather than about the barriers in their way or of how assimilationist policies were inhibiting a sense of place, purpose and cultural maintenance--for the Aborigines.

But then Stan Davey, who had assisted Pastor Douglas Nichols and others in the formation of the Aboriginal Advancement League of Victoria in 1957 and who was a minister for the Church of Christ and was now a Director of the League, was heard. He acknowledged that the community was remote but, as with the decentralisation arguments often put by rural communities, this should not mean that the community be broken up. He also challenged the assumptions of the committee that an often autocratic or condescending assimilation was the best approach. For Davey, the Aborigines "have the right to be consulted about plans for their future and must be consulted about them for the plans to be successful." Assimilation often did not allow for this self determination without which there was less chance of self reliance. And thus in a spirited defence of the need for community cohesion based on the land, Davey, a 'whitey', challenged the assumptions of the committee in no uncertain terms:

There is a sense of community and cohesion amongst these people. It is not a matter of poor people clinging together. Secondly, there is an attitude towards the land among them that we do not have. There is a respect for land. Land is not be bought and sold and exploited, but it is something to which these people belong. This goes right back into the roots of tribal life. They had tribal land that was known thoroughly. All the animal and plant life was known and respected. They did not wander nomadically in a way that disregarded their own tribal area. They wandered within a set area and they looked upon it as being their land.¹³⁴

¹³³. Parliament of New South Wales, 1968, op. cit., p. 446.

¹³⁴. Ibid, p. 459.

When the committee turned the question around, and asked whether the option of staying in the reserve was actually a limiting option, Davey again stressed self-determination. For him, deciding the best option always involved "people's limited knowledge" but "if we can expand that knowledge by giving them as much insight into the possibilities they may still make the choice. If these people do not choose, it will be unacceptable."¹³⁵ The possibilities of self determination and for cultivating diversities of development and occupation of land were therefore, again, apparent. As with Ferguson twenty years previously, they were still being put forcefully and eloquently, at least within the submissions, if not via the conclusions of the inquiry. As with other claims to make something more from development rather than merely compounding sameness, via the assimilation of Aborigines and to have them conform to the drift to the cities or to Anglo cultures of employment, other possibilities and values for inclusion were also being fought for. Similarly, the current generation of Yorta Yorta are seeking to claim return of lands and water. For Wayne Atkinson at the Federal Court hearing into granting such rights:

Our philosophy is...based on maintaining the environment...and using some techniques to manage it, such as fire to regenerate growth and to increase wildlife population...What has happened with the control of the water systems in the Murray Darling Basin is contrary to this philosophy. It is environmental vandalism on a large scale. I am frightened that what is happening here will turn the forest into a wasteland, as has happened in other parts of the world where similar practices have been used, and failed."¹³⁶ (figures 11 & 12).

Taking this interplay between the last stages of the design and impact on Aboriginal people together, we can see that qualitative water rights issues, whether affecting indigenous heritage within the Alps and Murray Darling Basin or the supply of water to Adelaide, have been part of Snowy Scheme histories. The 'formal bias' of systems-centric assumptions have been challenged in the past. Along with the abstract, geometrised place and space of the engineering drawing boards, along with its quantified figures and flows, there have existed parallel traditions. From the early explorations of the Murray Darling Basin and of the Australian Alps

¹³⁵. Ibid, p. 460.

¹³⁶. Atkinson, Wayne, "Statement of Wayne Roderick Atkinson", 17/9/96 [provided as evidence to Federal Court on the Yorta Yorta claim].

Figure 11; Painting by Clifton Pugh, "A Crucifixion on the Salt Plains" (painting), April 1959, reproduced in Nolan Gallery, *The Antipodeans, Another Chapter*, Melbourne, Fine Art Press, 1988.

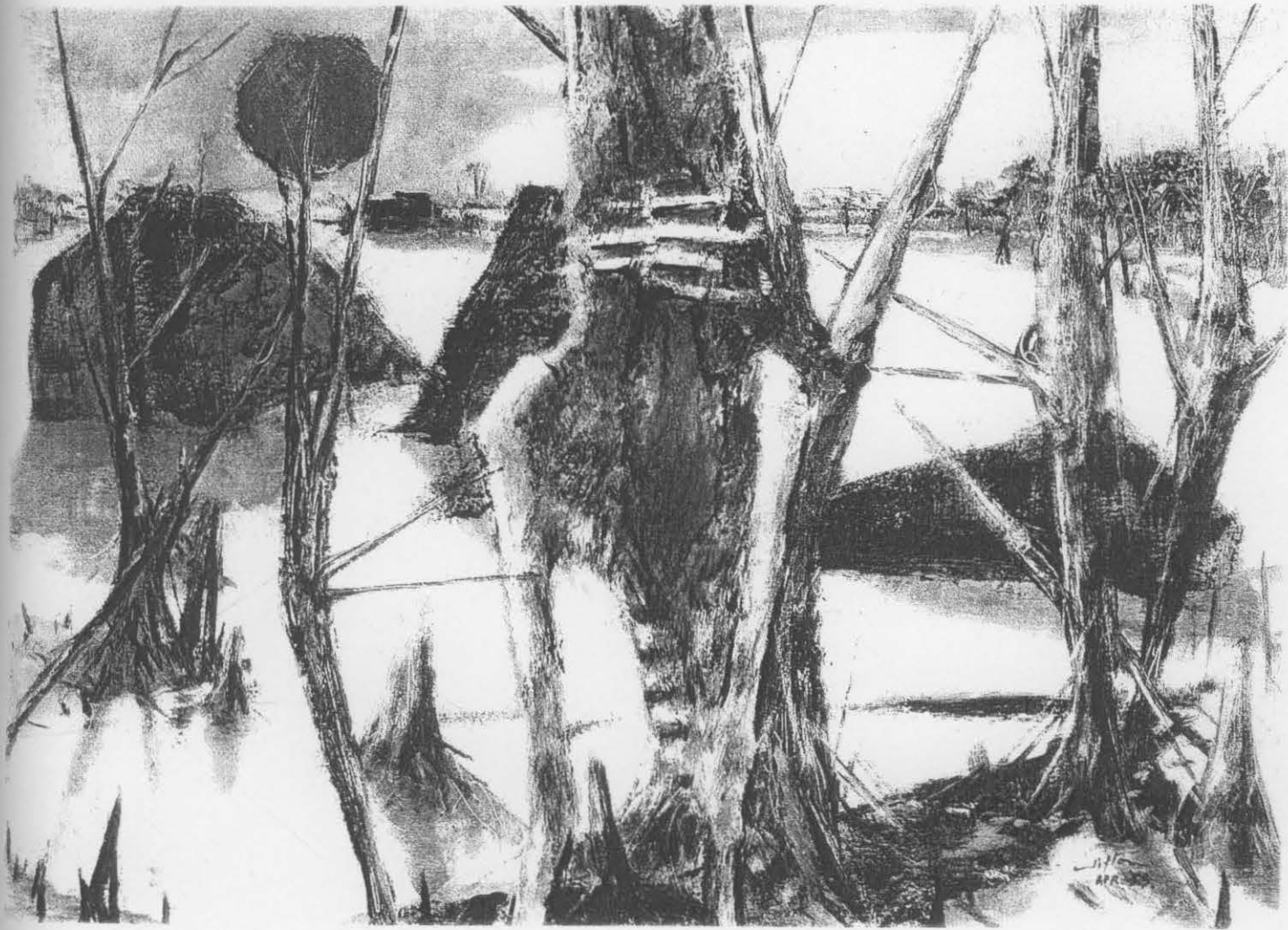
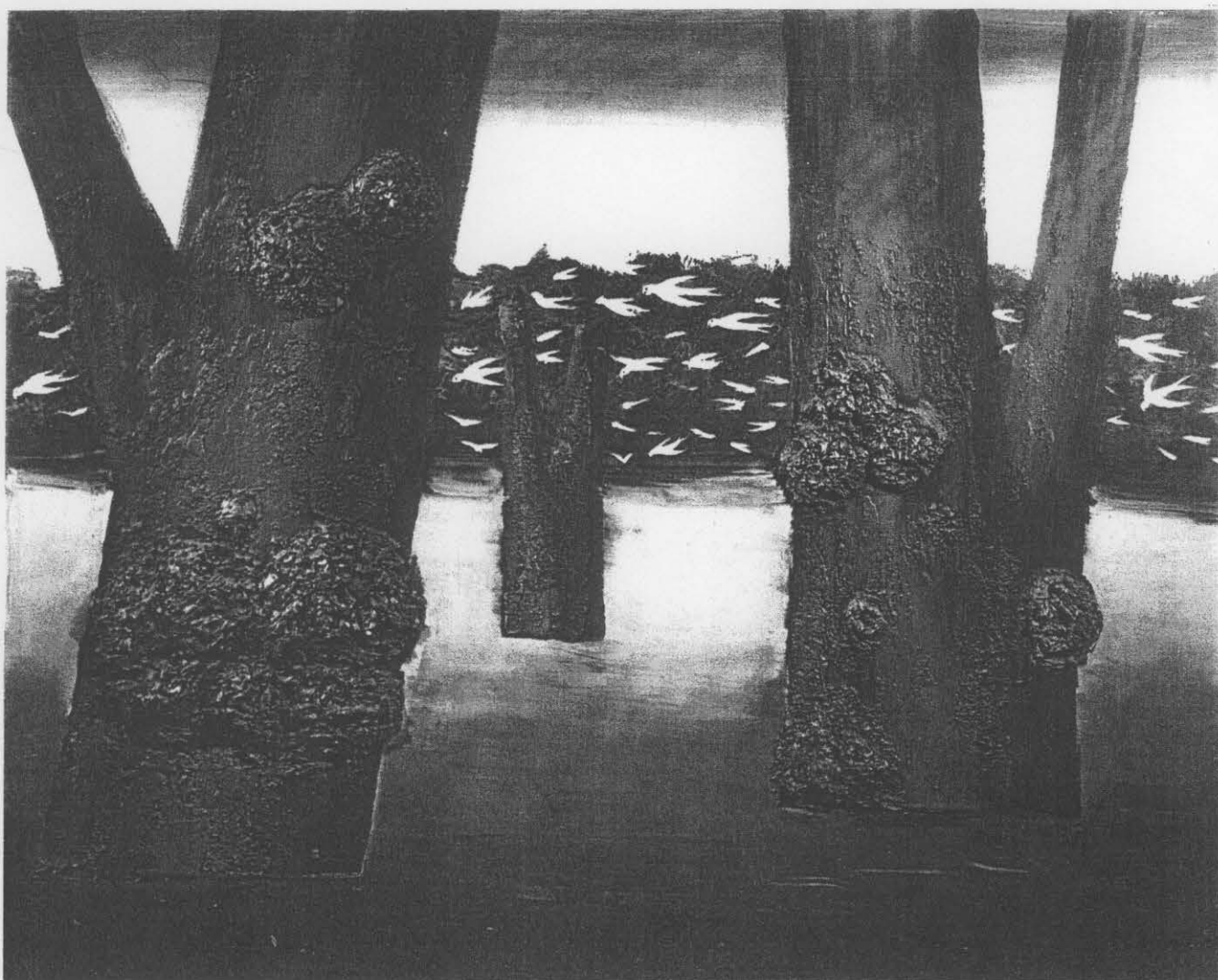


Figure 12; Painting by Albert Tucker, "Cockatoos, Barmah", (1964), reproduced from Uhl, C., *Albert Tucker*, Melbourne, Lansdowne, 1960, plate 31.



themselves, the intimate awareness of terrain, climate and flora and fauna of Aborigines provided knowledge for the 'discovery' of these lands. Many have even suggested that the particular ways in which Aborigines have cultivated the 'grasslands' of the interior also provided a basis for the subsequent wave of settlement and cultivation. Either way, the lived relation to place of indigenous peoples has continued to evolve. Despite being often hidden from view, the wisdom of place of indigenous people's has also been ever present. Within the bold 'full utilisation' ethos itself, an awareness that more than a quantitative relation to the rivers and water-use is required, and has been included into the design of the Scheme.

The maintenance of Aboriginal cultures by their own traditions of myth and ritual have, like Euro or US-centric traditions, also placed water and land in a crucial relation to human presence. Dreaming stories of the creation of the lands-and-the-rivers plus the rituals of meeting and moth hunting have regulated the closely connected social and land-use activities of traditional Aboriginal societies. Cultural memory of, for example, the Yorta Yorta, even dates back to when river courses changed due to geological upheavals. Traditional sites of meeting and ritual also still exist at the places where pre-European invasion Aborigines once thrived. For example, on the shores of Jindabyne as well as Blowering and Talbingo, significant sites have been identified.

The dominant traditions, although also placing an importance upon symbolising water and land, have done so such as to favour the massive remaking of place and space. Dry-and-dusty engineering scenarios--in need of massive 'relief'--and their technocultural representations, held sway throughout the major period of design and construction. The post-war development of the Snowy Scheme has seen an intensification of quantitative symbols and engineering practices for remaking place according to such 'fordist river' assumptions. The images of Lang, Drysdale and Rose encourage greater amounts of stored and regulated water as the confident option for a landscape and riverine system apparently more in need of massive interventions because of its highly variable cycles of scarcity and flood.

The design change to the Scheme forced by the actions of the 'marginal' city of Adelaide is therefore an important precedent, not just as it sought to maintain water quality for Adelaide but as it offers an alternative to the

quantitative emphasis. The alteration to the high level interconnection between Eucumbene and Geehi, was designed such that water could not flow out of the upper Murray catchment or from Geehi across to Eucumbene (albeit that a similar diversion from the Upper Snowy River was ... supported). This prevented fresh water flows or snow melt from being diverted from the more direct route to South Australia via the Murray. It therefore went some way to maintaining fresh water flow regimes in Murray. Arguably, it is often inter-catchment transfers that are the most disruptive to bio-diversity and to riverine health. A 'formal bias' of systems builders of the 1940s and 1950s, to push on with the building of larger dams, under a scientific approach to water management, thus came under challenge. Although the wasteful Chowilla dam would soon be mooted by Playford and the revised River Murray Agreement had its quantitative scope extended, an implicit and sometimes contrary relation had been recognised; that to benefit an urban population marginal to the Scheme, riverine cycles should be maintained.

Via such an implication, the orderings and cultural geographic remakings of the engineers and of the various water commissions appear as having their own, more obvious assumptions. Foremost, the rhetorics of technological autonomy and the sensitivities of mobile, if also renewing, overseas expertise may be less attuned to the cultural and geographic combinations of locale. In contrast, painters such as Albert Tucker, offered a wary tale. He suggested that local differences imply environmental risks beyond those appreciated and which include co-joint risks of attitude or institutions. And culturally, during the same period, various indigenous traditions of place (however hybridised with settler traditions) were being denied, although Arthur Boyd expressed the tragedy of the existing outcomes. Aborigines were still being pushed off reserves by these very same pressures for intensified land use. As the new orchards and productivities of the irrigation areas arose, Aborigines often became dependent upon these new and often uncertain forms of itinerant labour. Removal from reserves, the taking of children and the assimilation policies seeking to erase indigenous cultures, continued during the 1950s.

A range of Aboriginal traditions or Aboriginalities have, however, continued. Especially with the recent land rights victories in the High Court, they are again re-asserting their claims to cultural co-existence. In particular, the Yorta Yorta claim recently heard before Victoria's Federal

Court challenges the totalising assumptions of the earlier water planners. Aborigines, often with disrupted relations to place and traditions, are re-asserting their presence, their traditional associations and developing their own current ideas on water and land management. Assumptions of empty lands and highly extractive approaches to rivers are being questioned by Aborigines seeking respect for their prior and continuing presence and by their own sophisticated and parallel knowledges and often interwoven histories. Similarly, sites of Aboriginal cultural significance in the Kosciuszko National Park, and as affected by the Scheme, may pose further challenges to the preponderant, scientific heritage of post-war engineering design. Even as imported planning idioms have failed in the past to make much of overseas precedents for including Aborigines, a more inclusive space for differences is being sought. Finally, and in parallel again, the meeting grounds of the Alps have also led to cultural transformations for indigenous society. Just as for post-war reconstruction society, but possibly for thousands of years, the Alps, with its resources, Aboriginal heritage and inter-tribal associations, has represented a crucial site of Aboriginal meeting and renewal.

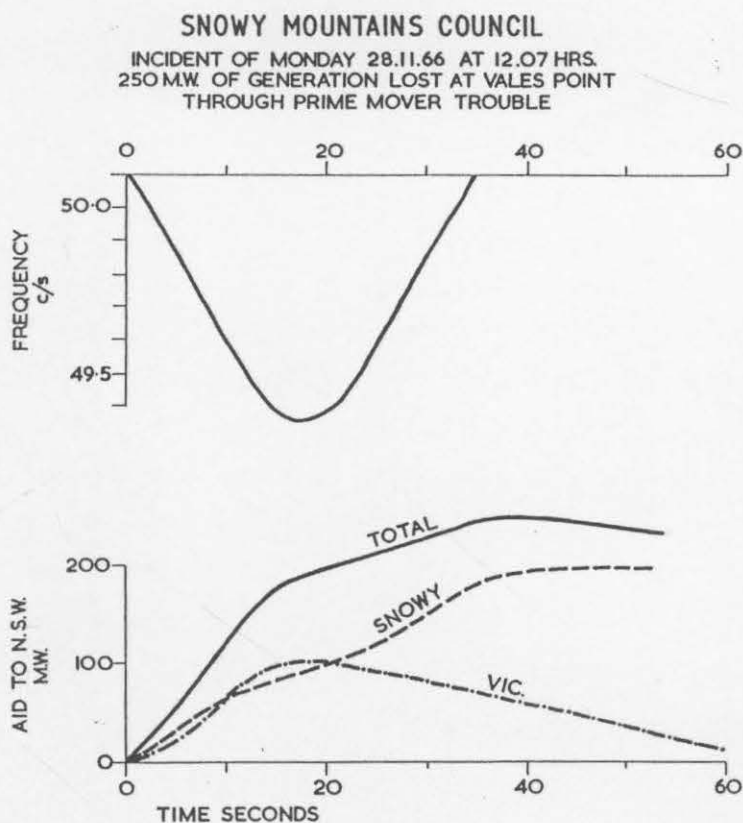
Chapter 7: Conclusion--Interpreting A "Spinning Reserve"

Even though the Snowy Scheme has seldom been used as a 'spinning reserve' generation facility (figure 1) this important systems security function can provide a useful metaphor for the technical, social and environmental crucible which is the Scheme. The spinning reserve function refers to the ability of the rotating water turbines, under low load, to come quickly up to full power and thence to protect the overall system from failure due to sudden load shedding. The Scheme's capacity could restart the power sinusoid in the south east Australian electricity grid. As metaphor, spinning reserve may also be applied to critically examine the joint processes which have come into play in the Scheme itself.

The Scheme as designed and constructed has been in circulation, with varying fluency, has passed through spirals of communication and interpretation. It is a multi-purpose reserve or container whose technocultural choices have varied symbolically, politically and technically. Analysis may therefore focus on the socially spinning aspects of spinning reserve and upon its institutionally circulating characteristics. Spinning reserve, by suggesting an alternative to ways in which large technical systems use nature as a standing reserve--to plunder nature--may also suggest senses in which natural resources have been husbanded, their potentials enhanced as well as degraded. Accordingly, the continually re-interpreted, open character of the Scheme, along with the closures and oversights of its dominant spirals, plus its qualities of re-made place, will be stressed in this concluding review.

Principally, the Scheme was inspired by US models and processes of multi-purpose, river basin and regional planning. The regional aspirations arising thence highlighted the interplay between local geographies and interpretations of design possibilities. The construction of post-war regional identities (the vying borderlands) occurred in parallel to the design options of the Scheme. Various prospects, and hence designs, for electrified landscapes, well-watered and revitalised farmlands as well as proto environmental and other initiatives were also accompanied by reinvigorated political possibilities for the regions. These initiatives were bolstered by the 'think big' rhetoric of a nation seeking to populate or perish. The strengthening of central government emphases, drawing on

Figure 1; Graph, "Snowy Mountains Council. Incident of Monday 28.11.66 at 12.07 Hrs. 250 M.W. of Generation Lost at Vales Point Through Prime Mover Trouble" in Snowy Mountains Council. *Visit to Works Operation Centre, February 1967. Summary of Address to Council, Cooma?, The Snowy Mountains Authority?, 1967, fig. 6.*



US TVA precedents, also threatened to break federalism out of an easily contained continuance of State-sponsored development.

Accompanying the Commonwealth's strengthened hand, a diversity of re-aligning interests participated. Regionalism was invigorated, politically and geographically, by re-interpreting overseas programs and by drawing on local cultures of development under a federalism empowered to enable a fusion of horizons of local aspirations. An interpretive flexibility of designs arrived with this expanded horizon as local approaches to development gained a semi-autonomous position. US precedents also boosted grass roots, politically-empowered regionalism so as to provide statutory responsibilities to regional planning authorities. This, in turn, arose via a reading of the TVA planning methodology as participatory. Regional development was interpreted, in the manner of Mumford, to favour local environments. Significant soil and forestry conservation initiatives were proposed by Henderson, for example, a proto eco-feminist. Within 'full utilisation' regionalism, it was suggested that federalism be re-aligned to accord with cultivating ecological diversities. Replacing the States, a more diversified, locally responsive federation of many regions in association with the Commonwealth, can be glimpsed. This occurred despite the fact that those who were attempting to redress the neglect of borderland regions, and were themselves more closely aligned with river basin or even ecological regions, were not necessarily looking for an ecological federation.

It was the moment of danger, the threat of invasion and then the shift from British to US hegemony during and after World War Two, that encouraged other possible re-figurings of national development. Development programs were actively appropriated not only by interpreting overseas models but by selecting from the various positions on offer. Re-contextualised overseas technocultures were, indeed, the main source of openness/multi-stability as US capital slowly came to replace Sterling. Thus, the mild, hybrid nature of the Scheme from an Anglophone (and European) cultural perspective; a bric-a-brac of shifting influences. A changing combination of symbolic, technological, planning and financial stratagems.

The longer standing, conservative, New States approach of the lower Snowy (cross border) region was boosted. They had been long-term campaigners

for regional justice. The New States strategy for this coastal region arose, however, at a time when the States were being down-played by the Commonwealth and as the newly emergent regional enthusiasms for and of the interior were burgeoning. Although proposing a political realignment, because of the hegemony of 'water for the thirsty land', the Snowy region would be outbid by the more far-reaching horizons--technically, geographically, politically and economically--of the alternative transformations on offer. With the new transmission and tunnelling technologies interplaying with the new full utilisation approach to planning and thence with the new regionalism, the lower Snowy, hydro-industrial option became a (mere) survival from the interwar period. Symptomatically, their claims for regional justice were being circumvented by the majoritarian claims for development made possible on the other side of the range via the inter-basin transfers of water.

During this period of planning enthusiasm local Aborigines were wishing to pick up on Indigenous American New Deal aspirations. As well as being pushed back on to reserves, Aborigines were pushing for their reserves to become a basis for enhancing their rights to economic independence. The 1944 'Powers' referendum offered hope for such prospects. Without this change, however, and without much in the way of legal or constitutional rights, this most marginal borderland continued to be neglected, especially as pressures to intensify agriculture emerged. The bold appropriation by Bradfield and Idriess of the boomerang as symbol for their well-watered, defensive line of population in the interior, which also inspired the Snowy Scheme, is symptomatic in this regard. Without constitutionally recognised rights or treaties (unlike in the US) indigenous aspirations for the Barmah forest, for example, or hopes for salvaging heritage sites from the foreshores of the artificial reservoirs of the Scheme, have been easily defeated or ignored. Much of the indigenous relation to the history of the Scheme has been one of neglect, assimilation and denial. As irrigated agribusiness intensified land use pressures, Aborigines found themselves reforming around fruit and crop picking employment prospects whilst being denied access to expanded agricultural possibilities on the former reserve lands.

The nation building process, from this perspective, was a strategy to shore up rather than open up. Implicitly, the Scheme has been a 'scheme' or strategy to exclude indigenous borderlands or first nations from an

intensified Anglo-Celtic nation, remaining strange to their cultural aspirations or grammars of life. Because of the failure to make more of indigenous overseas precedents, hegemonic development was re-inscribed, possibilities were contained and Aborigines were re-enlisted into exclusionary and hence intensified forms of control. Nevertheless, long indigenous association to lands, whether via the Aboriginal Reserves, agricultural labouring and community memory and via the cultural sites themselves within the Alps (also affected by the construction of the Scheme), have persisted.

The opening up of possibilities for reorientating or reformulating cultural identities was filled with fearful as much as progressive or optimistic possibilities. Contesting the optimistic New Deal or 'New Dawn' planning and democratic enthusiasms of post-war reconstruction were conservative, cultural-political forces. A re-inscription of Anglo-Celtic cultural desire was a dominant theme, against the fear of being 'alone in Asia', which the isolation of World War Two was seen to imply. It hence involved a large measure of consensus around a White Australia population policy. Reconstruction was seen as a way to secure a white cultural outpost, to populate Australia with Anglo-Celtic thence European migrants or face 'race suicide'.

Spinning reserve may signify this process of re-inscription into dominant modes of planning, of being unable to break with dominant technocultural assumptions and traditions. Against indigenous and/or water quality emphases, spinning reserve exhibits its own momentum, its unsettling formal biases, its spirals of systems serving inertia. From Bradfield's verdant vision and Drysdale's newly surreal droughts, which became images of national identity, to the Authority's films and its repeated Drysdalesque imagery, the quantitative, 'water for the thirsty land' imperative, financially supported by ever more energy intensive scenarios, has been often remade. The quantitative, full utilisation cultural geography has remained an ever-ready cultural hermeneutic resource, a strongly forming then informing cultural characteristic throughout.

The major legitimating device of the administrative class in this regard has been their metaphors of fact. Although also yearning for a greater rationality in public policy after the set backs of depression and war, such desires tended to displace broadly constituted communicative and

institutional practices. Symbols produced by technocratic consciousness were crafted to argue for technological autonomy, pseudo-objective or idealised efficiencies, unencumbered by contradictory values. Similarly, if aligned to an energy intensive scenario, was the Murray Valley Association's early, if uncertain, confidence in opting for an 'apolitical' approach to planning. Such a 'scientific' and, hence, supposedly apolitical approach to designing the regions tended to also suit a defensive Commonwealth government. After the loss of the Powers referendum of 1944, the Commonwealth's uniform taxation and defence powers would have to suffice. Reflecting this strategic weakness, any planning initiatives tended either to be hidden or communicated in terms of this dominant, policy-epistemic order.

From the early stages of the design therefore, although variously interpreted or significantly contested, communicative possibilities were being circumscribed by a scientific planning hegemony, apparently as a result of a limited and limiting interpretation of US planning heritage. Sometimes guided by a politically savvy but also by an uncritical, full utilisation, engineers approach, the planning process more readily migrated into the backrooms of the government departments and began to assume a technologically determined character. The administrative criteria of an emergent, apolitical, post-war expertise, serving its own full utilisation criteria, thus became crucial in determining how much self-serving momentum existed within the design options. The fading of a proto-environmental role for the Commonwealth, as per the concerns of the Rural Reconstruction Commission, was symptomatic. The need to undertake soil surveys in tandem with other measures of comparative economic analyses gradually faded as the instrumentally aligned departments of the Commonwealth were preoccupied with their own survival. Not having access to on-going advice to critique the irrigation enthusiasms of the States, the Commonwealth's role became narrow and defensive. Although the Snowy Authority would pursue soil conservation in the Alps, this meant that the Basin itself would remain without a Commonwealth Authority.

Inevitably, however, values insinuated themselves into the process. Administrative criteria varied, depending on institutional location. It was a matter of what was efficient, productive or workable for whom, for which corporate aims. In fact, although the senior engineers were publicly-

minded, had a high level of competence and were incorruptible, their internecine, federalist battles were evolving such as to significantly compromise the process. The move into the field by the recently constituted Commonwealth Department of Works, without overt constitutional powers, soon inflamed the States.

Nevertheless, beginning under Chifley and continued under Menzies, a highly active, Keynesian state, even if often technocratic and directive, replaced the stop-start state of pre-war. Via the catchment transfers of water on offer, embryonic river basin regionalism was transformed as the Commonwealth sought to use regionalism to play-off the two main States against each other. Regionalism became a largely instrumental device for expanding the power and scope of a uniformly systematising central government. The majoritarian regions of both the Murrumbidgee and Murray came to be served, as were the two major State capitals. Nevertheless, a much more nationally co-ordinated and full employment, if majoritarian, economy emerged in concert with the Scheme.

From 1949, the primary means by which divergent interests could be included in the spinning reserve process, was through the inter-governmental forum for the Scheme, the Snowy Mountains Advisory Council. It had been proposed by Chifley as a means of negotiating the disagreements between the States and the Commonwealth. Large technical systems need equally adroit social innovations to control them. Unfortunately, however, the Council was not convened until mid 1953, after the decision to move the Adaminaby Dam site to the Eucumbene Dam site.

Under Menzies, the prospects for decisive institutional reform appeared more remote as fearful, Cold War cultural tactics of 'war in three years' in Asia came forward. The internal political strategy of forming a coalition with the Country Party was preferred instead of allowing for extensive (inter-departmental then public) discussions of possible technocultural outcomes such as a staged or moderated construction program. The agribusiness-first scenario also complemented US global interests. At a time of recession in the US, USBR expertise was kept employed, US (and other) construction companies gained entree to Australia to assist. Whilst securing this deal with US expertise plus gaining loan funds to speed agribusiness outcomes, Menzies' and Fadden gained a US-style, multipurpose, 'think big' project.

Although Menzies appears to have been relatively adept at playing off US and Sterling interests, the furtive and fait accompli tactics alienated State Premiers and power interests and led to over-investment in irrigation preferences. Strained relations also created industrial turmoil (exacerbated by the McCarthyist tactics of Menzies) and hence stalled potentials for progressive change across a range of fields. Nevertheless, via strained consultation, a qualified peak power Scheme was forced by New South Wales, a more staged approach was adopted, financial and hence legal compromises were reached and compromises with South Australia were set. Even as Menzies sidestepped more open economic review, States rights and the energy intensive and manufacturing interests of Collins House (and Sterling), he protected the Coalition and maintained a Keynesian hold on the economy.

As films, in particular, aimed to circumvent broader federalist processes such as the Advisory Council, the role of public relations appears counter-productive. The Authority sought to reconcile farmers to this 'socialist' project by drawing a parallel between the traditionally adept horsemanship of the 'Man from Snowy River' and the 'thousand horses' of the modernised earth movers of the Scheme. Within a land 'dry and dusty', the solution of fordist rivers became an easy association, whilst sidestepping open political debate. A spectacle of progress, obfuscating the geo-political shifts and planning choices, arose to defend a shaky role for a co-ordinating, centralising government.

The technical training overseas of engineers also entailed a significant amount of window-dressing for the inter-play of global economic power, seeking to limit Australia's role within large agricultural systems. Arising from the Snowy Authority engineering experience, however, has been the Snowy Mountains Engineering Corporation. The inclusive and democratic capacities of its expertise remains to be considered. A comparison between pre and post-war dam construction quality, as influenced by US skills transfers, and how productivity gains were shared with the arrival of new contract methods, also remains to be fully undertaken. Technoculturally, however, the outcomes appear limited.

Industrial change increased dependencies in so far as it amounted to deskilling. Cold War industrial pressures saw piece-rate, intensified and

exploitative work regimes more extensively deployed. As the '\$5 day', fordist production-line was applied to rock tunnelling and to earth moving, however, increased wages were supported. Achieving results earlier than planned also (probably) resulted in windfall profits for the contractors and significantly assisted the Snowy Authority in its battles with the States.

A polarised attitude towards technological change appears to have existed amongst the unions. Stemming from events surrounding the 1949 coal strike, the AWU sought to displace rival mining unions who, for bitter historical and political reasons, were implacably opposed to new technology. Although never seriously threatened in its coverage of unskilled construction work by other unions, the AWU uncritically embraced the supposed inevitabilities of the new technologies, readily accepting the intensification of work. By also avoiding strikes, this corporatist unionism was abetted by the American contractors and by a sympathetic judge. Fundamentally, however, with World Bank loans arriving in parallel with predominantly US contractors and construction methods, along with the deal to back off from manufacturing scenarios in return for agribusiness and hence irrigation first emphases, plus the willingness of Menzies to attack unions, these all combined to push the long term and break neck speed scenario forward.

Relatedly, as contracts were revamped, a local engineering firm, Allied Engineering, was nearly sent broke, although Thiess, again with its close links to the AWU and American-style approach, would eventually thrive. A more thorough examination of the issue would need to explore the Scientific Services Division of the Authority, the training gained along with improvements in engineering skills and the distribution of other aspects of the benefits of technological change. This should include how research was deployed to protect and upgrade the quality of working life.¹

Against the corporatist outcomes, however, forces arose to contest the dominant tendencies. Bielski and his multi-lingual column in the *Australian Worker* newspaper and other efforts, provided a more migrant friendly unionism. Bielski and his Snowy workers thence staged an important challenge to the union-contractor work regime, but given that

¹. Also see Robinson, Fergus, *A Study of Occupational Health and Safety Practice in the Construction of the Snowy Mountains Hydro-Electric Scheme*, Sydney, National Occupational Health and Safety Commission, 2000.

Cold War industrial politics had polarised political possibilities, this emergent, migrant friendly unionism of Bielski was prevented from reforming the AWU.

Menzies' attempt, arguably, to further 'the split' by exposing the New South Wales AWU to pressure, via a transfer of Snowy workers to the Commonwealth industrial jurisdiction, was thwarted, however, by a more united labour movement. In the process, Justice Taylor, as the lynch pin for the AWU in New South Wales, came under Cold War related scrutiny and accusation. Paradoxically, it appears that the large US construction consortia were less willing than Menzies and Hudson to break the AWU's New South Wales jurisdiction for Snowy workers.

The evidence suggests that a more cross-culturally adept Labour movement, symbolised by Bielski, was sacrificed to shore up the political-industrial status quo. AWU influence over and loyalty to the ALP, which stopped the split in New South Wales, partly relied upon ballot rigging and other rorts at the expense of migrant workers. Rather than upending the control of the AWU, Bielski's charges of corruption were ignored by a court prepared to protect the existing clique rather than risking a 'left' take-over via, or, consequent to Bielski. Under it all, after having sought internal reform and after having been intimidated, Bielski reacted against union management. His migrants union began to threaten radical separatist political action whilst remaining open to all.

Similarly, spinning reserve, as a potential container of differences, also suggests that further socio-technical relations of inclusion be addressed, including a gender critique of the Scheme. The work of Jocelyn Henderson was significant as it contested not only the privileged, public corporatism of the men but their preference for overarching systems. Throughout the histories of the Scheme, the role of masculine daring has, in fact, been prominent, especially in the filmic representations. Via a critique of this 'frontiersmanship', or via a gendered reading of the filmic and public representations of the predominantly masculine actors, the 'conquering of nature', the extractive approach to the water cycle becomes apparent. The apolitical and determinate planning styles of the men--for example, their priestly metaphors of fact--tended to support a 'realist', masculine role, bolstering their public presence according to dominant styles of public discourse. Further work is needed, however, to elaborate this gendered

critique. Further research is also required into whether women gained access to areas dominated by men, especially the technical engineering work of the Scheme itself.² Because migrant families and their subaltern women were removed by their location in and from construction townships, more work on the conditions of reproduction, of amenities and accommodation, needs to be done.

As the Scheme developed, options emerged that addressed a challenge to the full utilisation approach. Turning again to the metaphor of spinning reserve, especially its last term, we might ask whether instead of treating nature as a 'standing reserve', as a store to be raided, it may be considered whether the Scheme has also been a recycling or sustainable reserve, supporting and improving bio-diverse eco-cultures. Yet the only really significant inclusion of bio-diverse concerns in the Scheme's planning, came with Playford. South Australia, at its lower riverine margin, managed to alter the design of the Eucumbene to Geehi interchange. Although not challenging outflows from the Upper Snowy catchment, it wanted to ensure that water could not flow out of the Upper Murray catchment to the Murrumbidgee. Incidentally, the Kosciuszko Park was also created and a dam on Spencer Creek was avoided.

Nevertheless, the Scheme was designed against variable river flows, introducing a major, cultural geographic re-alignment or 'break', transforming riverine cycles into fordist rivers--containers and conveyors for the cycles of mechanised agriculture. From a regional perspective, the overall result has been that bio-regional aspirations emerged as a device for expanding the scope and power of uniformly systematising and globalising modes of land use.

Within a peak load and base load paradigm of complementary hydro and coal fired power production, the initial construction phase appears as another significant re-alignment. The arrival of the interconnected south east Australian electricity grid is physically signified by the incomplete Kiewa Scheme and the briquette factories at Morwell. System-wise, the re-alignment seemed most powerful to the manufacturing State of Victoria and its hopeful lignite methods. That is, the expanding grid had at least one

². For a substantial beginning, see McGoldrick, Kirsty, *Snowfraus: The Women of the Snowy Mountains Scheme*, East Roseville, Kangaroo Press, 1998.

other means, and therefore one other socially informed choice, as to where and how to persist technologically. With an agribusiness-hydro combination coming forward in concert with a shift to a complementary base/peak load specialisation of generating plant, this also caused a shift for the SECV. Instead of briquetting being the primary area of research, it shifted to examine the problem of pre-drying shafts for coal prior to it being combusted within larger, base load boilers. Such boilers were now being demanded by the new US-style grid--which itself was being installed to complement agribusiness. Consequently, this revised, overall systems paradigm, caused a major reverse salient or frontier of research and development for the SECV to shift.

There was, therefore, no pure systems engineering. Especially given the global and local forces involved, the south east Australian electricity system, in terms of its directions of growth or change, was socially shaped. As the technological innovations of larger dams and boilers were also built, they were shaped by such social forces as directive federalism, corporate unionism and intensified work rates. Overall, via its earlier interest in US planning if not construction methods, 'Bridge Street' asserted itself over the SECV.

Similarly, just as Victoria's State Rivers and Water Supply Commission was forced to take a back seat under Cain during the early to mid 1950s (to avoid splitting Victoria's opposition to the Scheme as planned), Elcom was forced to moderate its liaison with the SECV by the more powerful water bureaucracy within New South Wales. Nevertheless, the intermediate position of Elcom helped it to force a compromise. The revised Upper Tumut project which drew water from the Upper Murrumbidgee (or Tantangara Dam) to intensify flows through the Upper Tumut power stations provided more intermediate power which was much needed by a New South Wales suffering from severe blackouts.

If one puts aside for a moment the ideal, diversifying and inclusive spiral of the spinning reserve metaphor, the rules and processes of federalism stand out as the prime mover in the Snowy context. The Constitution not only provides the States with prime responsibility over resource development but it also, under Section 100, prohibits the Commonwealth from interfering with the States rights over the rivers. When it came to the development of the Snowy River, however, the Commonwealth used the

Seat of Government Acceptance Act, giving it exclusive right to develop the Snowy for power (for the ACT). It had partial financial control, something it used to great effect. It also had the defence powers, under which it has sought to argue that the Snowy Scheme falls to Commonwealth control. Both Coalition and Labor Commonwealth governments have since sought to apply all of these means to ensure the federal Minister has a strengthened hand with the States.

Nevertheless, we have shown that such cross-purpose constitutional difficulties, without matching Commonwealth powers over water, electricity and the environment, aided and abetted the retreat of discussion of design options into the bureaucracy. System-serving expertise from all the resource development departments was forced to play a game of bluff, delay and counter-bluff. Costing criteria, design scenarios, financial resourcing, all become matters of heated internal dispute and delay. With on-going departmental rivalry and thence delayed release of options, public exposure and discussion of issues, such as in the University of Sydney *Current Affairs Bulletin*, was often behind the game, unable to discuss the actual options being considered. Expert officials, even on the same design committees, would also be prevented for years from becoming fully informed, let alone enabling informed politicians and publics of all sides to emerge. In this context, the legitimation crises of representation arose. Photographically, conquering and sublime symbols of engineered order against chaotic nature replaced stories of vying social forces.

An enclosing policy-epistemic order was, in the case of the Snowy Scheme, arguably exacerbated by the narrowness with which 'scientific', rational planning, was instituted. In particular, the complexity of the Agreement negotiations represents a low point in the possibilities of legislative transparency. It was, perhaps, the legislative equivalent of the mish-mash of railways built by competing States. A warren of changing stipulations and qualifications crafted by bureaucrats loyal to given circumstances of financial secrecy between governments was compounded by a directive, largely uncompromising Commonwealth and by their own desires to protect their technocorporate interests. A stand-off federalism, only slowly evolving towards innovative compromise, with every reason for the bureaucrats to insist on extensive legal protections, was the rule. The design emphases or compromises should not have required so many years to achieve.

As disputes over uniform taxation powers and industrial relations were circuitously negotiated via the Scheme, the States did eventually force the Commonwealth to discount the price they would have to pay for the Scheme by 10 or 15%. As a result of the Commonwealth's constitutionally dubious position, the broader prospect of co-operative federalism was adversely affected as a result of the processes of negotiating the Scheme. Although the Scheme was informed by and was informing of broader social processes, the indirectly balanced financial versus resource development powers of the federalist political process worked against fluently and inclusively progressing the often competing claims within a changing world of social, political and cultural values. Democratic processes were often truncated within a set of often overarching, hidden ordering assumptions of scientific design (exclusive of values) and by a strategic minded federalism which, at the same time, it both helped shape and inform. It is difficult to suggest how a broader democratic capacity for technological decision making or an open engineering culture was advanced by this most capital intensive and hence transformative of projects.

Ultimately, perhaps, the Scheme could be judged as it complements the potentials of place. As a massive cultural geographic change to the eco-cultures of south eastern Australia, did its relational--or antipodean--qualities enhance inclusive and sustainable relations of place, or was it a degrading recontextualisation of overseas practices, corrupting the potentials of remaking localities? Technoculturally, outcomes were articulated more by the supposed imperatives of 'the system'. Most significantly for institutional possibilities, political strategies often arose to protect an enlarging system. Defence-related rationales suggest that the Constitution became 'hydro-electrified' as it was interpreted to suit.

With its booming quantitative assumptions of how best to manage riverine and soil resources, the Scheme's public rhetoric appears as either defiantly bold (as in 'Bradfield's boomerang') or far from assured. If the former, the rush to build big and fast may be a mark of its success; its determination to ward off recession under Chifley, its playing off Sterling and US interests under Menzies, signs of its antipodality. Modernisation tended towards

fordist agriculture (and away from manufacturing).³ The London backed Collins House and the fiscally conservative, States rights group was eventually displaced by the modernising, fiscally expansive liaisons of McKell and Chifley and then by Menzies and Fadden who took up the possibilities of State planning and the Keynesian, New Deal possibilities.

Paradoxically, its scale as well as its implicit and explicit anxieties indicate cultural dependence. From Bradfield's millenarian visions to its huge dams, big loans and break-neck speed, the Scheme suggests a measure of desperate occupation. Consequently, the market it provided for large scale extractive equipment and expertise during times of hot and cold war in return for financial support, has corporatised many local capacities-- although how skills were also transformed is far from having been assessed. Nevertheless, its hidden and objective strategies, the denial of indigenous rights, the anxieties of driving hard and assimilating a Cold War, out-worker labour force, similarly speak of a dependency on centres of power. The Scheme continually over-subscribed to (narrowly read) US-style development in its 'search for security'.

Consequently, it was a risky proposition. In a land in need of introduced methods to grow food, the Scheme's cleared lands and irrigated soils impacted forcefully against the (highly) variable-dependent riverine ecologies and on the salt laden terrains of the interior. Running through its history, there has also been a strong strain of cultivating nature to defend a nation. At the same time, especially given the defence-related rhetoric, the economic/military/strategic underpinnings of the Scheme are strong. This massing of machinery in the Cold-war era and the accompanying, often exploitative approach to labour and the environment suggests that the project was profoundly underwritten by strategic ploys. Post-war becomes 'post' war for a nation ill at ease in its geographic locale.

Yet if the five design choices are interpreted according to the critical heuristic spinning reserve, significant counter-vailing influences were also at work. For example, active efforts of remaking away from the compounding of socially and environmentally degrading practices. The technologically deterministic rhetorics of the inevitable efficiencies of

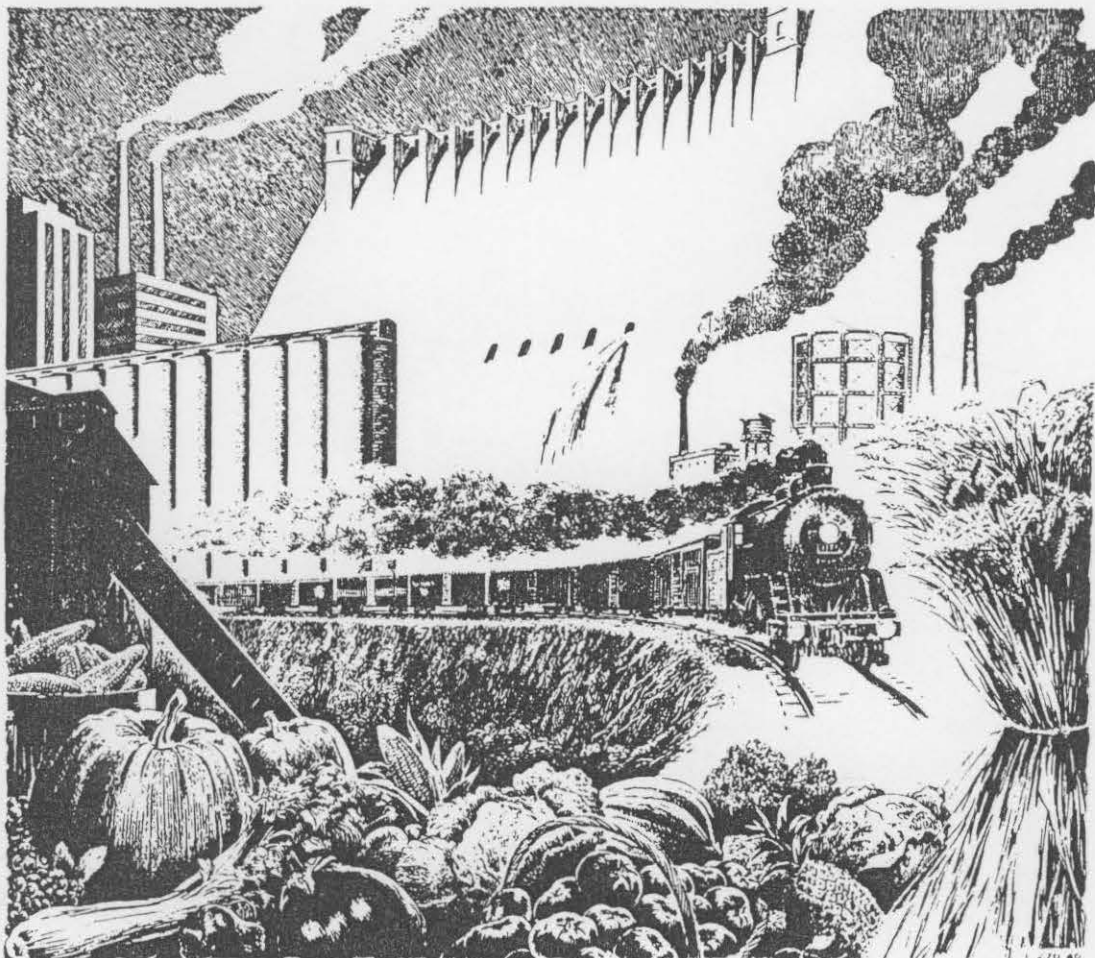
³. For an international history of the emergence and politics of the post war "fordist food regime" see Friedman, Harriet, "A Sustainable World Food Economy" in Keil, Roger et al (eds), *Political Ecology: Global and Local*, London, Routledge, 1996.

ever more regulated or fordist rivers, on occasions, recognised its own limits. Worthy agricultural and energy productivities need not be totalising imperatives (figure 2). Democratic and inclusive community demands for the Snowy River region, as distinct from closed, technocratic regimes, have been noted. The arrival of many migrants to work on the Scheme diversified Australian culture and, eventually, the services provided to workers. Along with migrant workplace initiatives and environmental design challenges, new institutional fora also arose, if too late to be effective at the time. Indigenous land and water rights have continued and have been fought for across the planning and construction histories of the Scheme.

If, however, the Scheme is measured by its commitment to an inclusive and diversifying, living with differences agenda for nation building, then its neglect of indigenous cultural geographies remains a most significant shortfall. As such, with its deeply problematic riverine environmental heritage, too, it fell far short of finding "a way to reaffirm the value of locality without falling into the reactionary trap of blood and soil."⁴

⁴. Williams, Rosalind, "Cultural Origins and Environmental Implications of Large Technological Systems", *Science in Context*, Vol. 6, No. 2, 1993, p. 401.

Figure 2; Advertisement; "Will There Ever Be Enough?", International Harvester, *Murray Valley Annual*, 1951.



Will there ever be enough?

HOW CAN WE produce more food... improve transportation... increase industrial output? These are questions that must be answered because they vitally affect the welfare of nations. They concern the very core of the economic structure and no man can afford to ignore them.

The answers rest in the ability of basic industries to purchase new machines and equipment that will increase capacity as well as maintain and replace old units whenever necessary. Accordingly, it is to the interest of every nation to facilitate the supply of such priority items in order to make this essential equipment available to its producers.

For well over a century International Harvester has confined its activities to production of an ever-increasing variety of *essential equipment for essential work*—machines that make it easier to produce the necessities of life. They are working tools that help in production and conservation of food and raw materials... in transportation of such articles... for development and construction of projects which change the

face of the earth and harness the forces of nature. These products of International Harvester contribute to the well-being and improve the living standards of nations and people everywhere because they help turn shortage into plenty. International Harvester Company of Australia Pty. Ltd. (Inc. in Vic.) District Sales Offices in all Capital Cities : Factory Geelong.

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McCormick International Farm Tractors & Farm Equipment

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Archive material has been the primary source for this thesis especially as it has thrown light on the processes of decision-making within the context of an evolving post-war federalism itself, influenced by the negotiations germane to the Scheme. For particular files also see footnotes. Note that the references below deal mainly with files up to the early 1960s only.

*** Commonwealth**

Given the long running and inter-linked aspects of decision making, the Commonwealth records on the Scheme are extensive. Under Curtin and then Chifley, the primary departments were those of Prime Minister (especially NAA: A461, AJ423 Parts 1-5 & NAA: A462, 318/2-5), Post War Reconstruction (series NAA: AA1971/66 & CP194 & CP43 & MP679) and the Department of Works and Housing (NAA: MP831, 1955/714 Parts 1 & 2 & MP 1051, 1955/714 Parts 3-9). Little has been sighted from Defence and the Bureau of Agricultural Economics although they may have been important policy fora. The Department of the Interior also played a role as did the Attorney General's Department (series NAA: A432 & A469 & M1505) which became more involved as did Treasury, especially under Menzies via Fadden (series NAA: A571/149 & A571/164).

Under Menzies, the Department of National Development replaced the roles of Post War Reconstruction and Works and Housing. The Ministerial files of Senator Spooner (NAA: CP608 Bundle 2/1-3 and Bundle 5/-) are also significant although his files are much less ordered than those of his Secretary, Raggatt, and of the Department more broadly (see NAA: A987 'E' series, especially E232 viz 'Agreement' negotiations). Gilfillan has indexed this Departments Snowy files (see NAA: A2618, Folder 10, Document 1223).

Treasury files also burgeoned under Menzies, as did those from the Snowy Mountains Hydro Electric Authority itself (series NAA: A2915, A5628, A5638

etc). These files cover an enormous range of relevant activities, with selective review being necessary. Everything from health and safety, pictorial and filmic activities, the dealings with Adaminaby residents, to the more bureaucratic dealings between governments and the technical-economic issues faced by the engineers themselves, are included.

* New South Wales

The Premier's Department files are un-ordered and patchy but provide important links in the negotiations (Premier's Dept; see selected files from series 13/17020 to 17022 and 64/1142A). New South Wales initiated the project under McKell and then was the prime recipient of water and power. Its continuing and often strained negotiations with the Commonwealth are crucial. The principle departments were those of the Water Conservation and Irrigation Commission (series SRNSW: 18/1581 onwards), the Electricity Commission of New South Wales, Elcom (Pacific Power: see series 18/2206 & 18/2285) and the Public Works Department (see series 18/4023 & 27). The PWD files were only beginning to be transferred when checked. The Departments of Local Government and of Conservation also played roles, although their files have not been as extensively investigated.

* Victoria

The Premier's Department (PRO VPRS 1163/P: 46/2405, 52/4432, 55/4546, 58/1620, 59/929) and Attorney General's Department contains important files but the bulk of relevant material, which is well indexed, is from the State Rivers and Water Supply Commission (PRO VPRS: 6008; 46/12400, 47/7787, 50/4912, 53/26771, 56/39534, 58/6660, 58/6888--and others) and the State Electricity Commission of Victoria (PRO VPRS: 8892/P1, 640-660).

* Regional/Aboriginal/Other

Records from regional centres are important sources given the links between the Scheme and regional development (and also see Post War Reconstruction files). Charles Sturt University (Wagga Wagga) provides files on the Murrumbidgee Valley Water User Association (meeting minutes, 1945-53; RW5/133), 120 boxes on the Murray Valley Development League (RW214) and other relevant material. The Murray Valley Development League has offices in Albury. Unfortunately, however, many

records from the Eden region were destroyed in the early 1990s as this town's administration amalgamated with Bega. Community libraries such as those at Tumut and Albury offer leads into local resources and often Aboriginal related sources. Latterly, local land councils or similar should be consulted. The Noel Butlin Archives (ANU) also contains some material in its union collections (AWU, ACTU, BWIU).

* South Australia

Playford, the long-running Premier of South Australia, and his water bureaucracy, played an important role in the closing stages of the Agreement negotiations. This thesis has relied upon Commonwealth archival sources for this matter (NAA: A1209/115, 1956/1872 Parts 1-7). South Australian files have not been reviewed.

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Screen Sound Australia (previously the National Film and Sound Archives) contains copies of many films as do the Snowy Authority (see bibliography by Ramsey) and the National Archives of Australia (in both Sydney and Canberra).

The pictorial collection the National Library has photos by Wolfgang Sievers on the Scheme. The section also contains photos of old Adaminaby and further material. A slide collection of 'technical travelogue' slides of the Scheme has also been acquired. See their 'Images 1' website for this and further material.

Much popular culture material--magazine articles and images--of the Scheme is listed in Gilfillan's bibliography (see above). Also see;

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