



Original research article

Battling the tropics to settle a nation: Negotiating multiple energies, frontiers and feedback loops in Australia

Lauren Rickards^{a,*}, Elspeth Oppermann^b

^a Centre for Urban Research, School of Global, Urban and Social Studies, RMIT University, Melbourne, Victoria, 3001, Australia

^b Northern Institute, Charles Darwin University, Darwin, Northern Territory, 0909, Australia



ARTICLE INFO

Keywords:

Tropics
Heat
Electricity
Australia
Settlement
Climate change

ABSTRACT

Multiple forms and spaces of energy are enrolled in nation-building projects. In this cross-disciplinary paper, we outline how struggles to govern the relations between climate and the human body have shaped nation-building efforts and electricity infrastructure in the settler-colonial society of Australia. Focused on Australia's tropical zone, notably the hot, recalcitrant, militarized region of the Northern Territory, we explore how questions of climate have slowed, undone and accelerated efforts to securely settle its capital city, Darwin. In doing so, we highlight the multiple links between electricity infrastructure and air-conditioning that have made it possible to hold 'climate' and 'body' together, co-producing indoor microclimates and habitable territory while contributing to the warming climate that is now raising questions about the limits of this electricity-enabled habitability. By examining the intersecting spatialities of electricity, we help advance more 'thoroughly geographical' (Bridge, 2018) accounts of the relation between energy infrastructures and nation-building, highlighting the multiple forms, frontiers and feedback loops through which energy – broadly defined, as foundational category – acts as hindrance, enabler and side-effect of nation-building projects. We show how this perspective reveals troubling paradoxes and tensions, including accelerating feedbacks between energy use and climate change extending far beyond Australia's borders.

1. Introduction

In 2016, Exercise Kowari brought American, Chinese and Australian troops together to practice survival skills in the Northern Territory (NT), Australia. According to their survival specialist, 'The primary objective', was for them to 'learn how to manage heat'.¹ Trying to avoid heat is the way many of us manage it, notably by staying inside cooled microenvironments. In the tropics of northern Australia (Fig. 1), where the NT is largely positioned, keeping cool is core to normal life. Although military training makes a merit of the region's heat, it is more commonly framed as a liability. Or at least it was, until the American idea of air-conditioning and related technology and electricity infrastructure was introduced, making the settlement of NT, especially its capital city Darwin, feel feasible. While the struggle to place the NT's capital city of Darwin on the map may now seem over, increasing temperatures and other climate change effects now threaten to undermine the sufficiency and reliability of electrical flows in the region, with far-reaching implications for Australia's anxious nation-building project.

In this paper, we discuss electricity in Darwin to explore how

climate, notably tropical heat, has acted as a brake, threat and driver in relation to energy infrastructure and nation-building in and beyond the subnational region. In presenting this case study we highlight the multiple powers, energies, frontiers and feedback loops involved in Australia's nation-building effort and the way in which energy – broadly defined – acts as hindrance, enabler and side-effect as well as output in ongoing nation-building struggles. Drawing on energy geography, postcolonial studies, climate change research and urban studies, we bring together historical, cultural, political, economic, sociological, medical and military aspects of nation-building to highlight how fundamental the question of energy is at multiple scales, from the bodies of electricity maintenance workers, to the reach of transnational fuel transportation, and from colonial era syntheses of nations' climatic and corporeal energy, to contemporary maps of future climates. In these ways, we work across scales, spatialities and temporalities to help develop 'more thoroughly geographical accounts of energy systems' and insights into the ways in which they have and may change [1] (p. 8).

We begin by outlining how a consideration of the relationship between climate (heat specifically) and energy (electricity specifically) deepens our understanding of the multiple spatialities of energy

* Corresponding author.

E-mail addresses: Lauren.rickards@rmit.edu.au (L. Rickards), Elspeth.oppermann@cdu.edu.au (E. Oppermann).

¹ <http://www.abc.net.au/news/2016-09-08/exercise-kowari-troops-return-after-learning-new-skills/7828044>.

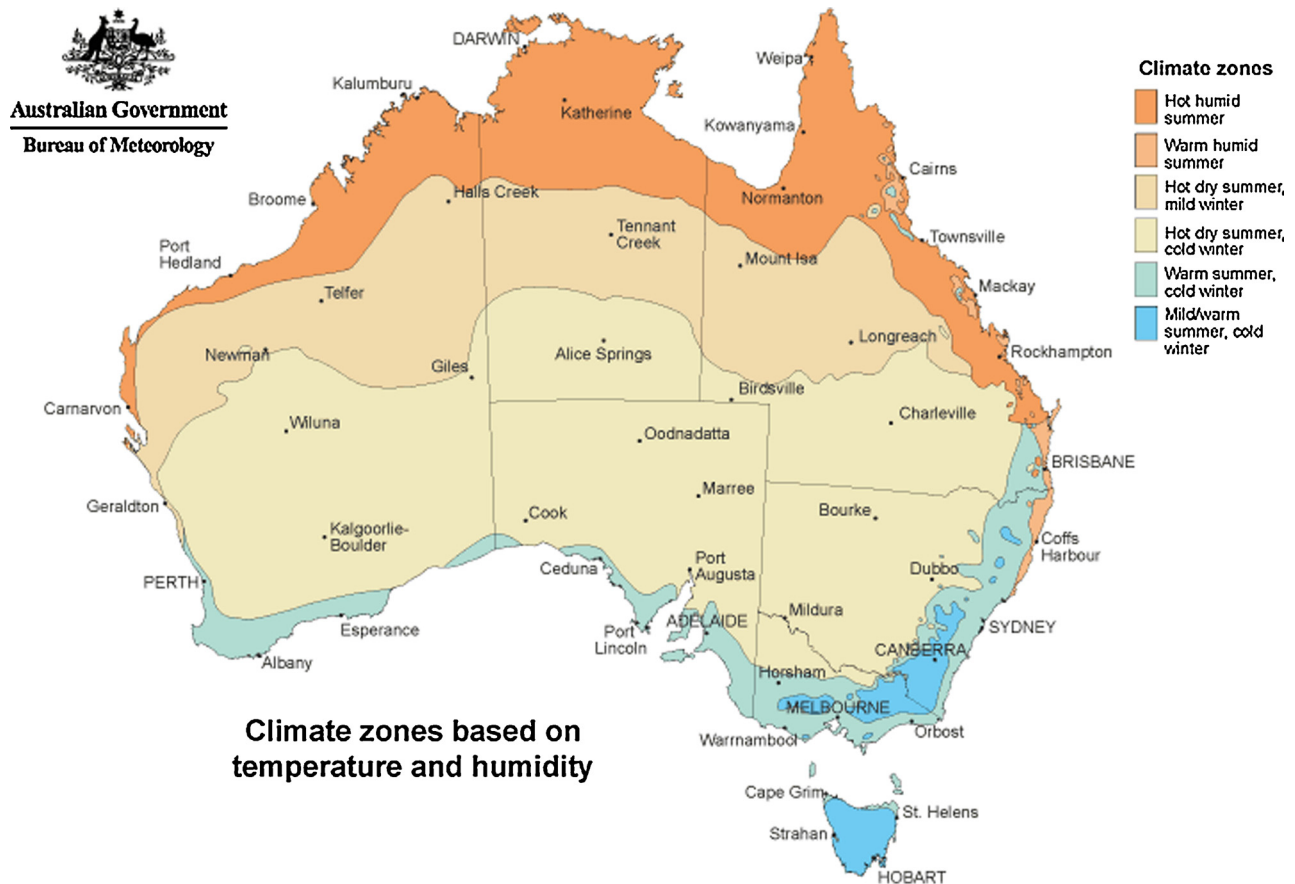


Fig. 1. Current spatial distribution of Australia's climate zones.

systems, including not just the nation or the globe but the subnational region, the city, the building and the neglected topic of the body, notably the environment-physiology relation that helps analytically connect discussions about energy production and consumption. We then draw on a range of secondary sources to examine these intersecting spatialities through the case of the NT, where British colonial concerns about the specific relation between the tropical environment and human bodies slowed the spread of electricity infrastructure, threatens its continuity, and is driving its development as military, economic and amenity needs within and beyond the NT converge. To conclude, we summarise our three main contributions.

2. Foundational energy: nation, infrastructure, bodies

Social science scholarship on energy tends to focus on the concentrated, inanimate sort. But Matthew Huber has recently called for political ecological scholarship that approaches energy as 'a foundational category of analysis' (p. 488). By talking about foundations, Huber is not only pointing to the *significance* of energy to contemporary industrial society. He is also pointing to the way an energy orientation can reveal the pervasiveness of energy, its multiple forms and arenas, and the commonalities and direct links between them. Together they produce space at different scales and are entwined and mediated 'by history, culture, and politics' (p. 488). In this paper we take up Huber's challenge and extend his focus beyond geological and ecological energetic relations to questions of the atmospheric and biological. In doing so, we emphasise the role of not just history, culture, and politics but infrastructure specifically. In this section, we provide a brief, historically based discussion of the question of (1) nation, (2) infrastructure and (3) bodies to explore how they are bound in multiple ways by the question of energy.

2.1. Constructing nations amidst the climate-body relation

Nation-building has long been fuelled by the use and accumulation of energy as a resource, whether that energy be animate biological forms of energy such as animal or slave labour, or inanimate geological forms of energy such as oil (see [2]). All over the world, people, animals, machinery and other resources have been assembled into particular configurations to produce national economies and territory. But as studies of European empires and settler colonialism makes clear (e.g. [3]), many of these nation-making processes were and are positioned in wider imperial circuits in which a further question of energy was and remains a key consideration: climate. As they traveled beyond their home temperate territories, imperial explorers encountered new tropical climates seemingly saturated with excessive thermal energy. These embodied experiences stimulated debate about the effects of climatic conditions on human bodies, civilization and settlement. Verdant tropical landscapes seemingly promised enormous economic and territorial potential *if* the negative effects of the strange climate on would-be settler populations could be managed. The colonial notion of 'tropicality' juxtaposed the 'unhealthy, unbearably hot and uncivilised' tropics [4] (p. 1198) to 'the perceived normality of the northern temperate zone' ([5] p. 2). Some doubted white Europeans could exist in the excessive temperatures and humidity of the tropical climates without degenerating, casting into doubt the whole colonial settlement project [3,6].² With these unsettling question marks over the once presumed inherent superiority of Europeans over racialised Others, Europeans' capacity to manage environmental thermal energy emerged as a key focus for debate, anxiety and effort.

² The links between climate and colonialism are entwined with questions of race being debated at the time. For more on this, see McGregor [3].

Download English Version:

<https://daneshyari.com/en/article/6557402>

Download Persian Version:

<https://daneshyari.com/article/6557402>

[Daneshyari.com](https://daneshyari.com)