Moved by fire

Green criminology in flux

Kajsa Lundberg

The University of Melbourne, Australia

Abstract

The destructive bushfires in Australia 2019-2020 resonate with similar trends around the world as bushfire seasons are becoming longer and more pervasive. Yet, criminological analyses of bushfires are limited and tend to focus on the individual criminal subject and the act of arson, the crime of intentional fire starting. Encouragingly, green criminology, the criminological perspective dealing with environmental crimes and harms, is expanding the categories of offenders and victims of harm by, for example, highlighting non-human victims and harms perpetrated by the capitalist system. Nonetheless, even this perspective is inadequate to deal with the complex and ultimately mobile events of fire and their far-reaching consequences. This article brings green criminology in flux by drawing from the 'new mobilities paradigm', emphasising motion, temporality and the mobility of contemporary life. The new mobilities paradigm, or the 'mobility turn', has a lot to offer green criminology as is demonstrated here by way of scrutinising the mobility of fire. A mobile green criminology will help trace fire beyond static categories of offenders and victims and open up for more flexible and mobile categories of environmental harms as constructed, complex and unstable events. Finally, a mobile analysis allows for a more complex and meaningful reading of criminological space, demonstrated by the relationship between social, aesthetic and cultural values of land, politics, power and fire-related behaviours, such as fire suppression or Aboriginal peoples' cultural burning practices. It is argued here that in order to understand the complex nature of fire, green criminology must attune to the intersections between fire, space, mobility and meaning.

Keywords

Bushfire, Cultural burnings, Fire, Firestick farming, Green Criminology, Meaning-making, Mobile Criminology, Mobility Turn, New Mobilities Paradigm, Space

Introduction

Summarising 2019 in 5 words, following the popular hashtag #2019in5words, Greta Thunberg, an environmental activist from Sweden, wrote on Twitter 'Our house is on fire' (Thunberg, 2019). This speaks to what many people directly affected by bushfires have experienced around the world during recent years. In 2018, Sweden, home country to myself and to Greta Thunberg, experienced some of the worst bushfires recorded in modern history. In a country which usually experiences quite underwhelming summers, Sweden saw parts of its forest burn during an intensely hot and dry summer (Harris, 2018). This article sets out to think criminologically about such bushfires (unplanned fires in shrub, grass, and forests). Bushfires (also called 'wildfires' in some locations) have been featured prominently as evidence of catastrophic environmental harm arising from climate change.

In 2018, bushfires burned along the coast outside Athens, Greece (Taylor-Coleman, 2018) and the casualties of fires in California surpassed previous numbers (Nicas and Fuller, 2018). Another devastating fire season occurred in 2019 in California, as well as in Russia, Lebanon, Indonesia and in the Amazonas. And in early 2019, Australia burned (Paddison, 2019). In these devastating events, the saying 'our house is on fire' applies to the increasing amount of people who have had to leave everything to escape flames moving towards them and their properties. But it applies equally, and on a much larger scale, to non-human life on Earth, with their habitats consumed and wildlife left disoriented, vulnerable or dead.

Traditional criminological perspectives tend to examine bushfire as arson (Cozens and Christensen, 2011; Andrews, 2011). Green criminology, however, can expand how we think about categories of harm, offender and victims in relation to such fires (for example Agnew, 2012; Brisman and South, 2018; Sollund, 2017). In this article I add to this perspective by drawing from work in social sciences known as the 'mobility turn' or a "'new mobilities" paradigm' (Sheller and Urry, 2006: 208). Challenging the a-mobility of traditional social sciences that tend to ignore the importance of movement in everyday life (Sheller and Urry, 2006), recent work on mobility has shifted the epistemological understanding of reality by concentrating on motion and temporality (Adey, 2006; Sheller and Urry, 2006, 2016). In this paradigm, events can be conceptualised as taking place in unstable and mobile spaces made up of complex arrangements of culture, meaning, politics, bodies and movements.

In this article, I argue that scrutinising the mobility of fire helps us better understand the fire events increasingly facing Australia and many other places in times of climate change. The mobility of fire is what allows us to transfer a spark from the match to the firepit, but it is also the reason fire can come to devastate a large forest or burn whole communities to the ground. Fire becomes problematic when it travels to unwanted places at uncontrollable and destructive speeds. Such a perspective highlights the ways fires spread, and their consequences, the predicament of when and how to evacuate, and the connections between local and global conditions and harms. The result is a more complex reading that goes beyond static conceptions of both offender and victim, expanding both the traditional and the green criminological conception of harm. This article argues that green criminology would benefit from a *more mobile* conceptualisation of harm and its effects. Incorporating mobility into the criminological analysis allows us to understand harms as constructed, complex, unstable events that exceed traditional criminological disciplinary boundaries.

The house is on fire

For about 400 million years, Earth has burned. Many ecosystems depend upon fire in the wild (Bowman et al., 2009), while some species perish in the fire, others flourish. Since humans are the only species to kindle, sustain and actively spread fire to new areas of land, fire's history is heavily entangled with our own (Pyne, 2001: xv). Indigenous Australian cultures are particularly connected with fire, which apart from being used for heat, cooking and light, is commonly used in ceremonies and in maintaining the health of country (Rose, 1996: 64). Localised and contained fires are essential for human settlement such as the cooking of our food, the heating of our houses and the burning of our rubbish. Although modern forms of combustion in many places are taking over after the traditional fire hearth, the processes are largely the same (Pyne, 2001). These forms of controlled combustion contribute to human survival around the planet, but large and uncontrollable fires are a threat to property, wellbeing and lives. The distinction between the fires that contribute to human settlements and those that threaten the same, I argue in this article, should be analysed in terms of fire's mobility.

In early January 2020, Australia was in the grip of an extraordinary fire season, as evidenced by the scale of the blazes and the fact that unusually large bushfires were burning simultaneously in various parts of the continent (Boer et al., 2020). 2019 was the warmest year recorded in Australia with a 1.52 °C increase in temperature above the average national mean and the driest year recorded with 40 percent below average rainfall. This resulted in significant droughts in New South Wales and southern Queensland (Bureau of Meteorology, 2020). These extreme conditions set Australia up for the worst fire season in history. In addition to the scale and widespread nature of the fires, a remarkable aspect of the Australia bushfires was their location in the eastern part of the country around major human settlements such as Canberra and Sydney. Moreover, Aboriginal peoples were deeply affected by the 2019-2020 fires. Williamson et al. found that 84,000 Indigenous people, representing one quarter of the entire Indigenous population in the two Australian States Victoria and New South Wales, were affected by the bushfires (2020: 3). In addition, areas that would normally be wet, such as rainforest, eucalyptus forests and banana plantations, burned (Morton, 2019). Air toxicity reached levels that were many times worse than 'hazardous', due to the extent of smoke pollution around the country, particularly affecting the young, the old and the sick (Morton, 2019).

This terrible fire season started early in September 2019, with multiple fires burning in the state of Queensland. In October 2019 lightning struck north-west of Sydney, which led to the start of the Gospers Mountain fire, a massive blaze that later joined forces with other fires on the Central Coast of NSW (Morton, 2019). In November 2019, fires in the state of New South Wales spread to the outer suburbs of Sydney and on the 11th of November the state announced, for the first time in a decade, a 'catastrophic' fire rating (Parsons and Goldman, 2020). Two huge fires burnt around the coastal town of Port Macquarie and fires broke out in the Blue Mountains, a popular tourist destination outside Sydney (Evershed and Ball, 2019). By November, Queensland had announced a State of Emergency, and severe fires were also burning in South Australia and Western Australia (BBC News, 2019). By February 2020, 33 human lives had been lost and more than 2,500 homes destroyed, most of which were located in New South Wales (Huf and Mclean, 2020: 1). The magnitude and spread of last summer's fires indicate enduring changes in fire regimes as a result of climate change (Nolan et al., 2020: 1040).

These extreme fire conditions might well be an indication of what is to come. Nonetheless, many voices denied the impact of climate change in connection with the Australian fires. During the 2019-2020 summer numerous commentators (including Liberal MP Craig Kelly, Liberal senator Eric Abetz and National MP George Christensen) categorised the various blazes as acts of arson rather than the effects of climate change. These assertions were contradicted by the Victoria Police and the Country Fire Authority, which nominated lightning strikes as the most common cause of the fires (RMIT ABC Fact Check, 2020). To place blame on the lone offender is, however, a strategy commonly attempted in order to avoid acknowledging structural causes of harm with roots in the liberal market economy and consumption habits.

Traditional vs green conceptions of fire

Conventional criminology tends to view the world in oppositions between offender and society, where the role of the state is to protect the society from those committing harms. The criminological literature on arson, the deliberate lighting of fires, is often centred on the psychopathology of the arsonist, their personality, and the motives that drive them to offend (Cozens and Christensen, 2011; Andrews, 2011; Kocsis and Australian Institute of Criminology, 2002). To step out of this narrow way of conceptualising the criminality of fire, green criminology (for example Brisman and South, 2013, 2018; South, 2014) contributes with a wider definition of victims as including humans and non-human victims (for example on illegal wildlife trade: Sollund, 2017; and on speciesism: Beirne, 1999). This is a broad paradigm incorporating analyses of causes, effects, responses, representations and prevention of such harm, highlighting among other things how colonial capitalism, resource extraction, carbon generation and consumerism contribute to environmental harms and victimisation (Brisman, 2012; Brisman et al., 2017; Ruggiero & South, 2013a, 2013b).

There are, however, divisions within green criminological perspectives. Whereas some argue for expansions within the criminal justice system to account for broader conceptions of harm to the environment (for example Hall, 2014; Lynch et al., 2013), others, often from more critical perspectives, consider law as offering inadequate categories in order to understand such harms (for example Agnew 2012; Lynch and Stretsky, 2003; White, 2008). Thus, while conventional criminology centres on the

offender of the fire event, green criminology places more emphasis on the causes, consequences, victims and prevalence of these events. Green criminology also takes (as noted in Brisman and South, 2018: 2), what we might call a 'climate justice' approach, highlighting the unequal access to environment and impact of climate change and other forms of environmental harm (Agnew, 2011: 26; Brisman and South, 2018: 5).

Sollund reminds us that just as there is an 'ideal victim', as identified by Christie (1986), there are 'ideal offenders', and other, less ideal ones such as corporations, the everyday consumer (Sollund, 2017: 252) or the state. The arsonist, however, is an ideal offender on whom we can impose blame, deflecting attention from other forms of blame and responsibility. Missing is an understanding of environmental harm that goes beyond a central focus on offenders in order to examine the full extent and complexity of such harm. Environmental harm is a complex, mobile event; indeed, it can be imagined as a *process*, both in terms of its definition, development, consequences and response.

Conceptualising harm as process rather than simply as event acknowledges that harm typically does not have particular beginning or end nor a definable boundary between harm and non-harm. Such a conceptualisation can help us move beyond binary oppositional conceptions of nature, subjectivity, offender, victim and so on and instead seeks, following Halsey, to 'capture the inter-subjective, inter-generational, or inter-ecosystemic processes which combine to produce scenarios of harm' (2004: 835). McClanahan similarly critiques the binary oppositions between nature/culture and instead encourages an understanding of ecology as containing both 'culture and humanity', ideas that echo non-western conceptions of nature (McClanahan, 2019: 14; see also Todd, 2015, 2016). This perspective allows an examination of harms of non-intentional bushfires (that is, bushfires that were not individually lit), and provides a better understanding of fire's mobile trajectories after the point of ignition. To demonstrate this, I examine the movements of the 2019-2020 bushfires in order to communicate a new mobile perspective on environmental harms such as fire.

Tracing the mobility of fire

The mobile turn emphasises the mobility of contemporary existence, including the movement and global flows of capital, commodities, culture and information (Molz,

2006: 377). However, the new mobilities paradigm refers to more than the declaration of a more mobile way of life. Rather, it is a 'broader theoretical project aimed at going beyond the imagery of "terrains" as spatially fixed geographical containers for social processes and calling into question scalar logics such as local/global as descriptors of regional extent' (Sheller and Urry, 2006: 209). It provides a critique of earlier theories that have marginalised mobility to the periphery of social sciences (Adey, 2006: 77). The new mobility turn recognises that not only is the world in motion but also, drawing from Deleuze, so are concepts such as 'truths' and reality (1986, 2004[1994]). In addition, 'mobilities research interrogates the master frames and cultural narratives that link mobility with freedom' and questions the ethics of unequal access to mobility and the environmental impact of transport (Sheller and Urry, 2016: 12).

The world thus cannot be understood as fixed; instead it is always in flux, and the mobile analysis takes seriously the human aspect of mobility, the representation of meaning, and the experiences accompanying movement (Cresswell, 2010). The mobility turn is therefore far more than just another new paradigm; rather it derives from an epistemological shift in how we understand reality, entailing new methodological approaches that prioritise mobile phenomena (Franquesa, 2011). Research attuned to movement contributes a more 'nomadic' view of the world, recognising fluctuations in social reality. Relatedly, Braidotti's writings on the 'nomadic subject' features the fluidity and multiplicity of subjectivity where the 'self' is understood to be in constant change (2011: 306). Such work poses new questions, articulates new challenges and necessitates new methodologies and theories (Sheller and Urry, 2016: 210). The challenges posed by this perspective are severely underdeveloped in criminology. This article contributes to the endeavour of filling this gap giving an example of the potential of a more mobile criminology.

Whether a fire is started by an act of arson, faulty powerlines or lightning strike, an out of control fire threatens the freedom and wellbeing of many people and other species. Examining such fires through a mobile lens is to scrutinise the way fire travels (or does not), is contained (or not), and takes account of the complexity of fighting fires on multiple sites as well as the concomitant problems of evacuation during fire. In the summer of 2019-2020, many thousands of people were forced to evacuate due to fires around New South Wales and Victoria. Traffic jams were created as whole towns attempted to escape before the fire reached them, bringing a taken-for-granted

movement to a standstill. Simultaneously, many major roads were closed for weeks due to nearby fires (Gramenz, 2020), and later due to damage caused by fires that burned across them.

Deciding when to evacuate during a bushfire is another complex matter. When are people encouraged to leave and when are they told to stay put? Early evacuation is the safest option, however, in fire-prone areas many residents avoid evacuating until fire danger is confirmed and real (Haynes et al., 2010). It is dangerous to stay and 'defend' property from approaching fires; many, however, decide to do so although not adequately prepared.¹ To stay and defend or to leave early are decisions directly tied up with mobile capacities. How rapidly is the fire travelling, does a family have a car, is a road blocked by fallen trees, will we have time to move out of the fire's way? To understand the act of evacuation and the criminologically relevant aspects of death, harm and loss, mobility must take centre stage.

On January 2nd 2020, the Victorian Premier Daniel Andrews declared a State of Disaster for large parts of Victoria. Following the deadly fires in 2009 known as Black Saturday, this authority was accorded to the Premier when lives and properties are considered to be in grave danger. The State of Disaster is, unless otherwise declared, active for seven days and it gives the government a number of supplementary powers, including among other things, control of all movements within the prescribed area: this can involve the forced evacuation of people (Victoria State Government, 2020). The state of emergency or the state of exception, a term coined by the German political theorist Carl Schmitt, is a proclamation that circumstances are out of the ordinary, justifying extreme state measures (2005[1985]). Agamben, developing Schmitt's ideas, highlights how the state of exception comes to justify exceptional measures that entail an increase of powers and the sovereigns are those with the power to declare this exception (2005: 35). The state of emergency is typically used to justify intrusive policing practices (Wall, 2016) such as the war on terror (Neocleous, 2008), it is drawn on in relation to natural disaster, including bushfires, and health emergencies such as COVID-19 (WHO, 2020).

Neocleous highlights a process of normalisation in relation to emergencies and emergency powers (2008: 39), the emergency 'appears to have quickly become a permanent feature of the political landscape' (2008: 40). Relatedly, Moran et al. identify a lack of attention to the links between mobility and power within the mobility

literature. Following philosophical work by Deleuze and Guattari (1986), many scholars equate mobility with power and liberty (Adey, 2006: 77); overlooked is mobility that is coerced or forced (Moran et al., 2012: 447). Mobility can thus be an 'instrument of power', with different forms of coerced mobility (Moran et al., 2012: 447). The State of Disaster permits an instance of such coercion, as the emergency response follows its own emergency rules, discursively warranted by the exceptional circumstances in question. A mobile green criminology allows a closer look at the forced movement of bodies arising from forced evacuation during fires or other emergencies.

Another way to conceptualise movement is through rhythm. Lefebvre's understanding of rhythm is as that which connects time and space in everyday life. Rhythm refers to repetition of movement and the presence of 'strong' and 'weak' times (Lefebvre, 2004: 89). Rhythm is therefore the coming together of different times, 'a qualified duration' (Lefebvre, 2004: 89). The everyday contains both cyclical (natural) and linear (rational) rhythms. While linear repetitions are found in social life, including repetitive actions and movements, cyclical rhythms originate in nature, such as the dawn returning each day (Lefebvre, 2004: 15). Fire, just as other spatial components, can be conceptualised in terms of the rhythm of its movements. There is a cyclical pattern to fire: in Australia, each year there are 'fire seasons', and some parts of the country experience outbreaks of fire at regular intervals. Sometimes the rhythms of fires are in line with the rhythms of human movements, allowing us to move together and even to benefit from the movements of the other. Examples are fires utilised to clear land and to boost agriculture (Pyne, 2001: 65). Other times, the rhythms are off beat, disruptive, or even harmful.

Adey's work illustrates the difficulties in reconciling *immobility* within the mobility turn. He notes correctly, 'if everything is mobile, then the concept has little purchase' (2006: 76). Instead, we must look at how something can appear mobile but also be viewed as solid (Adey, 2006: 91). Adey believes that tensions between mobility and immobility are important in order to understand the construction of space and social life. He applies Urry's concept of the 'mobility/moorings dialectic', where 'there can be no movement without context, without something to push off from' (Adey, 2006: 86; see also Urry, 2003). In order for something to happen, there must be some friction and 'there has to be some form of stability to generate such complexity.' Thus, stability is necessary to give mobility meaning (Adey, 2006: 86). There is no utility or meaning in

examining mobility if it cannot be contrasted with stability. In the context of fire, combustion is a mobile process, a series of quick chemical reactions that produce heat and light (Stollard, 2014[1991]: 1), and stasis could instead denote fires that are contained within fixed parameters – a ‘contained’ or ‘controlled’ fire. In contrast, mobility is the element that sees fire transitioning across different containment lines or shattering all forms of restraint.

An alternative and perhaps complimentary idea can be found in Virilio’s work on speed. Writing slightly before the peak of mobility scholarship, Virilio examines speed which he sees as driving the world forward through the advancement of war technology (2006[1977]). It is true that, ‘without the violence of speed, that of weapons would not be so fearsome’ (Virilio, 2006[1977]: 151). He looks at the speed of war but also relates it back to the speed of the city and the movements within it. Speed for Virilio, alters time and space as it maps and remaps the city through ever faster movements (Virilio, 2006[1977]: 158). Although, as outlined above, Lefebvre understands rhythm as that which connects time and space (2004: 89), velocity is another aspect of this relationship. What is especially interesting about speed is that it is made sense of in relation to alternative velocities. The speed of light is at one end of the spectrum and the lack of motion on the other. If you are a pedestrian, cyclists appear to be whooshing past. However, motorised vehicles give cyclists the same speedy impression. Whether humans or other species can escape fire depends on the speed of fire in relation to one’s own. Moreover, if many people, or animals, attempt to escape at the same time, evacuation routes become clogged up and jammed. However, the concept of velocity also has merit at a cultural level. At what speed or perhaps slowness does the concept of climate change evolve in our collective imagination in relation to the acceleration and the speed of environmental harms?

Scrutinising the mobility of fire also highlights the entanglement between local and global events and conditions. The mobility turn emphasises a moving beyond spatial containment of processes and their implications (Sheller and Urry, 2006: 209). A mobile analysis of fire includes fire’s movements and human and animal evacuation but should also take into account larger meteorological patterns. Looking at the atmosphere for example, the polluted smoke haze arising from the bushfires travelled from areas surrounding the fires to cities such as Sydney, Canberra and Melbourne where millions of people came to experience a diffused and dispersed version of the harms of fire.

Moreover, NASA traced the smoke as it moved from the fires in Australia to New Zealand, where it polluted the air and miscoloured the mountaintops. Toxic air from the fires, they also found, was circling the atmosphere and was expected to eventually return to Australian skies (NASA, 2020). Thinking in terms of the mobility of fire thus highlights everything from the smallest movements of bodies to larger meteorological patterns and atmospheric shifts.

A mobile perspective on fire highlights the ways that fire in one location may threaten the health and wellbeing of life globally, thus transcending the traditional criminological view of crimes as contained within particular geographical locations. It also expands the category of victim to the extent that the classification is made virtually redundant. In what follows, by examining the Aboriginal practice of prescribed burnings, I outline how a mobile conceptualisation of space can intersect with an understanding of fire's mobility and immobility.

Controlling fire's path

Aboriginal peoples have lived on the lands of what is now known as Australia for more than 40,000 years. When they first arrived, they brought with them knowledge of how to use fire (Gott, 2005), which they used to cast the landscape in their favour (Pyne, 2001: 35). Aboriginal peoples have always used fire to manage the land's resources, promote biodiversity and to maintain the well-being of ecosystems, a practice known as cultural burnings or 'firestick farming' (Rose, 1996: 63). The burnings support agricultural purposes, preserve biodiversity and resources important for Aboriginal peoples as well as protect lives and properties (Whitehead et al., 2003: 416). For example, some native botanicals, such as eucalyptus and banksia, need fire in order to germinate their seeds (Bell, 1994). In English firestick farming is often described as 'cleaning up the country', an expression with clear associations with a particular aesthetic (Rose, 1996: 65). Aboriginal peoples used to burn the land at regular intervals (Gott, 2005; Griffin and Friedel, 1985; Whitehead et al., 2003) and when they wanted to stop the spread of the flames, they would beat it out with long branches (Gott, 2005: 1204). By the act of burning at different times, normally arid land would come back to life. Land is also burned in a controlled and premeditated manner in order to lessen the degree of fuel on land, creating a natural barrier for fires to spread (Duane et al., 2019;

Williamson et al., 2016). The controlled burnings thus prevented the uncontrollable movement of bushfires. The Aboriginal peoples 'seized the landscape mosaic they inherited and fashioned a new [fire] regime by changing fire's timing, its scale, its frequency, its intensity' (Pyne, 2001: 51). Based on their knowledge of the lands' and fire's characteristics, they could avoid dangerous fires in the process of land management.

Sutherland conceptualises fire as a social encounter between humans and landscapes (2019). What matters in this encounter is how they interact and deal with the other, changed by the processes of the other. Prescribed burning, in this view, is the effort of determining how the encounter will ensue (Sutherland, 2019). Utilising knowledge about the way fire travels has long allowed Aboriginal peoples to predict and intercept its movements. They have understood the threat of uncontrolled movement and have answered with their own fire practices to control fire's potential for future mobility and its related ability to reshape whole landscapes. The prescribed burns, Sutherland argues, 'is an attempt by fire managers to engage with a dynamic and agentic rhythm' in order to 'narrate' the future relationship between people and fire (2019: 782). But while humans can attempt to control fires, human agency over them is limited and fires can escape control (Sutherland, 2019: 783). Despite this limitation, these forms of burning by Aboriginal peoples has been a successful way of controlling the movement of future bushfires, a way of making, to some extent, the movement of fire controllable and predictable.

The facts surrounding Indigenous land management practices invalidate the claim that Australia was *terra nullius*, unowned land, a concept drawn upon to justify the occupation of Australia (Rose, 1996: 64). As the British Crown occupied Australia and robbed Indigenous peoples of their land, Indigenous peoples' role as custodians of the land was largely annulled along with their fire management strategies. European settlers claimed absolute sovereignty over the continent and, as resources were exploited by settlers asserting ownership over the land through force and displacement, a capitalist system developed. Production 'for "commercial purposes"' became synonymous with land ownership which justified the occupation of Indigenous lands (Gibson, 1999: 60). Many Aboriginal peoples lost their lands, and many lost their lives. The incentive and opportunity for Indigenous maintenance of land was interrupted by murder, kidnapping and relocation (Whitehead et al., 2003: 416). This meant that the

landscape moulded by Aboriginal practices was now left without their management (Gott, 2005: 1204). As Europeans settled the land, they also colonialised fire management practices (Sutherland, 2009). The sudden removal of fire from a landscape can deeply shake it: withdrawal of a previous fire regime can have large effects on the ecosystem (Pyne, 2001: 58).

Following the colonisation of Australia, fire was increasingly used in order to clear forests. During the early 20th century, as population density grew, people became less inclined to burn around settlements, and fire suppression became a more common practise (Gillson et al., 2019). The settlers' main fire management strategy was suppression (Rose, 1996: 70), in part, to achieve the monetary potential of the land (see for example Gibson, 1999). The sudden removal of fire from a landscape can destabilise the ecosystem (Pyne, 2001: 58). Along with the disruption of previous fire regimes, shrubs grew, and the fertility of the soil dropped (Griffin and Friedel, 1985: 63), fire-dependent species died out and flammable fuel built up on the surface of the land (Sutherland, 2019: 785). Today, fire suppression represents the dominant fire management strategy in Western societies (Sutherland, 2019: 784); along with global warming, this strategy is considered to contribute to the backlash of increased fires we are experiencing (Gillson et al., 2019) with increased intensity, spread, and frequency of fires.

Colonialism and capitalism, in turn, tend to lead to industrialisation and carbon-intensive economies conducive of anthropogenic, that is, humanly generated, climate change (Whyte, 2017: 154). Increasingly severe bushfire seasons and their disproportionate effects on Indigenous populations, is one of many examples linking colonialism and climate change (see for example, Lewis and Maslin, 2015; Birch, 2016). Indigenous peoples are often already vulnerable due to social and economic disadvantages which is further exacerbated by climate change (Birch, 2016). In addition, their lives, cultures and traditions are deeply entangled with the lands and the seas, which means that climate change threatens most aspects of their lives (Birch, 2016: 93). Some Aboriginal peoples are, or were, nomadic, as they move, or moved, through different areas of the land, caring for country. Nonetheless, Indigenous populations are increasingly experiencing forced relocation, due to bushfires, drought and other natural disasters associated with a changing climate (for example Maldonado et al., 2013; Tsosie, 2007). Such coerced movements lead to lost property, economic

injury and to cultural harms associated with loss of country. There are consequences in terms of the mobility of victims of fire, whether it be coerced by emergency powers or the result of climate disasters. Nonetheless, it is widely recognised that Indigenous peoples, often excluded from conversations, hold a lot of knowledge of country that could hugely benefit populations worldwide to tackle the impacts of climate change (Birch, 2018; Todd, 2015).

The Aboriginal peoples of Australia are not the only ones to have practised prescribed burning, although the rituals around cultural burning are their own. For millions of years, humans moved with fire and often burnt the lands in strategic and purposeful ways (Pyne, 2001: 34). Prescribed burning is now slowly finding its way back into fire management strategies around the world (Gillson et al., 2019). Prescribed burnings are often conducted during autumn and spring when resources are not required for bushfires (Clarke et al., 2019: 149) and most studies indicate reduced harms from subsequent bushfires (Duane et al., 2019; Fernandez-Carrillo et al., 2019). However, a study in Tasmania showed limited benefits. This led researchers to conclude that the value of prescribed burnings varies between different types of vegetation (Furlaud et al., 2018).

Furthermore, prescribed burnings are controversial due to some associated risks. The fire might escape control, destroy habitat, disadvantage some species and the smoke can be harmful (Furlaud et al., 2018). Before burning the location, types of vegetation and weather conditions must be considered for desirable effect and control (Clarke et al., 2019: 148). Consideration of the characteristics of a space, such as presence of people and dwellings, the flora and fauna, the dryness of the soil, and any relevant weather conditions, also emphasise the importance of understanding space in relation to the movement of fire. In order to minimise the harms of fire we need to consider the way fire burns in different places and the way it moves depending on different environmental factors.

Spatiality of fire

Spatial knowledge of the people, movements, cultures, politics and things making up a particular space is necessary for the success of controlled burnings. A mobile conceptualisation of fire expands not just conventional criminological understandings of harm and offender, but also traditional conceptualisations of space. Spatial analyses

have been critiqued by critical criminologists for their simplistic interpretation of space (Coleman, 2005; Hayward, 2012). Hayward considers conventional criminology to lack any complex interpretation of space, 'proceeding with an implicit notion of spatiality that approaches the environment simply as a geographic site and not as a product of power relations, cultural and social dynamics, or everyday values and meanings' (2012: 441). Hayward instead suggests a more complex reading of 'phenomenological place over abstract space', in order to understand the cultural structures underlying crime, disorder, safety and stability. He highlights the value of bringing insight from cultural geography and the spatial turn in social theory into the understanding of the relationship between crime and space (Hayward, 2012: 442).

These ideas have been built upon, in particular, by cultural criminologists. For example, Campbell supplements Hayward's ideas by emphasising the power dynamics, affective and political elements of urban space (2013). Moreover, Young has recently made efforts to bring together spatiality and mobility by examining the encounter with urban crime scenes (2019; see also Young 2014a, 2014b on the public encounter with images). However, fewer criminological studies examine the spatial elements of semi-urban or rural environments. These are significant spaces when tracing the mobility of fire.

The spatial turn can be traced back to work such as *The production of space* where Lefebvre, a pioneer in the spatial turn, highlights the complex processes of spatial production which come to structure everyday life (1991[1974]). Simultaneously, human activity is essential for spatial production. Space, in Lefebvre's view, is an ensemble of relations that both structures and is structured by human activities. The connection between space and bodies is important as he views the energies deployed by living bodies as inductive of the formation of spatial relations (1991[1974]). What Lefebvre introduced was a relational approach to space, seeing space as constantly under construction.

Out of a critical reassessment of spatiality, the mobility turn emerged, similarly challenging the understanding of space 'as a container for social processes' (Sheller, 2017: 628). Mobility theory has brought to spatial analysis an attribution of significance to the complexity of all types of mobilities and their effect on space (and relations within that space) (Sheller, 2017: 625). People are seen as continuously transforming the spaces they inhabit, similar to the way humans have shaped landscapes through fire.

In other words, '(t)he new mobility paradigm argues against this ontology of distinct "places" and "people"' (Sheller and Urry, 2006: 214), maintaining instead that people and places are connected through complex relations and that spaces are conceptualised by the co-presence of people and bodies (Sheller and Urry, 2006: 214). Sheller and Urry recognise that there is 'a growing interest in the ways in which material "stuff" makes up places, and such stuff is always in motion, being assembled and reassembled in changing configurations...' (Sheller and Urry, 2006: 216).

Drawing from post-structural theorists such as Deleuze and Guattari (1986), Adey encourages an understanding of the world as under constant transformation (2006). This perspective views the mobility of people and things as directly constitutive of space, meaning and the relations within that constantly transforming space. I propose that to achieve the goal of a more complex and complete understanding of criminological space (for example, Hayward, 2012), criminology must consider the mobility of space. That is, the way movements affect the production of meanings, powers and culture within space. In short, spatial understanding requires a focus on the mobility in those spaces. A mobile understanding of space fundamentally challenges the view of places and buildings as fixed and highlights the millions of invisible movements that make up spaces. A mobile understanding of space also offers a lot to green criminological understandings of fire and to criminological understandings of the complexities surrounding non-urban spaces.

Importantly, many Australian Aboriginal communities, have a particular attachment and relationship to country which makes for a distinct understanding of space. Country is envisaged as 'a nourishing terrain... that gives and receives life' (Rose, 1996: 7). Country 'consists of people, animals, plants, Dreamings: underground, earth, soils, minerals and water, surface water, and air' (Rose, 1996: 8). Rather than just living on the land, they see themselves as living with country (Rose, 1996: 7). The country depends on the people and the people on the country, if one suffers, so does the other (Rose, 2004: 171). Rose depicts an alternative understanding of aesthetic as 'things that appeal to the senses, things that evoke or capture feelings and responses' (Rose, 2017: 53). Drawing from anthropologist Howard Murphy's work on the Yolngu phrase *bir'yun*, which translates to 'brilliant' or 'shimmering', Rose observes that this aesthetic idea, found in art but also in various other parts of life, brings you into and in touch with 'a vibrant and vibrating world' (Rose, 2017: 53). For example, the rough shapes of a

painting are 'dull', while the details of an artistic work make it 'brilliant'. '*Bir'yun* is the shimmer, the brilliance, and, the artists say, it is a kind of motion' (Rose, 2017: 53). Rose links the *bir'yun* aesthetic with ecology, highlighting the shimmering of the Earth. An ecological pattern making up the shimmer, she writes, is the pulse, such as the pulsating variance 'between wet and dry seasons.' 'Shimmer comes with the new growth, the everything-coming-new process of shininess and health, and the new generations' (Rose, 2017: 54).

In many ways, Indigenous understandings and ways of seeing the world therefore precede many of the ideas expressed in the spatial and the mobilities turn. Indigenous knowledge highlights the relationship between country, people, culture, aesthetics and power; their interdependence and the way that country is transformed and altered through human and non-human activities and events. The pulse that sets off the shimmering of country, for example, resembles the cyclical rhythms conceptualised by Lefebvre (2004: 15). The harmful rhythms of fire, contemplated on above, leave devastation in their wake. Nonetheless, out of fire's ashes new life tends to rise, transforming the land from dull to brilliant. On the same note, Todd writes on the importance of crediting Indigenous scholars (2016). Many of the ideas expressed in the ontological turn such as more-than-human agency, sentient environments and cosmologies made up of complex relationships of human and non-human species are directly linked with the long history of Indigenous knowledge. However, this history is more often than not blatantly bypassed in favour of references to Euro-Western academics (Todd, 2016). Examining Indigenous conceptualisations of country allows me to contrast these and settler values, aesthetics, politics and care and how these correspond to different forms of land management practices.

A full appreciation of fire, I argue, requires a centralising both of fire's mobility and the mobility of spaces. Only by attuning to the intersection of spaces, mobility and meaning can criminology understand the complex nature of fire. The politics of land use, such as the settlement of Europeans on the continent, affect the way we relate to land and fire as seen in the loss of Aboriginal traditions of attending to the land. The politics of space, ownership of land, colonial capitalism, power, aesthetic perceptions, peoples' social and cultural movements, activities and rhythms affect the way we relate to fire in various locations. Human settlements and the values attributed to some places also affect our fire regulating behaviours as fires are suppressed close to cities, on

economically stimulating lands or in places appreciated for their beauty. Since fires often are burning at various places at once, firefighting resources must also be distributed based on the characteristics and the value of spaces. First on the list are human lives, properties, infrastructure, national parks, species habitat and human resource extraction sites. This determines where fire suppression takes place and whether prescribed burnings are implemented (Sutherland, 2019: 789).

European settler aesthetics and capitalist motivations determine fire management strategies, dominated by fire suppression, in lieu of Aboriginal aesthetics associated with cultural burnings and care for country. Earth is 'hemorrhaging species at a rate up to 10,000 times the natural rate of extinction' (Harding, 2009: 107), partially due to improper land management practices and the intensified fire seasons following climate change. Last summer's fires produced the most dramatic loss of biodiversity in Australia seen in decades. Wildlife experts have listed 119 species in urgent need of intervention following the 2019-2020 fires. The list includes birds, mammals, fish, reptiles, frogs, crayfish and more (Woinarski et al., 2020). The victims of these fires thus include human and non-human victims.

The harms attributed to the victims are in part the result of the mobility of the agent of this harm, here exemplified with fire, but the forced mobility of victims is also a central concern in understanding the harms of fire. Moreover, the offenders of bushfires are not necessarily individuals and even if a fire is the result of arson, the effects and spread of fires is the result of much larger processes at play. Colonial capitalism can be considered the beginning of wide-spread environmental harm in Australia, a fact that immediately complicates the binary victim-offender classifications commonly found in green criminology as well as criminology more generally.

Conclusion

Conventional and green criminology both emphasise crime as committed by an offender and causing harm to a victim. A mobile conceptualisation of fire, its victims and the spaces in which fire moves allows criminology to transition beyond such binary oppositions and to more fully explore the movements, harms and consequences of bushfires beyond the act of ignition. A mobile analysis of fire allows progression beyond spatially contained fire events, in order to better understand criminologically relevant categories such as harm, loss and death through analysing their mobile, fluid and global

components. A mobile criminological analysis examines spaces, bodies and movement, giving weight to the complexity of all types of mobilities and their effect on and relations within that space. The mobility of people, fire, bodies and assemblages are directly constitutive of space and the activities and meanings produced there, and the characteristics of space (including political, cultural and territorial features) determine various movements within that space, including fire management strategies. Such an approach requires us to understand the institutional, political, social and mobile components of the land that burns as well as the way fire moves. It requires us to look at the movements of people and places and how those impact on how, when and where fire burns.

When do we stay put and face the fire and when do we evacuate? Fire, mobility, life and death are deeply entangled. A mobile analysis of fire also illuminates the way space is changed by the movements of people and the consequences of human actions. Specifically, fire moves in, leaving some spaces deserted and scorched. Following which, people, animals and plant species slowly make their way back into those places and start the rebuilding process once again. Through the passing of time, these places slowly become reinhabited by plant and animal species. Spaces are thus structured not only by the physical characteristics and human activities but also through the mobility of animals, seeds, weather and fire.

The mobility turn has a lot to offer green criminology, and also to fire prevention and management. Aboriginal fire practices have long appreciated and utilised the mobility of fire to shape the lands across which people travelled. We now live more stationarily and fire, at times, comes to move us. However, examining the mobility of fire could help us predict and intercept fire's routes. Paying attention to the mobility of fire evacuation also contributes new understanding of the importance and complexity of movement, lack of movement and forced movement. How far should individual autonomy stretch in terms of when to evacuate and how extensive are the states' responsibilities? A mobile analysis of fire creates avenues for work examining fire and its movements in other contexts such as bushfires in California or in the UK and their relationship with harms, social life and contemporary policy landscapes.

The value of examining mobility for criminology goes far beyond fire. Mobility should be considered at the core of the criminological enterprise and its focus on social control, exclusion, vulnerability, coerced movement, containment and alienation. Specifically,

forced or 'coerced mobility' seems to sit centrally in the criminological lens (see Moran et al., 2012: 446, 447, 448). The expanded definition of harm, victimisation, and offending that arises when we allow green criminology to think in a mobilised way about fire and environmental disasters such as extreme bushfires could encourage parallel expansion of thinking in other areas of criminological inquiry – if we start to ask new criminological questions about movement, stasis, and flux.

Endnotes

1. This is believed to explain the large number of fatalities during the Black Saturday fires in Victoria in 2009 (Haynes et al., 2010).

References

- Adey P (2006) If Mobility is Everything Then it is Nothing: Towards a Relational Politics of (Im)mobilities. *Mobilities* 1(1): 75–94.
- Agamben G (2005) *State of exception*. Chicago: University of Chicago Press.
- Agnew R (2011) Dire forecast. A theoretical model of the impact of climate change on crime. *Theoretical Criminology* 16(1): 21–42.
- Agnew R (2012) The ordinary acts that contribute to ecocide: A criminological analysis. In South N and Brisman A (eds) *Routledge International Handbook of Green Criminology*. London: Routledge, pp. 58–7.
- Andrews R (2011) Exploring the Impact of Arson-Reduction Strategies: Panel Data Evidence from England. *British Journal of Criminology* 51(5): 839–855.
- BBC News (2019) *Australian bushfires reach Sydney's suburbs*, 12 November. Available at <https://www.bbc.com/news/world-australia-50375407> (accessed 7 January 2020).
- Beirne P (1999) For a nonspeciesist criminology: Animal abuse as an object of study. *Criminology* 37:117–147.
- Bell DT (1994) Interaction of Fire, Temperature and Light in the Germination Response of 16 Species From the *Eucalyptus marginata* Forest of South-Western Australia. *Australian Journal of Botany* 42(5): 501–509.
- Birch T (2016) Climate Change, Mining and Traditional Indigenous Knowledge in Australia. *Social Inclusion* 4(1): 92.
- Birch T (2018) “On what terms can we speak?” Refusal, resurgence and climate justice. *Universitat de Barcelona, Coolabah* No. 24 & 25.
- Boer MM, Resco de Dios V and Bradstock R A (2020) Unprecedented burn area of Australian mega forest fires. *Nature Climate Change* 10: 170–172.
- Bowman DM, Balch JK, Artaxo P, Bond WJ, Carlson JM, Cochrane MA, D’Antonio CM, Defries RS, Doyle JC, Harrison SP, Johnston FH, Keeley JE, Krawchuk MA, Kull CA, Marston JB, Moritz MA, Prentice IC, Roos CI, Scott AC, Swetnam TW, van der Werf GR, Pyne SJ (2009) Fire in the earth system. *Science* 324(5926): 481–484.
- Braidotti R (2011). *Nomadic theory: the portable Rosi Braidotti*. New York: Columbia University Press.
- Brisman A (2012) The Cultural Silence of Climate Change Contrarianism. In: White R (eds) *Climate Change from a Criminological Perspective*. New York: Springer, pp. 41–69.

- Brisman A, Rodríguez Goyes D, Mol H and South N (2017) (eds) Introduction: The Theft of Nature and the Poisonings of the Land in Latin America. In *Environmental Crime in Latin America*. Palgrave MacMillan: UK, pp. 1-9.
- Brisman A and South N (2013) A green-cultural criminology: An exploratory outline. *Crime Media Culture* 9(2): 115-135.
- Brisman A and South N (2018) Green Criminology and Environmental Crimes and Harm. *Sociology Compass* 13(1): 1-12.
- Bureau of Meteorology (2020) *Annual climate statement 2019*. Available at: <http://www.bom.gov.au/climate/current/annual/aus/> (accessed 10 January 2020).
- Campbell E (2013) Transgression, Affect and Performance. *British Journal of Criminology* 53: 18-40.
- Christie N (1986) The ideal victim. In: Antila I (eds) *From crime policy to victim policy*. London: Palgrave Macmillan UK, pp. 17–30.
- Clarke H, Tran B, Boer MM, Price O, Kenny B and Bradstock R (2019) Climate change effects on the frequency, seasonality and interannual variability of suitable prescribed burning weather conditions in south-eastern Australia. *Agricultural and Forest Meteorology* 271: 148–157.
- Coleman R (2005) Surveillance in the city: Primary definition and urban spatial order. *Crime, Media, Culture* 1(2): 131-148.
- Cozens P and Christensen W (2011) Environmental criminology and the potential for reducing opportunities for bushfire arson. *Crime Prevention and Community Safety* 13(2): 119–133.
- Cresswell T (2010) Towards a Politics of Mobility. *Environment and Planning D: Society and Space* 28(1): 17–31.
- Deleuze G (1986) *Cinema. 1, The movement-image*. London: Athlone.
- Deleuze G (2004 [1994]) *Difference and repetition*. London: Continuum.
- Deleuze G and Guattari F (1986) *Nomadology*. New York: Semiotext(e).
- Duane A, Aquilué N, Canelles Q, Morán-Ordoñez A, De Cáceres M and Brotons L (2019). Adapting prescribed burns to future climate change in Mediterranean landscapes. *Science of the Total Environment*, 677: 68-83.
- Evershed N and Ball A (2019) How Australia's bushfires spread: mapping the NSW and Queensland fires. *The Guardian*, 21 November. Available at: <https://www.theguardian.com/news/datablog/2019/nov/21/how-australias-bushfires-spread-mapping-the-nsw-and-queensland-fires> (accessed 6 January 2020)

- Fernandez-Carrillo A, McCaw L and Tanase MA (2019) Estimating prescribed fire impacts and post-fire tree survival in eucalyptus forests of Western Australia with L-band SAR data. *Remote Sensing of Environment* 224: 133–144.
- Franquesa J (2011) “We’ve Lost Our Bearings”: Place, Tourism, and the Limits of the “Mobility Turn.” *Antipode* 43(4): 1012–1033.
- Furlaud JM, Williamson GJ and Bowman DMJS (2018) Simulating the effectiveness of prescribed burning at altering wildfire behaviour in Tasmania, Australia. *International Journal of Wildland Fire* 27(1): 15-28.
- Gibson C (1999) Cartographies of the Colonial/Capitalist State: A Geopolitics of Indigenous Self-determination in Australia. *Antipode* 31(1): 44-79.
- Gillson L, Whitlock C and Humphrey G (2019) Resilience and fire management in the Anthropocene. *Ecology and Society* 24(3): 14.
- Gott B (2005) Aboriginal Fire Management in South-Eastern Australia: Aims and Frequency. *Journal of Biogeography* 32(7): 1203–1208.
- Gramenz J (2020) Major roads closed as thousands flee NSW and Victoria. *News.com.au*, 4 January 2020. Available at: <https://www.news.com.au/technology/environment/major-roads-closed-as-thousands-flee-nsw-and-victoria/news-story/5884afe32359429af35f80b3498f7b6c> (accessed 14 February 2020).
- Griffin GF and Friedel MH (1985) Discontinuous change in central Australia: Some implications of major ecological events for land management. *Journal of Arid Environments* 9(1): 63–80.
- Hall M (2014) The Roles and Use of Law in Green Criminology. *International Journal for Crime, Justice and Social Democracy* 3(2): 96-109.
- Halsey M (2004) Against ‘Green’ Criminology. *The British Journal of Criminology* 44(6): 833-853.
- Harding S (2009) Gaia and Biodiversity. In Crist E and Rinker H B (eds) *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in an Age of Crisis*. MIT Press, pp. 107-124.
- Harris C (2018) Data shows Sweden’s wildfire problem is unusual. *Euronews*, 20 July 2018. Available at: <https://www.euronews.com/2018/07/20/this-chart-explains-how-unusual-sweden-s-wildfire-problem-is> (accessed 17 January 2020).
- Haynes K, Handmer J, McAneney J, Tibbits A and Coates L (2010) Australian bushfire fatalities 1900–2008: exploring trends in relation to the ‘Prepare, stay and defend or leave early’ policy. *Environmental Science and Policy* 13: 185-194.

- Hayward K J (2012) Five Spaces of Cultural Criminology. *British Journal of Criminology* 52: 441-462.
- Huf B and Mclean H (2020) *2019-20 Bushfires: Quick Guide*. Report for Department of Parliamentary Services, Parliament of Victoria. Research Note no. 1, February 2020.
- Kocsis R N and Australian Institute of Criminology (2002) *Arson: Exploring motives and possible solutions*. Australian Institute of Criminology.
- Lefebvre H (1991[1974]) *The production of space*. Oxford: Basil Blackwell.
- Lefebvre H (2004) *Rhythmanalysis: space, time and everyday life*. London: Continuum.
- Lewis S L and Maslin M A (2015) Defining the Anthropocene. *Nature* 519(7542): 171–180.
- Lynch MJ, Long MA, Barrett KL and Stretesky PB (2013) Is it a crime to produce ecological disorganization? Why green criminology and political economy matter in the analysis of global ecological harm. *British Journal of Criminology* 53(6): 997-1016.
- Lynch M and Stretsky P (2003) The Meaning of Green: Contrasting Criminological Perspectives. *Theoretical Criminology* 7(2): 217–38.
- Maldonado JK, Shearer C, Bronen R, Peterson K, Lazrus H (2013) The impact of climate change on tribal communities in the US: displacement, relocation, and human rights. In Maldonado JK, Colombi B, Pandya R (eds) *Climate Change and Indigenous Peoples in the United States*. Springer, Cham, pp. 93-106.
- McClanahan B (2019) Earth–world–planet: Rural ecologies of horror and dark green criminology. *Theoretical Criminology* 00(0): 1-18.
- Molz JG (2006) ‘Watch us Wander’: Mobile Surveillance and the Surveillance of Mobility. *Environment and Planning A: Economy and Space* 38(2): 377–393.
- Moran D, Piacentini L and Pallot J (2012) Disciplined mobility and carceral geography: Prisoner transport in Russia: Disciplined mobility and carceral geography. *Transactions of the Institute of British Geographers* 37(3): 446–460.
- Morton A (2019) Yes, Australia has always had bushfires: but 2019 is like nothing we’ve seen before. *The Guardian*, 24 December. Available at: <https://www.theguardian.com/australia-news/2019/dec/25/factcheck-why-australias-monster-2019-bushfires-are-unprecedented> (accessed 6 January 2020).
- NASA (2020) *NASA Animates World Path of Smoke and Aerosols from Australian Fires*. Available at: <https://www.nasa.gov/feature/goddard/2020/nasa-animates-world-path-of-smoke-and-aerosols-from-australian-fires> (accessed 20 January 2020).
- Neocleous M (2008) *Critique of Security*. Edinburgh University Press.

- Nicas J and Fuller T (2018) Wildfire Becomes Deadliest in California History. *The New York Times*, 12 November 2018. Available at: <https://www.nytimes.com/2018/11/12/us/california-fires-camp-fire.html> (accessed 14 January 2020).
- Nolan RH, Boer MM, Collins L, Resco de Dios V, Clarke H, Jenkins M, Kenny B and Bradstock RA (2020) Causes and consequences of eastern Australia's 2019–20 season of mega-fires. *Global Change Biology* 26(3): 1039–1041.
- Paddison L (2019) 2019 was the year the world burned. *Huffington Post*, 27 December 2019. Available at: https://www.huffingtonpost.com.au/entry/wildfires-california-amazon-indonesia-climate-change_n_5dcd3f4ee4b0d43931d01baf?ri18n=true&guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAI9xmQh8T40HNIj92D1pa-xke045KgpMlV95oSJS0B2KFTml2U0GBRmEig1BvP5MtDrbgmN95FNUmuAfZUQUqQoYuRQ9qX2G3zjPzSHbe5boaKPZWWNrlBag_ZPu9HI56hOcibrm9wB3RQuXTVrxixlkYJNpM87Ta7F-4LfYVjYa (accessed 14 February 2020).
- Parsons A and Goldman R (2020) Why the Fires in Australia Are So Bad. *The New York Times*, Jan 1. Available at: <https://www.nytimes.com/2020/01/01/world/australia/fires.html> (accessed 16 January 2020).
- RMIT ABC Fact Check (2020) Some Coalition MPs say that arson is mostly to blame for the bushfire crisis. Here are the facts. *ABC News*, 15 January. Available at: <https://www.abc.net.au/news/2020-01-15/is-arson-mostly-to-blame-for-the-bushfire-crisis/11865724> (accessed 8 April 2020).
- Rose D B (1996) *Nourishing Terrains: Australian Aboriginal Views Landscapes and Wilderness*. Canberra: Australian Heritage Commission.
- Rose D B (2004) *Reports from a wild country: ethics for decolonisation*. Sydney: UNSW Press.
- Rose D B (2017) When all you love is being trashed. In Tsing A, Swanson H, Gan E and Bubandt N (eds) *Ghosts and Monsters of the Anthropocene*. Minneapolis; London: University of Minnesota Press, pp. 51-63. Retrieved July 19, 2020, from www.jstor.org/stable/10.5749/j.ctt1qft070
- Ruggiero V and South N (2013a) Green Criminology and Crimes of the Economy: Theory, Research and Praxis. *Critical Criminology* 21(3): 359-373.

- Ruggiero V and South N (2013b) Toxic State-Corporate Crimes, Neo-liberalism and Green Criminology: The Hazards and Legacies of the Oil, Chemical and Mineral Industries. *International Journal for Crime, Justice and Social Democracy* 2(2): 12-26.
- Pyne S J (2001) *Fire: a brief history*. Seattle: University of Washington Press.
- Schmitt C (2005[1985]) *Political theology: four chapters on the concept of sovereignty* (University of Chicago Press ed.) Chicago, Ill.: University of Chicago Press.
- Sheller M (2017) From spatial turn to mobilities turn. *Current Sociology* 65(4): 623–639.
- Sheller M and Urry J (2006) The New Mobilities Paradigm. *Environment and Planning A: Economy and Space* 38(2): 207–226.
- Sheller M and Urry J (2016) Mobilizing the New Mobilities Paradigm. *Applied Mobilities* 1(1): 10–25.
- Sollund R (2017) Doing Green, Critical Criminology with an Auto-Ethnographic, Feminist Approach. *Critical Criminology* 25(2): 245-260.
- South N (2014) Green Criminology: Reflections, Connections, Horizons. *International Journal for Crime, Justice and Social Democracy* 3(2): 4-20.
- Stollard P (2014[1991]) *Fire from First Principles: A Design Guide to International Building Fire Safety*. Routledge.
- Sutherland CR (2019). Encountering the burn: Prescribed burns as contact zones. *Environment and Planning E: Nature and Space* 2(4): 781–798.
- Taylor-Coleman, J (2018) Wildfires around the world: The photos that explain the flames. *BBC News*, 25 July 2018. Available at: <https://www.bbc.com/news/world-44943143> (accessed 14 February 2020).
- Thunberg G (2019) 29 December. Available at: <https://twitter.com/gretathunberg/status/1210927616229826560> (accessed 29 December 2019).
- Todd Z (2015) Indigenizing the Anthropocene. In Davis H and Turpin E (eds) *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies*. Open Humanities Press, pp 241-255.
- Todd Z (2016) ‘Ontology’ Is Just Another Word for Colonialism: An Indigenous Feminist’s Take on the Ontological Turn. *Journal of Historical Sociology* 29(1): 4–22.
- Tsosie R (2007) Indigenous People and Environmental Justice: The impact of climate change. *University of Chicago Law Review* 78(4): 1625-1678.
- Urry J (2003) *Global Complexity*. Cambridge: Polity.

- Victoria State Government (2020). VICTORIAN GOVERNMENT DECLARES A STATE OF DISASTER. (online) Available at: <https://www.premier.vic.gov.au/wp-content/uploads/2020/01/200102-Victorian-Government-Declares-A-State-Of-Disaster-4.pdf> (Accessed 19 Feb. 2020).
- Virilio P (2006[1977]) *Speed and politics* (2006 ed) Los Angeles: Semiotext(e).
- Wall T (2016) Ordinary Emergency: Drones, Police, and Geographies of Legal Terror: Ordinary Emergency. *Antipode* 48(4): 1122–1139.
- White R (2008) *Crimes Against Nature: Environmental Criminology and Ecological Justice*. Devon, England: Willan.
- Whitehead PJ, Bowman DMJS, Preece N, Fraser F, and Cooke P (2003) Customary use of fire by indigenous peoples in northern Australia: Its contemporary role in savanna management. *International Journal of Wildland Fire* 12(4): 415-425.
- WHO (2020) *Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV)*. Retrieved from [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))
- Whyte K (2017) Indigenous Climate Change Studies: Indigenizing Futures, Decolonizing the Anthropocene. *English Language Notes* 55(1-2): 153-162.
- Williamson B, Markham F, and Weir JK (2020) *Aboriginal peoples and the response to the 2019–2020 bushfires*, Working Paper No. 134/2020. Canberra: Centre for Aboriginal Economic Policy Research, Australian National University.
- Williamson GJ, Bowman DMJS, Price OF, Henderson SB and Johnston FH (2016) A transdisciplinary approach to understanding the health effects of wildfire and prescribed fire smoke regimes. *Environmental Research Letters* 11(12), 125009.
- Woinarski J, Nimmo D, Gallagher R and Legge S (2020) After the bushfires, we helped choose the animals and plants in most need. Here’s how we did it. *The Conversation*, May 21. Available at: <https://theconversation.com/after-the-bushfires-we-helped-choose-the-animals-and-plants-in-most-need-heres-how-we-did-it-138736> (accessed 21 July 2020)
- Young A (2014a) *Street Art, Public City: Law, Crime and the Urban Imagination*. Abingdon: Routledge.
- Young A (2014b) From object to encounter: Aesthetic politics and visual criminology. *Theoretical Criminology* 18(2): 159-175.

Young A (2019) Arrested Mobilities: Affective Encounters and Crime Scenes in the City.
Law, Culture and the Humanities 00(0): 1-17.

Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Lundberg, K

Title:

Moved by fire: Green criminology in flux

Date:

2020-09-29

Citation:

Lundberg, K. (2020). Moved by fire: Green criminology in flux. CRIME MEDIA CULTURE, 18 (1), pp.3-20. <https://doi.org/10.1177/1741659020958450>.

Persistent Link:

<http://hdl.handle.net/11343/285317>