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Conceptual Metamorphosis: The Journey of 'Sacrifice Zones' and 'Wastelands.'

A Comparative Investigation into the Histories, Development and Use of Two Analytical Concepts

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Abstract

Language, words, and concepts are not static and instead are transferable and flexible in their use and meaning. The development of a concept is influenced by many factors including the social, political, and regional origin of the concept as well as the application of concepts to social justice movement and scholarly use. Two analytical concepts ‘Sacrifice Zones’ and ‘Wastelanding’ are examples of concepts that have been shaped by their varied use, across time, borders, and political landscapes.

This thesis will comparatively explore the origin, development, and use of two analytical concepts: ‘Sacrifice Zones’ and ‘Wastelanding.’ The notion of ‘Sacrifice Zones’ stems from America whereby areas of land destroyed by livestock use were referred to as ‘sacrifice areas.’ The ‘wasteland’ concept is first used in the Bible, describing a moral purgatory to test one’s godly devotion. The use and application of these concepts has developed significantly in the last century and are now used primarily in reference to the sacrifice of minority, local and Indigenous communities as well as the parallel sacrifice of the land belonging to these groups.

It is the development of meaning and application that this thesis will address. This thesis will pose questions such as: “How do these two concepts differ and how are these concepts similar?” and “Are there geographical differences between the use and understanding of these two terms?” and “What terms do Indigenous scholars use and why?” The answer to these questions may help in understanding why these concepts are used worldwide to refer to the destruction and the sacrifice of local, minority and Indigenous communities and their land. Language has significant power, thus a better understanding of ‘Sacrifice Zones’ and ‘Wastelanding’ will encourage an informed and conscious use of these concepts.

Keywords: wasteland, wastelanding, sacrifice zones, national sacrifice areas, colonialism, extractive industries, conceptual development.

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Chapter 1: Introduction

1.1. Introduction to the ‘Sacrifice Zone’ and ‘Wasteland’ Concepts

The destruction of Indigenous environments, land and non-human entities is a colonial act that has been forced upon a community. Indigenous communities throughout the globe have a shared history of colonisation, of their land, their culture, their languages, and their right to live with self-determination. Whilst colonial destruction of land was once orchestrated to expand imperial empires, much of the destruction of Indigenous land is now done in the name of societal progression, energy development and industrial expansion.

Language has played a paramount role in the implementation of colonial techniques and actions. For example, the notion of ‘Terra Nullius,’ meaning ‘nobody’s land,’ is a Latin expression that became a legal principle that British colonisation was formed upon. This was understood as land not belonging to white, Christian, colonists, and was consequently free for the taking. This concept provided justification for colonial states to claim Indigenous land as their own. Thus, language is foundational in its impact for enabling the expansion of colonialism. I identify the significance and consequences of using the concept ‘Terra Nullius’ to exemplify the role language has on enforcing colonial ideals and actions.

This thesis will explore the origin, development, and current use of two analytical concepts: ‘sacrifice zones’ and ‘wasteland.’ Both concepts are now used in the context of Indigenous rights and the environmental justice movement but neither concept was created for this purpose. They have been developed by scholars, critical thinkers, and activists to describe the colonial act of stripping land, and the people who inhabit these lands, of their identity and cultural value, to utilise for extractive development as well as economic and political gain. Whilst there are many scholars who use these concepts, there are also many critiques of these concepts. Winona LaDuke, an Anishinaabe environmentalist and activist, and Erica Violet Lee, a Nēhiyaw philosopher, explain that the ‘wasteland’ concept is not used by Indigenous communities and instead, is used to describe the mechanisms and processes behind, the transformation of land into ‘wastelands,’ used primarily by those who are turning their land into wasted areas (LaDuke, 1999; Lee, 2022). The concerns surrounding the concepts note the uneven power dynamics that are evoked through these concepts, questioning the role of agency and autonomy in the decisions to use these concepts.

I have decided to write on the ‘sacrifice zone’ and ‘wasteland’ concepts as I became intrigued by the increased use of the concepts, in academic and informal settings, as well as the use of these concepts interchangeably. I was curious, why was there a need for two concepts, both describing similar situations? Perhaps they articulate nuanced differences, or they are distinctly different and have been misinterpreted, and thus portrayed as interchangeable. My curiosity was not satisfied with my presumption. I decided to pursue this topic for my thesis to shed light on the origin, development, and perceived interchangeability of the concepts.

This thesis is a comparative exploration into the multiple histories, continuous conceptual development, and current use of the ‘sacrifice zone’ and ‘wasteland’ concepts. To understand how the concepts are used in scholarly work, it is necessary to understand the etymology and stages of development that these concepts have undertaken. Indeed, ‘sacrifice zone’ and ‘wasteland’ did not begin as environmental justice and Indigenous rights concepts, but their colloquial use has shaped the concept’s situatedness: transferring continuously across social movements, geographical contexts, and political landscapes, resulting in their current understanding and usage.

Whilst both concepts have an origin, there are multiple histories to them both. These histories have been shaped by the justice movements and political contexts that the concepts have been used in. Scholars, whose work is explored in this thesis, have analysed, and used the ‘sacrifice zone’ and ‘wasteland’ concepts, perceived from their different historical contexts. The impact of using the concepts from their different histories shall be explored in this thesis.

1.2. Research Questions

This thesis will investigate the multiple histories, multi-stage development and current scholarly use of the concepts ‘sacrifice zones’ and ‘wasteland.’ To do this, I have formulated the following research questions:

- What do these two concepts explain?
- How do these two concepts differ? How are these concepts similar?
- Who is using the two concepts, in what context and why?
- Are there geographical differences between the use and understanding of these two terms?

- What terms do Indigenous scholars use?

1.3. Chapter Overview

In Chapter One, I have introduced the context of this thesis, I identified the impact that language and concepts have on the enactment of colonial ideals. I have also noted my motivation for investigating the ‘sacrifice zone’ and ‘wasteland’ concepts.

Chapter Two is the Researcher Positionality, Ethics and Methods section. Here, I shall highlight my position as a researcher and acknowledge the impact that my prior education has on the methodological and theoretical framing of this thesis. I will then situate my positionality as a researcher in accordance with Bagele Chilisa’s research paradigms. This section also addresses the methodology of this thesis and present my primary texts, I will also note the secondary texts and explain why these have not been used.

In Chapter Three I delve into the multiple histories of the concepts and identify three significant stages of conceptual development that structure this chapter. In this chapter, I explore how the ‘wasteland’ concept has been used in the Old Testament, the New Testament, the King James Bible and then by a social reformist movement in England in 1649. I will also explore how ‘sacrifice zone’ began as a conservationist concept, transforming into a critical energy concept, and is then adopted by Indigenous rights and environmental justice movements, in America.

In Chapter Four I will highlight the current use of the ‘sacrifice zone’ and ‘wasteland’ concepts in current scholarly work. In this section I will address how the ‘wasteland’ concept has been developed into the verb ‘wastelanding’ and the impact of this. I will also illuminate the effect of scholars using the ‘sacrifice zone’ concept from two different histories and address the consequences this has on the application of the concept.

In Chapter Five I will comparatively address the ‘sacrifice zone’ and ‘wasteland’ concepts against six key themes that have been identified in this research. The six themes are the malleability of the concepts, the duality of value, the moral connotations, the impact of naming a place a ‘sacrifice zone’ or a ‘wasteland,’ the influence of state zoning techniques and whether these concepts are used interchangeably.

The final chapter, Chapter Six, will present the findings that have been identified throughout this thesis. From these, I will draw a conclusion to the research project that returns to the research questions that frame this thesis. I will also provide further recommendations that have been formulated from this research.

Chapter 2: Research Methods, Positionality and Ethics Section

2.1. Situating Myself as a Researcher

2.1.1. Positionality.

I am a female, English researcher who lives in Norway. I am a white, non-Indigenous academic who has researched environmental, political, and social issues that impact Indigenous communities globally for the past four years. I recognise that I am on the outside of these issues, and I do not place myself in the category of those affected by the topics I am exploring. Instead, I aim to provide clarity and further understanding of how language can play a decisive role in the environmental and cultural destruction of Indigenous land and communities, globally. My learning has been delivered by institutions with long colonial histories, in Norway, Canada and the United Kingdom.

I respectfully acknowledge that my studies and two institutions are located on Indigenous land: UiT, Norway's Arctic University is in Sápmi and the University of Saskatchewan, in Canada, is located on Treaty Six Territory, home of Métis and Cree Nations. I give thanks to the incredible people who have made my education possible and have supported my studies and growth, both academically and personally.

2.1.2. Previous Education.

In my previous bachelors and masters in Comparative Literature, I addressed literary texts through theoretical analysis. In these degrees I focused on the power of language, and poetry and, in my master's thesis, I wrote on Marshallese and Alaskan Indigenous ecopoetry as a form of protesting nuclear legacies. I have researched how language can reinforce colonial structures and I acknowledge that in this thesis, I will be addressing a similar relationship between language and its influence on actions. My previous research has informed my perception of the relationship between language and colonialism, which has assuredly influenced my analysis in this current thesis.

I began the Governance and Entrepreneurship in Northern and Indigenous Regions (GENI) degree which is run jointly by the University of Saskatchewan (Canada) and the University of Tromsø (Norway). Being a student at two university institutions impacts my positionality as the work that I have produced has often been comparative in nature. This comparative approach is also informed by my previous degrees in literature. In the GENI program, the focus is on communities and regions in the circumpolar North, however I am incredibly aware that the two concepts I am addressing are used globally and transcend geographical boundaries. My positionality as a researcher has been informed by my belonging to two academic institutions, located in different continents and consequently exploring different colonial legacies, differing governmental structures and multiple Indigenous identities.

2.2. Navigating the Five Research Paradigms

In this section, I will situate myself as a researcher within a research paradigm. I do this to show recognition of my positionality and its impact on the methodology and theoretical structure of this research project. Furthermore, in situating myself in a research paradigm, I aim to facilitate the critical assessment of myself as a researcher, by the readers of this paper. Different paradigms imply a certain methodological approach, with a philosophical base, which will inform assumptions about the perceptions of reality (ontology) and dictate what qualifies as knowledge and ways of knowing (epistemology) and value systems (axiology) (Chilisa, 2019, pg. 18). Therefore, locating myself will display my positionality and how this impacts my methodological and theoretical approach to this project.

Bagele Chilisa, a notable Botswanan post-colonial scholar on Indigenous research and methodologies, has developed a table to aid researchers to situate themselves in a research paradigm. Chilisa notes that the evolving discourse on Indigenous research and Indigenous research methodologies (see Chilisa et al., 2017; Held, 2019; Muwanga-Zake, 2009; Nabudere, 2011; Romm, 2015; Ping Li, 2011; Russon, 2008; Smith, 1999, Wilson, 2008) has determined the need for a fifth paradigm to add to the traditional paradigms. The current four research paradigms are namely the postpositivist, the constructivist, the transformative and the pragmatic paradigms (Chilisa, 2019, pg. 19). The fifth research paradigm is an Indigenous research paradigm. Scholars such as Held (2019) argue that there are distinct differences in the understandings about the nature of reality, knowledge, and values, as well as worldview

paradigms are based in: the transformative paradigm is situated in a Western worldview which is in significant contrast to the Indigenous research paradigm, which is rooted in a holistic, localised worldview (Held, 2009; Chilisa, 2019, pg. 20).

To situate myself most accurately and informedly, I have evaluated my positionality in accordance with the seven-research criterion, formulated by Bagele Chilisa, to determine which research paradigm I am situated in. The readers will be aware of how I view myself as a researcher and can consequently evaluate if I have conducted this thesis in accordance with my positionality.

The seven criteria formed by Chilisa are: reason for doing the research, philosophical underpinnings of the research, ontological assumptions, the place of values in the research process, the nature of knowledge, what counts as truth, methodology and finally, the techniques used for gathering data (2019, pg. 46-7). After assessing where I am located for each of the criteria individually, I can conclude that I am situated in the interpretive paradigm, the transformative paradigm, and an Indigenous research paradigm.

For the criteria 'reason for doing the research' and 'philosophical underpinnings' of the thesis, I have placed myself in both the transformative and Indigenous research paradigm. Under the criteria of 'ontological assumptions' and the 'place of values in research' I have situated myself in the interpretive, transformative, and Indigenous research paradigms. The fifth criterion, 'the nature of knowledge' I have placed myself in the Indigenous research paradigm as the understanding and use of the 'sacrifice zone' and 'wasteland' concepts is relational. For the sixth criterion, 'what counts as truth' I have located myself in the interpretive and Indigenous research paradigms as both paradigms assert that truth is dependent upon its context and informed by multiple relations with the universe. I have situated myself under the transformative paradigm for the 'methodology' criterion and for the criterion 'techniques for gathering data' I have placed myself in the pragmatist paradigm. Both criteria refer to a mixed methods design which was the initial methodological structure of this thesis, I shall expand on this in the next section.

Bagele Chilisa explores the 'dance' (2019, pg. 21) and symbiosis occurring between multiple research paradigms which Johnson and Stefurak build upon. Johnson and Stefurak have developed the notion of dialectical pluralism, referring to a researcher's ability to conduct research whilst using multiple research paradigms simultaneously (2013). From

locating myself in Chilisa's research paradigms, I have established that I am situated simultaneously in multiple research paradigms and thus that my research methodology falls under the understanding of dialectical pluralism.

2.3. Methods: Data Collection

My research on the history, development, and use of the terms 'sacrifice zones' and 'wasteland' has been primarily informed by conducting a data analysis of available literature on the two concepts. The data collection for this thesis has been done through an extensive literature review, as I am critically assessing the theoretical development of 'sacrifice Zones' and 'wasteland' by addressing the use of these analytical terms.

2.3.1. Primary Texts.

My primary texts for this research project are:

1. Victoria Di Palma's book 'Wasteland: A History' (2014).
2. Traci Brynne Voyles' book 'Wastelanding. Legacies of Uranium Mining in Navajo Country' (2015).
3. Ryan Juskus' journal 'Sacrifice Zones. A Genealogy and Analysis of an Environmental Justice Concept' (2023).

These three texts have been selected as the primary texts of this thesis because they investigate the development and usage of the concepts 'sacrifice zones' and 'wasteland.' Di Palma's work tracks the development, from the 1600s, of the 'wasteland' concept, identifying pivotal moments of the concept's metamorphosis whilst Voyles' is foundational in its development of the verb 'wastelanding' which is a political process that creates designated 'wastelands.' Together, the work of Voyles and Di Palma provides an in-depth analysis of the history of the 'wasteland' concept and its current usage as an environmental justice concept. Similarly, Juskus provides a genealogy of the 'sacrifice zone' concept, exploring the origin of this term and tracking its development to its current usage as a concept describing environmental and social injustices. These three primary texts have been thoughtfully decided upon as they contextualize the creation of these concepts, showing the multiple histories that exist parallelly, which informs my investigation of the current uses of the concepts in scholarly work.

2.3.2. Choosing Primary Texts.

In the process of choosing primary texts, there were others that I evaluated and considered in the initial literature review that were not included in the thesis:

1. Valerie Kuletz's book 'The Tainted Desert: Environmental and Social Ruin in the American West' (1998).
2. Diana Davis' journal 'Desert 'wastes' of the Maghreb: desertification narratives in French colonial environmental history of North Africa' (2004).
3. Michelle Langrand's interview with David Boyd: 'UN environment expert: The world's toxic wastelands have millions of residents' (2022).

These texts, while not further discussed, informed the researcher's initial understanding of the use of the concepts.

I used the online libraries of the University of Saskatchewan and UiT, Norway's Arctic University to conduct the initial literature review. It became apparent that when searching with the keyword 'wasteland', works related to T. S. Elliot's novel dominated the results. I changed my search criteria to 'wastelands' the verb and 'sacrifice zones.' From this search criteria, there was significantly more published work on the 'sacrifice zone' concept and many of the results for 'wastelands' were reviews of the books authored by Voyles (2015) and Di Palma (2014). Removing the journals discussing Di Palma's and Voyles' books, it appears upon first review that the term 'Wastelands' is not as strongly associated with Indigenous, minority and environmental rights in comparison to the concept of 'Sacrifice Zones.' Furthermore, when searching with the term 'Sacrifice Zones' the results were overwhelmingly centred on social-environmental issues and activism, environmental destruction as well as Indigenous and minority rights in relation to sacrifice zones.

From that, the search results for the terms 'sacrifice zones' and 'wastelands' differed significantly numerically, and this thesis reflects this, as I have written more extensively on the 'sacrifice zone' concept. Searching for 'wastelands' on the University of Tromsø's online library showed 133 results with most of these commenting on Voyles' book and many on Di Palma's book. Searching for 'sacrifice zone' on the same library search engine resulted in 1,630 texts, primarily stand-alone articles, journals, and books. The University of Saskatchewan's online library search showed 397 results for 'wastelands', with some articles focused on Voyles' and Di Palma's publications. Searching for 'sacrifice zones' on the University of Saskatchewan's online library provided 2,432 results. I noticed a difference in the geographical range of topics between the

Norwegian and Canadian online libraries: the Nordic results provided more European and Scandinavian content whilst the Canadian library showed works exploring the concept in a South American, North American, and Asian context. My positionality as a researcher belonging to two universities is reflected here as I have been able to access literature made available by both a Scandinavian institution and a North American institution. I must also acknowledge that I am studying online and thus are unable to access texts which are physically located at either university which, whilst there were not many relevant texts physically in the libraries, does impact my ability to provide an insightful overview of the analytical concepts.

The library searches resulted in articles that were published in multiple databases. These included: JSTOR, Taylor and Francis, ProQuest Ebook Central, Elsevier ScienceDirect Journals Complete, Google Scholar, EBSCOhost, Oxford University Press, the University of Chicago Press Journals, the American Library Association and Gale Academic as well as Gale Literature Centre. After the library searches, I conducted further searches on these individual databases using the same search terminology. This resulted in identifying more journals, peer reviews and articles commenting on the concepts. However, many of the articles published referred to ‘sacrifice zone’ in its noun form and were written critically about the creation of a specific case study, designated as a ‘sacrifice zone.’ There were very few published texts written on the use, development, and history of the analytical concepts.

Jukus writes specifically on the genealogy of the term ‘sacrifice zone’ and consequently, the references used to support the article focused on the critical, and often non-critical, use of this term and analysed the influences from environmental justice scholars, Indigenous thinkers, and American scholars. Jukus refers to the non-critical use of the term ‘sacrifice zones’ which, whilst a valid acknowledgment, is in conflict with the researcher’s situatedness in the interpretive and Indigenous research paradigms whereby the notion of truth is dependent upon the context in which it is used, as well as truth being informed by the relations that one has with the universe (Chilisa, 2019, pg. 47). Thus, I have not approached scholars use of the ‘sacrifice zone’ from its multiple histories as a limitation of their use but instead, I have identified the impact of this.

Similarly, Di Palma’s ‘Wasteland: A History’ (2014) references provided further insight into the development of the term ‘wasteland’ and a historical contextualisation of the concept. Whilst Voyles’ ‘Wastelanding’ (2015) is a valuable source of data on the use of the

word ‘wastelanding’, the works cited are specific to the mining industry, Indigenous and Navajo experiences. Voyles’ perspective is illuminating but Di Palma’s is more relevant for the specific investigation this thesis will conduct.

Tynan and Bishop have written on the notion of decolonising research methodologies, specifically on the decolonisation of literature reviews (2023). Chilisa’s *Indigenous Research Methodologies* speaks to the notion of literature reviews and acknowledges the tension between undertaking a literature review and the reality that much of the literature about Indigenous Peoples has been predominantly (Tynan et al., 2023) ‘written by outsiders’ (Chilisa, 2012, pg. 59). Tynan and Bishop explain that, from their Indigenous perspective, that the concept of a literature review is inherently Westernised, exclusive of Indigenous worldviews and situated in the traditions of European imperialism (Tynan et al., 2023; Smith 2021). Whilst I have situated myself in the Indigenous researcher paradigm, it would be remiss to not acknowledge that I have unknowingly succumbed to the Westernised research practice of attempting to ‘identify a research gap’ within the available literature. I acknowledge this, my knowledge on conducting literature reviews is informed by my previous degrees and thus my experience of literature reviews has not been critical.

It must be noted that as a monolingual, English-speaking researcher, I am unable to search for non-English published texts written on these two concepts. That said, there may be a wealth of literature, knowledge, and perspectives, that I am excluding from my research project. Whilst I acknowledge that this is certainly a limitation of my research methods, within the time constraints of this project, it is not possible to conduct a quantitative overview of all languages’ use of these two analytical concepts.

2.4. Methodology

To best answer the research questions shaping this thesis, I initially decided upon a mixed methods design, combining quantitative and qualitative research methods, to identify, understand and compare the genealogical development and use of the concepts ‘sacrifice zone’ and ‘wasteland.’ Chilisa (2019) and Johnson and Stefurak (2013) note the strength of utilising a mixed methods design. Qualitative research methods are best suited to understand words, concepts and thoughts and this type of research enables the researcher to gather in-depth insights on this topic which, as seen from the lack of previous literature, is not well understood, or researched (Streefkerk, 2023). However, to conduct the initial literary analysis

and data collection for this project, it is necessary to adopt a quantitative research approach that allows the most effective collection of empirical data. Whilst I began this thesis with a mixed methods design, through the writing process, the thesis became a qualitative analysis. For an in-depth overview of the reviewed literature and scope of the quantitative approach, please refer to the appendix of this thesis where I have created a table which identifies many of the scholars' definitions of the two concepts.

Chapter 3: The Development of 'Wasteland' and 'Sacrifice Zones.'

The concepts 'sacrifice zones' and 'wastelands' are seen in scholarly work, often describing the sacrificing of Indigenous land, minority, and local communities land, for extractive development and capitalistic goals. Whilst 'sacrifice zones' and 'wastelands' are currently situated as environmental and Indigenous justice concepts, there have been multiple interpretations, understandings, and uses of the concepts. To understand how the 'sacrifice zone' and 'wasteland' concepts became established in their current context, it is necessary to acknowledge the conceptual development and multiple histories of these concepts.

This chapter is structured in four parts which are organised in accordance with the origin and three notable stages of conceptual metamorphosis that I have identified for each concept. The three stages of development have been informed by Victoria Di Palma's 'Wasteland: A History' (2014) and Ryan Juskus' journal 'Sacrifice Zones: A Genealogy and Analysis of an Environmental Justice Concept' (2023). These two works have conducted genealogies of the two concepts respectively and explored the change in their usage, in multiple contexts. Informed by their respective genealogies of the concepts, I have formed three significant stages of conceptual transformation, where the definition of 'sacrifice zone' and 'wasteland' has been shaped and reimagined from its usage in a new context.

The first part of this chapter will identify the origin of 'sacrifice zone' as an American agricultural concept, and 'wasteland,' first written as *westen*, as a biblical concept in the Old Testament, in England. I will then address the first stage of conceptual development as 'sacrifice zone' is used as a critical energy concept and the development of the *westen* in the Old Testament to the *westen* of the New Testament, differentiated through the notion of choice. The second stage of development positions the 'sacrifice zone' concept as an Indigenous rights term, and the *westen* has transformed into the 'wasteland' in the King James Bible (1611). The third stage of development occurs when the 'sacrifice zone' concept

is transferred to the environmental justice movement and the ‘wasteland’ is adopted by social revolutionaries in England, who used the concept to highlight the wasted land of England, that should be utilised by commoners.

3.1. The Origin of ‘Wasteland’ and ‘Sacrifice Zones.’

The concept ‘sacrifice zones’ was first termed ‘sacrifice areas’ in the early 1970s, it originated in the agriculture sector, describing a conservationist technique of sacrificing certain pastures to allow other pasturelands to remain verdant (Juskus, 2023, pg. 5). The purpose of the ‘sacrifice area’ was to ensure sustainable economic development by balancing economic productivity and sustainability (Juskus, 2023, pg. 6). Although the word ‘sacrifice’ has connotations of morality and religion, at this stage the concept is not infused with moral connotations, instead it is simply a conservationist technique. The moral connotations attached to the concept will be explored later in this chapter and in the next chapter.

The ‘wasteland’ is first written as the *westen* in early versions of the Old Testament. The *westen* is a place of ‘trial and tribulations’ physically depicted as desolate, barren, and full of menacing creatures, threatening to human life (Di Palma, 2014, pg. 16). In the Old Testament, the *westen* is a place of forced exile and punishment where there is no choice in the decision to go to the *westen* and instead, entering the *westen* is a choice made for the individual, by the higher power of God. It is inherently a forced displacement, such as the enforced exile and banishment of the Israelites who were forced to suffer and atone. Surviving the *westen* physically, is a miracle, but it is the individual’s ability to protect their morality and soul, that truly defines survival of the *westen*.

3.2. The First Stage of Development

This section shall address the first stage of conceptual evolution of the ‘sacrifice zone’ and ‘wasteland’ concepts. The first notable development of the ‘sacrifice zone’ concept occurs when it is transferred from a conservationist concept in the agriculture sector, to a politicised and accusatory concept in the energy sector. And the first significant change of the *westen* is seen when the concept is used in the New Testament, portrayed as a place where one can choose to enter and prove their devotion and dedication to God, juxtaposing the *westen* of the Old Testament, no longer describing a forced exile.

The concept ‘sacrifice area’ is transferred from the agriculture sector to the energy sector in 1973, during the American oil crisis. Project Independence was initiated because of this crisis and led to the expansion of nuclear plants and coal strip mines into western areas, areas largely inhabited by ranchers, agriculturists, and Indigenous communities (Juskus, 2023, pg. 6). There was a unified movement against this from Indigenous Peoples and environmentalists in Colorado, Montana, and Wyoming. The first document to use ‘sacrifice areas’ in an energy context was the National Research Council’s report entitled *Rehabilitation Potential of Western Coal Lands* (1974) and this documented use of the ‘sacrifice areas’ concept formally reinforced its transference from livestock to energy (Jukus, 2023, pg. 6).

A year later, in 1974, journalist Bruce Hamilton addressed the ‘sacrifice areas’ concept in a testimony to Congress where he combines energy independence and the expansion of coal, highlighting how the ‘sacrifice area’ concept communicates moral and theological connotations when transferred from livestock to energy (Juskus, 2023, pg. 7). Individuals like Hamilton, who resisted the industrial colonisation of western lands thus converted a conservationist management concept into a morally infused, critical energy concept which inseparably bound together the fates of both land and people (Juskus, 2023, pg. 8). It is at this stage of conceptual development that the ‘sacrifice area’ concept is firmly associated with morality, Hamilton has connected the concept to the sacrificing of peoples, and not solely environmental sacrifice.

The notion of choice is what separates the *westen* in the Old and New Testaments. In the New Testament, entering the *westen* is a choice, it is depicted as a place where individuals can acquire and demonstrate sanctity, shown when John the Baptist, Christ and the hermit saints go willingly into the *westen* to test and prove themselves (Di Palma, 2014, pg. 16). In this portrayal of the *westen*, it is a conscious decision for an individual to enter the place of ‘trials and tribulations’ (Di Palma, 2014, pg. 16) and to test their religious and Godly devotion.

The first notable difference between ‘sacrifice area’ and the *westen* is how these concepts became associated with morality. The *westen* is inherently a moral concept: surviving the *westen* is a test of one’s morality, and the retainment of morality depends on an individual’s devotion to God. Whilst the *westen* is inherently a place of ‘trials and tribulations’ (Di Palma, 2014, pg. 16) where morality is tested and judged, the concept of

‘sacrifice areas’ develops its moral connotations throughout its colloquial use. The association of ‘sacrifice areas’ with theology, religion and morality occurs when the concept is first used outside of its original agricultural context and transferred to extractive industries, the energy sector (Juskus, 2023). The first stage of conceptual metamorphosis, connecting the sacrifice of land to the sacrifice of a people, inserts ‘sacrifice areas’ as a moral notion, reinforced by Hamilton’s development. The two analytical concepts are noticeably different in how they became associated with morality.

3.3. The Second Stage of Development

In this section I shall address the second stage of conceptual development, where both the meaning and the structure of the concepts has been changed. The previous concept ‘sacrifice areas’ has been restructured to ‘sacrifice zones,’ when it is transferred from a critical energy concept and situated as an Indigenous rights concept. Similarly, the *westen* of the Old and New Testaments has been renamed in the Authorised King James Version of the Bible (1611) and what was the *westen*, is now termed the ‘wasteland.’

The Authorised King James Version of the Bible, published in England in 1611, replaces the word *westen* with ‘wilderness’ and makes a distinction between the ‘wilderness’ and the ‘wasteland.’ The ‘wilderness’ is an uninhabited land that is barren, ‘a land of drought, and of the shadow of death, a land that no man passeth through, and where no man dwelt’ (Jeremiah 2:6-7). It is a place where one risks being lost, physically and spiritually, mirroring the *westen* of the Old Testament, where one must submit to God as He will show his power by making ‘a way in the wilderness’ (Isaiah 43:19-20; Di Palma, 2014, pg. 17). The ‘wasteland’ is land that has been transformed by an act of destruction, it has been made barren and desolate, thus deemed as uninhabitable (Di Palma, 2014, pg. 18). In the King James Bible, these acts of destruction are a divine punishment, a Godly reaction to humanities immorality. Thus, the creation of the ‘wasteland’ is a direct consequence of humanities immorality, this land is wasted as a punishment, destroyed because of the decisions made by humans.

The ‘sacrifice area’ concept has been transferred from an energy context to an Indigenous rights context and has been restructured as ‘sacrifice zones.’ This change across social and political contexts occurs in 1979, amidst another oil crisis in America. Navajo activist John Redhouse develops the ‘sacrifice zone’ concept to attain a socio-ecological

dimension situated in a context of severe constraint and injustice: the sacrificing of Indigenous lands to pursue energy development projects throughout American (Juskus, 2023, pg. 9). In this context, the ‘sacrifice zone’ concept is used to describe the social and environmental issues caused by uranium mining and nuclear development and the concept was used to critically assess the ways genocide and ecocide were intertwined and rooted in settler-colonial culture (Juskus, 2023, pg. 9).

Russell Means, the American Indian Movement leader, theoretically enriched the concept of ‘sacrifice zones’ by linking it to the sacrifice of an entire peoples (Juskus, 2023, pg. 9). Means’ development of the concept is supported by other influential Indigenous thinkers such as Winona LaDuke, Ward Churchill, and George Tinker (Juskus, 2023, pg. 10; Churchill, 2002; Churchill and LaDuke, 1986). The concept of ‘sacrifice zones’ is now firmly situated as a critical political-ecological concept which criticises the European and American tendencies to waste lands and people’s homes to pursue further development (Juskus, 2023, pg. 10).

In this second stage of conceptual development, ‘wasteland’ and ‘sacrifice zone’ are concepts that describe the purposeful destruction of an area, being done by those outside of the community, who are sacrificing the land for extractive development. Furthermore, the ‘wasteland’ is created by God: it is a divine act of destruction, committed to punish humanity for its immorality.

3.4. The Third Stage of Development

The final section of this chapter explores how the ‘sacrifice zone’ concept develops to be an environmental justice concept and addresses how the ‘wasteland’ concept is transferred from the King James Bible to a social reformist movement in England. In the third stage of development, both concepts have been expanded by their new contexts, and are used to describe a wider array of social issues than in their previous contexts.

The ‘wasteland’ becomes an important social concept in England, in 1649, during an era of agricultural unsettlement. Amidst this crisis, The Diggers, a radical social movement, adopt the ‘wasteland’ concept to describe their goals for societal reform (Tamas, 2020). This movement is led by Gerrard Winstanley who, in 1648, experiences economic and agricultural ruin and in this depression, he began hearing the direct word of God in multiple trances (Di Palma, 2014, pg. 12). Winstanley’s interpretation of these trances is the catalyst of The

Diggers movement, their goal was to ‘make the wast Land fruitfull’ as they believed that ‘if the wast land of *England* were manured by her Children, it would become in a few years the richest, the strongest, and flourishing Land in all the world’ (Di Palma, 2014, pg. 15; Winstanley, 1649). Winstanley sees the ‘wasteland’ as a product of an immoral societal structure and stipulates that necessary social reform is reliant on the power of communal labour, primarily of poorer classes, to come together and to heal the ‘wasteland’ as well as utilising it for its full potential. The fundamental principle of Winstanley’s experimental community of Diggers was that the whole Earth should be a ‘common treasury for every man’ and that ‘the earth belonged to no man but God alone’ (Winstanley, 1648). They firmly claimed the ‘wastelands’ of England for the poor.

Di Palma explains that Winstanley’s use of the terms ‘wasteland’ or ‘wast land’ was not accidental as the notion of a ‘wasteland’ was infused with connotations that made the link between the temporal and the spiritual inevitable (2014, pg. 16). Building on this, for Winstanley and The Diggers, their guerrilla farming techniques and mission to utilise the wastelands of England was a social movement steeped in biblical and religious context. By using the term ‘wasteland,’ Winstanley is describing the physical transformation of the ‘wasteland’ through cultivation and labour and the consequent spiritual redemption that would occur because of redeeming the wasted land.

The moral connotations of the ‘wasteland’ concept are developed significantly by Winstanley who uses the concept in a societal context, whilst retaining the biblical notions of morality, but connects another form of morality to the concept. The ‘wasteland’ has metamorphized from a biblical place that tests the morality of humanity, to a place that is the product of humanities lack of morality and, thus, has transformed itself from the judge to victim.

The ‘sacrifice zone’ concept transfers from an Indigenous rights context to the environmental justice movement in the 1990s. This movement, formed in the southern states of America, raises awareness, and challenges the toxic uses of land that disproportionately affects economically poor and racialised minority communities. Robert Bullard, a leading environmental justice scholar, explains that the dumping of toxic waste systematically occurs in communities of colour and from this, he termed the concept ‘environmental sacrifice zones’ to describe environmental disparities in places that disproportionately bear the burdens of pollution, chemical exposure, and toxic waste (Bullard, 1994). Bullard is expanding the

definition of ‘sacrifice zones,’ beyond its previous history as a livestock concept, a critical energy concept and an Indigenous rights concept. He is claiming that environments and communities that are disproportionately impacted by pollution, chemical exposures and toxic waste should also fall under the ‘sacrifice zone’ designation.

Similarly, Steve Lerner, another American environmental justice scholar, makes the case that the ‘sacrifice zone’ concept should be expanded, beyond its critical energy and Indigenous rights contexts, to include a broader array of fence-line communities or hot spots of chemical pollution where residents live immediately adjacent to heavily polluting industries or military bases (2012, pg. 3). This scholar’s formulation of the ‘sacrifice zone’ concept, stabilises the concept during the environmental justice movement and has become widely used by scholars. Lerner, as Bullard has also done, expands the application of this concept, presenting a case for its use beyond its existing contexts. Here the scholars are displaying the malleability of the concept, this shall be explored further in the next chapter of this thesis as I address the flexibility of both concepts, and the consequent impact of this.

The use of ‘sacrifice zones’ in the environmental justice movement developed the concept in two ways which encouraged the global expansion of this concept. The first of these is that ‘sacrifice zones’ was now used to refer to any geographical area which bore a disproportionate amount of industrial pollution, toxic chemical exposure, or other environmental harms associated with industry or national security (Juskus, 2023, pg. 12). This development of the concept meant that ‘sacrifice zones’ was used to name the intertwined environmental and human costs of national and economic development in general (Juskus, 2023, pg. 10).

The second noted impact of conceptual development is the relevance of fence-line imagery. Ryan Juskus explains that the ‘sacrifice zone’ concept, in its original history as a conservationist technique, were reinforced and supported by fences, the fences were able to contain the ecological damage caused by animals to the land. Juskus theorises that the fences used in agriculture were practical as they provided direct protection of pastureland from potential livestock destruction, he juxtaposes this point and explains that the fences used to separate residential areas from industrial sites of development, only upheld the appearance of containment as toxins are carried by wind, water and soil, far beyond the fences intended to retain them (Juskus, 2023, pg. 12). From this, the ‘sacrifice zone’ concept was adopted by

environmental justice and Indigenous theorists to describe the inane human inability to manage and contain the damages unleashed by industrial production (Juskus, 2023, pg. 12).

This stage of conceptual development has shown the impact that the new contexts of the ‘wasteland’ and ‘sacrifice zone’ concepts has had on their expansion. ‘Wasteland’ as a social and reformist concept has inverted the previous history of the concept, once a place that existed in the Old and New Testaments to test humanities morality, has become a place that represents humanities immorality. Furthermore, the ‘sacrifice zone’ concept has been expanded in the environmental justice movement, primarily by Bullard and Lerner, who have expanded the concept to include land and communities impacted by an array of industrial and military developments.

The next chapter of this thesis will build upon the identified stages of transformation in this chapter and will address current scholarly use of the two concepts.

Chapter 4: The Current Use of the ‘Wasteland’ and ‘Sacrifice Zones’ Concepts

In Chapter Three, I identified four phases of conceptual metamorphosis of the ‘wasteland’ and ‘sacrifice zone’ concepts, this was influenced by Juskus and Di Palma’s separate genealogies on the concepts. Building upon this groundwork, Chapter Four will explore the current scholarly use of the two concepts to address the research question: Who is using the two concepts and in what contexts?

In this chapter I will identify how the ‘wasteland’ noun and adjective has been developed into the verb, ‘wastelanding’ by Traci Brynne Voyles. I will then address two different approaches to analysing the ‘sacrifice zone’ concept, comparing the impact of approaching the ‘sacrifice zone’ through its multiple histories.

4.1. ‘Wastelands’ and ‘Wastelanding.’

This section will explore how the ‘wasteland’ adjective and noun has been developed into the verb ‘wastelanding’ by Traci Brynne Voyles, an American historian who focuses on colonialism race, gender, and the environment. I will also explore the work of Lena Gross, a social anthropologist based in Norway, researching Indigenous rights, feminist theory, queer theory, and the environment who has used the ‘wastelanding’ concept in their work.

Voyles explains that the ‘wasteland’ is a form of environmental racism that renders an environment and the bodies that inhabit it pollutable (2015, pg. 9). Building on this, Voyles develops the verb ‘wastelanding’ which she describes as a racial and spatial process of signification, which declares Indigenous land as valueless, thus enabling the exploitation of this land and its underground resources: it is a process that makes extreme environmental degradation possible (Voyles, 2015, pg. 11). ‘Wastelanding’ is a process of two stages: first is the assumption that nonwhite lands are valueless, or only valued because of their resource potential, second is the subsequent devastation of those environments by polluting industries (Voyles, 2015, pg. 10). The process of ‘wastelanding’ reifies what might otherwise be only discursive (Voyles, 2015, pg. 10), it is through the process of ‘wastelanding’ that the ‘wasteland’ comes into existence. Voyles’ development of ‘wastelanding’ highlights the necessary steps in creating a ‘wasteland,’ the environment and its inhabitants must be perceived as valueless and pollutable before they are turned into wastelands. Voyles articulates that ‘wastelanding’ is not solely a process impacting the environment instead, the bodies and non-human inhabitants of this land must also be wastelanded. Indeed, ‘wastelanding’ is a multiscalar process that also requires the ‘wastelanding’ of Indigenous worldviews, epistemologies, history, and cultural and religious practices (Voyles, 2015, pg. 11).

Lena Gross has addressed the rhetorical transformation of Indigenous land into oil sands fields, as a political act, in Alberta, through Voyles’ process of ‘wastelanding.’ Gross identifies the preconceived idea that oil sands pollution is a natural process, thus the transformation of this land into a ‘wasteland’ occurs naturally, this idea is shortly rebuked as Gross notes David Schindler’s research showing that the pollution of this area, and the consequent identity of this as a ‘wasteland, is the direct result of oil sands extraction (Gross, 2019, pg. 92; Kelly et al., 2009). Gross reinforces the idea that the creation of a ‘wasteland’ is not a natural phenomenon and instead, is the direct result of extractive development. Gross explains that the Indigenous land is narrated as a ‘wasteland’ and this has been done through the process of ‘wastelanding’ as the environment and its inhabitants, human and non-human, have been rendered pollutable. Gross articulates that the creation of a ‘wasteland’ through the process of ‘wastelanding’ has many stages and applies Anna Tsing’s three features of natural resource management to the Albertan oil sands. Three stages are identified which enable the ‘wastelanding’ process: magnification, exaggerating the remoteness of the area, simplification, reducing the environment to its frontier character, and mischaracterization of

the land, focusing on its natural bounty (Gross, 2019, pg. 95). Gross explains that the multi-step process has occurred in Alberta and this process has influenced the transformation of the environment into a ‘wasteland.’

The development and consequent use of the ‘wastelanding’ concept by Voyles and Gross exemplifies the malleability of the concept. Returning to the ‘wasteland’ concept in its history as a guerrilla farming technique in the 1600s of England, the concept has evidently developed in both its meaning and its newer form as a verb. As argued with the ‘sacrifice zone’ concept, I perceive the malleability of the ‘wasteland’ concept to be a significant strength. Developing the noun and adjective form to a verb has provided clarity on the process of creating a ‘wasteland’ and on the consequences of this. This section has explored the transformation of the concept ‘wasteland’ as an adjective and noun to the verb ‘wastelanding,’ addressing Voyles’ belief that a ‘wasteland’ is created through the political process of ‘wastelanding.’ Voyles’ development of the structure of the concept is a paramount addition to the ‘wasteland’ discourse. The next section of this chapter will consider a different form of conceptual development of the ‘sacrifice zone’ concept. Similarly, the development of the ‘sacrifice zone’ concept has been shaped by the context it is situated in, thus the interpretation and analysis of the concept is impacted by which history the concept is understood through.

4.2. Sacrifice Zones: Two Different Histories

The concept ‘sacrifice zones’ is widely used, and increasingly so, in scholarly works to describe the causal relationship between extractive development and the consequent environmental destruction and impingements on Indigenous sovereignty. Whilst there has been a significant increase in this concept's use, there are few published texts which critically engage with its development and applicability. This thesis seeks to answer the question of ‘Who is using the two concepts, in what context and why?’ To best address this question, in this section I will identify and compare the work of scholars who have engaged with the historical context of the ‘sacrifice zone’ concept.

In identifying the different forms of engagement with the historical context of the ‘sacrifice zone’ concept, this section aims to evaluate what impact this has on the use of the concept. This section is organised into two parts: firstly, I will address the work of Reinert (2018) and Colten (2012) who analyse the ‘sacrifice zone’ concept through its agricultural

history. I will then go on to investigate the work of Skorstad (2018) and Lerner (2012) who have also explored the ‘sacrifice zone’ concept within its historical context as a critical energy concept.

4.2.1. The Agricultural History of ‘Sacrifice Zones’

This first part of this section will address the work of Hugo Reinert, a researcher of environmental humanities and critical heritage studies and Craig Colten, an American historical geographer. Both scholars have approached their analysis of the ‘sacrifice zone’ concept through its history as a conservationist concept within agriculture. These two scholars, Reinert writing from a Nordic context and Colten from an American context, acknowledge the agricultural history to differing degrees.

Both Reinert and Colten note the agricultural history of ‘sacrifice zones’ early in their work: Colten, in the second paragraph, explains that the term derives from the study of traditional agricultural practices where cultivators deliberately degraded one area to increase the productivity of another area (2012, pg. 91) and Reinert, in the first sentence of his work, references Colten and explains that the ‘sacrifice zone’ concept finds ‘its origins as an agricultural term’ (2018, pg. 597; Colten, 2012). Reinert investigates what the ‘sacrifice’ in ‘sacrifice zone’ might mean, noting that the concept of ‘sacrifice zone’ has the potential to critically reframe issues of resource extraction (2018, pg. 598). Reinert develops three meanings of sacrifice: firstly, sacrifice is a marker which explains an exchange whereby one thing is given up for the benefit of another thing, secondly, sacrifice is a concept that problematises loss and thirdly, sacrifice is a concept which invokes virtuous or necessary renunciation, the surrender of something valued for the sake of a “higher” purpose or the good of society (Reinert, 2018, pg. 604). Reinert places the ‘sacrifice zone’ concept in the third form of sacrifice and it is this understanding of sacrifice that this section shall explore.

Colten argues that when the concept ‘sacrifice zones’ is used to reference the environmental and social impacts of industrialisation and the development of military infrastructure, it is ‘used by scholars in an explicitly accusatory way’ (2012, pg. 91). Similarly, Reinert explains that using the ‘sacrifice zone’ concept in the context of military and technological advantage, ‘imputes an element of calculated, agentive will to the situation: a sacrifice does not happen by accident’ (2018, pg. 599). From this, it can be understood that when the ‘sacrifice zone’ concept is transferred from its original agricultural context, there is

a parallel change in the tone of the concept, it develops from a descriptive notion to an accusatory concept. The scholars identify the notion of choice in this stage of conceptual development, a sacrificed land is a conscious decision, highlighting the moral aspects of the concept.

Acknowledging the agricultural history and etymology of the ‘sacrifice zone’ concept allows Colten and Reinert to identify when the concept became infused with moral connotations. This identification, informed by the concept’s agricultural history, enables Reinert and Colten to emphasise the role of morality and choice in the creation of a ‘sacrifice zones.’ This is shown as Colten notes that the current understanding of ‘sacrifice zones’ refers to the drive for industrialisation and economic gain which has taken precedence over environmental stewardship (2012, pg. 92), whilst Reinert asserts that the concept ‘sacrifice zones’ is used as a marker of an irreplaceable loss that disrupts the narratives of “smooth” transformation’ (2018, pg. 606). Colten shows that economic gain and industrial development have become a priority over environmental protection and Reinert furthers this point, explaining that using the ‘sacrifice zone’ concept explicitly addresses the environmental and social destruction caused by development. Noting where the concept gains its moralistic connotations, when transferring contextual environments, has allowed Reinert and Colten to depict the role of morality in the creation of ‘sacrifice zones.’

In this section I have shown how the acknowledgement of the agricultural history of the ‘sacrifice zone’ concept has enabled Reinert and Colten to identify the moment when this concept gained its moral connotations.

4.2.2. ‘Sacrifice Zones’ as a Critical Energy Concept.

This section will explore the work of Steve Lerner and Berit Skorstad, a Norwegian sociologist who addresses environmental sociology, ethics, and the institution’s role in the green shift. Both scholars have extensively analysed the concept of ‘sacrifice zones,’ from its history as a critical energy and environmental justice concept. There are multiple realities and histories of the ‘sacrifice zone’ which shape its use and the understanding of this concept, they are equally valid, and this section will consider the impact of these differing histories.

Skorstad and Lerner both explain that ‘sacrifice zones’ became a colloquial concept when the American Department of Energy referred to nuclear laboratories as ‘National Sacrifice Zones’ (Skorstad, 2023, pg. 97), a term that Lerner describes as “Orwellian and

coined by government officials to designate areas dangerously contaminated as a result of the mining and processing of uranium into nuclear weapons” (2012, pg. 2). For Lerner and Skorstad, the ‘sacrifice zone’ concept is portrayed as being formulated by the Federal Government of America, in reference to areas that were sacrificed for nuclear testing. Thus, their approach to the ‘sacrifice zone’ concept is guided by the notion that the concept has always been infused with moral connotations, it is intrinsically a concept that references injustice and a perceived lack of morality from those creating the ‘sacrifice zones’.

Skorstad presents three limitations of the ‘sacrifice zones’ concept which I shall address in this section, I do this to explore what the impact is of approaching the ‘sacrifice zones’ concept from different histories. The first of Skorstad’s criticisms is that the word sacrifice is misleading and ambivalent. Skorstad furthers this, questioning ‘Who performs the act of sacrifice and for whom is this a loss?’ (Skorstad, 2023, pg. 106). I support Skorstad’s limitation as Indigenous right holders perceive that they are forced to sacrifice their land, culture and right to self-determination whilst non-Indigenous stakeholders, employing a form of Utilitarian thinking, believe that sacrificing an area of land is in the interests of the nation. Different forms of sacrifice are presented here, and I have identified, in agreement with Skorstad, that sacrifice can be seen as misleading.

However, the latter two of Skorstad’s limitations, I will challenge as these can be explained when situating the ‘sacrifice zone’ concept in its other history, as an agricultural and conservationist notion. Skorstad’s second limitation is that the ‘sacrifice zone’ concept presents an assumption that the creation of a ‘sacrifice zone’ is inherently intentional and that the ‘sacrifice zone’ is valued because of its existence as a ‘sacrifice zone’ (2023, pg. 106). Skorstad articulates that the assumed intention to create a ‘sacrifice zone’ is a limitation, in the context of its history as a critical energy concept, the political ramifications of purposeful sacrifice are vast. However, situating the ‘sacrifice zone’ concept in its historical context as an agricultural concept, the assumed intent to sacrifice is accurate and is a strength of the concept: an intentional sacrifice is precisely what the concept aims to describe. As a conservationist technique, Skorstad’s critique that the ‘sacrifice zone’ is valued because of its existence as a ‘sacrifice zone’ is not a limitation of the concept, instead it is the direct intention of this concept.

Skorstad’s third critique is that the ‘sacrifice zone’ concept may not be relevant outside the North American political setting it is designed to describe, explaining that due to

the highly regulated political systems of the Nordic countries, the systems that have allowed the creation of ‘sacrifice zones’ in North America, may not be allowed in the Nordic countries (2023, pg. 106). Situating the concept in its history as an agricultural concept provides a different perspective of Skorstad’s purported critique. This is because, as an agricultural concept, the ‘sacrifice zone’ concept was not designed to describe a political setting; it was created to describe a conservationist technique in the agricultural sector. The impact of acknowledging different histories of the concept is evident here. If the ‘sacrifice zone’ concept is viewed through its history as a critical energy concept developed in the American political context, then Skorstad’s critique is insightful and highlights the tensions caused by transferring this concept across geographical contexts. There are certainly differing political systems in the Nordic countries and in North America and thus the transferability of the ‘sacrifice zone’ concept, across geographical and political boundaries, is not guaranteed to work. But if we are to consider this critique when situating the ‘sacrifice zone’ concept in its agricultural history, it does not have the same application as the concept was not intended to describe a political setting of any description, in any geographical context.

Lerner, as explored in Chapter Three, proposes an expansion of the environments and communities classed as ‘sacrifice zones.’ He challenges the ‘Orwellian’ nature of the ‘sacrifice zone’ concept, claiming that it perpetuates a government narrative that nuclear testing and toxic pollution supersede the rights of the environment and communities (Lerner, 2012). Lerner’s is critiquing the critical energy concept ‘sacrifice zones.’ As an agricultural concept, ‘sacrifice zones’ does not have political or moral connotations. If Lerner were to evaluate the concept with its agricultural history in mind, his criticism of the ‘Orwellian’ nature of the concept would be less applicable. That is because in its alternative historical context, the concept does not refer to the sacrificing of people or environment for capitalistic development and instead it is in reference to maximizing the production of crops.

This section has explored the impact of approaching the ‘sacrifice zone’ concept from two different conceptual histories. Reinert and Colten discuss the conservationist concept of ‘sacrifice zones’ whilst Lerner and Skorstad address ‘sacrifice zones’ as a critical energy concept. In essence, they are analysing two different concepts as critiques from scholars viewing this concept through an energy perspective are limited in their application to the conservationist concept.

Chapter 5: Comparing ‘Wasteland’ and ‘Sacrifice Zones.’

In Chapter Five I will address the similarities and differences between the ‘sacrifice zone’ and ‘wasteland’ concepts, as well as the impact of using these concepts. I have identified six themes that shall structure this chapter. Firstly, I will explore the malleability of the concepts and the impact of this, secondly, I will address the duality of perceiving value and how this influences the creation of sacrificial and wasted environments. I will then go onto explore the morality of both concepts before addressing the causal relationship between naming an area a ‘sacrifice zone’ or a ‘wasteland’ and the consequent creation of these areas. The final two themes are the impact of zoning techniques, and lastly, I will address whether these two concepts are used interchangeably.

5.1. The Malleability of the Concepts

Di Palma explains that there are two major traditions that ‘wastelands’ comes from: the biblical discussions of wilderness and the early-modern English context relating to landholding patterns (Misra, 2017). From this, she explains that it is the language used to describe ‘wastelands,’ not the noted physical characteristics of these areas, that unifies them (Misra, 2017). Di Palma acknowledges that it is the malleability of the ‘wasteland’ concept that enables it to be applied to multiple contexts. Ryan Juskus explains that it is the same for ‘sacrifice zones,’ it is the concept’s flexibility that encourages its use in many environmental and social injustices, weaving through different sectors and movements (Juskus, 2023). Skorstad argues, similarly to Di Palma and Juskus, that it is the transferability of the ‘sacrifice zone’ concept, outside of its traditional field, that indicates its usability in other fields such as scientific analysis (2023, pg. 104). These three scholars have explained that the concepts of ‘wasteland’ and ‘sacrifice zones’ are similar because they are flexible, and their continual conceptual development occurs because the concepts are inherently malleable and applicable to multiple social contexts.

5.2. The Duality of Perceiving Value

Another similarity of the ‘wasteland’ and ‘sacrifice zone’ concepts is the duality of how value is perceived in these areas. The ‘wasteland’ is both a place of biblical value and a place of wasted economic opportunity. Furthermore, the value of a ‘sacrifice zone’ is perceived opposingly by Indigenous right holders and non-indigenous stakeholders.

Di Palma explains that there is a duality of value regarding the ‘wastelands’ of Britain in the 1600s: in a religious context, the ‘wasteland’ was valued for its role as a biblical and

moral purgatory, an area that exists to test Godly devotion. However, in a societal and political context, the ‘wasteland’ was an area of underused land that was literally wasted away, this ‘wasteland’ has no value and is a societal sore (Di Palma, 2014). Thus, the two perceptions of valuing the ‘wasteland’ concept are contradictory, one interpretation of the ‘wasteland’ designates this area as having no value whilst the other attributes the value to its ability to test religious devotion.

‘Sacrifice zones’ are created from juxtaposing value systems where Indigenous right holders value land as a sacred place and the non-Indigenous stakeholders value the land because of its economic potential. Endres, a researcher of environmental rhetoric and Indigenous communication, applies Perelman and Olbrechts-Tyteca’s (1969) loci of the preferable to explain the duality of value: the Indigenous right holders value the land as a sacred homeland whilst the stakeholders, the federal government, values the land for its geological structure and extractive potential, for its role as a ‘national sacrifice zone’ (Endres, 2012, pg. 330; Perelman and Olbrechts-Tyteca, 1969).

5.3. The Morality of ‘Sacrifice Zones’ and of the ‘Wasteland.’

Reinert explains that for many cultures, a truly moral sacrifice renounces all reward and is constituted as an end rather than a means to an end (2018, pg. 600). On the other hand, de Souza, a professor of socio-spatial development and political ecology, explains the moral and religious connotations of sacrifice, as an act of offering a gift to a deity most often as a ritual slaughter of an animal or a person (2020, pg. 220). This form of sacrifice is done as an act of religious subservience and is a display of religious dedication differing from Reinert’s exploration of a sacrifice committed that renounces all forms of reward. Reinert’s concludes that the ‘sacrifice’ in ‘sacrifice zones’ cannot be a truly moral sacrifice, as there is an expectation for reward: the reward being the economic gain of extractive industries.

Di Palma applies the same notion of reward to her development of the ‘wasteland’ concept and its connection to morality. For Di Palma, ‘wasteland’ is laden with an ethical imperative, rooted in the Bible: an act of transforming the ‘wasteland’ is seen as a redemptive activity that’s going to save the individual, the society, and the nation, it is moral and economic work (Misra, 2017). The difference in the morality of ‘wasteland’ and ‘sacrifice zones’ is that it is a moral act to transform the ‘wasteland’ into usable land and it is immoral to transform land into a ‘sacrifice zone.’ de Souza argues that the creation of ‘sacrifice zones’

is implicitly and moralistically seen as a ‘purgatory’ (2020, pg. 225) which mirrors the biblical origins of the *westen* and later ‘wasteland’ depicted in the King James Bible (1611). In their exploration of the religious and moral connotations of the concept, their description of a ‘sacrifice zone’ resembling a purgatory and the sacrificial requirements of early religions, likens the concept to the biblical, barren ‘wasteland’ explored in Chapter One of this thesis.

5.4. Naming a Place

Many scholars have made the connection between naming an area a ‘wasteland’ or a ‘sacrifice zone’ and the consequent reification of these concepts (Voyles, 2015; Gross, 2019; de Souza, 2020; Endres, 2012; Lee, 2022). Endres claims that the ‘wasteland’ term is highly problematic as it could potentially lead to the creation of literal wastelands, arguing that labelling a place a ‘wasteland’ has a direct influence on its consequent transformation into a wasteland (Endres, 2009, pg. 930). Gross also articulates the causal relationship, explaining that through narrating the land as ‘wasteland’, it becomes ‘wastelands’ as people accept the narrative as reality and act upon it (Gross, 2019, pg. 94). Similarly, de Souza notes the relationship between naming an area a ‘sacrifice zone’ and the consequent transformation of this place into a ‘sacrifice zone’ (2020).

Winona LaDuke, an Anishinaabe activist and internationally renowned scholar on the sustainable development of renewable energy, explains that the term ‘wasteland’ is not a concept used by Indigenous Peoples when describing their land. Instead, it is used to describe what is left of their land after resource extraction and environmental destruction: their land has been turned from a sacred space into a ‘wasteland.’ (LaDuke, 1999). LaDuke is explaining that the label of Indigenous land as a ‘wasteland’ is done by the continuing colonial actions of resource extraction, deeming Indigenous land as an area that can be wasted thus begins the first stage of transforming the environment into a ‘wasteland.’ Furthermore, Erica Violet Lee reinforces this point, stating that “wastelands are named wastelands by the ones responsible for their devastation” (2022) which reinstates the notion that the label of a ‘wasteland’ is used to justify the consequent transformation of an area into a ‘wasteland.’

While the previous section explores the negative impact of naming an area a ‘wasteland’ or a ‘sacrifice zone,’ scholars Skorstad (2023), Endres (2009) and Berger and

Luckman (1967), explain that there is also value in these labels as they highlight the state-mandated sacrifice of lands for resource extraction. In the previous part of this section, Endres' work is used to explore the consequential relationship that exists between naming a place a 'wasteland' and the transformation of this area into a 'wasteland.' In the same piece of work Endres explores the work of Berger and Luckman (1967), both American-Austrian sociologists, to address how naming a place a 'wasteland' is a form of resistance.

Skorstad notes that the literature on sacrifice zones is closely connected to political activism and suggests that diagnosing a place as a 'sacrifice zone' can be a part of the activism whereby this designation has animated social movements and helped to slow down environmental damaging projects (Skorstad, 2023, pg. 103). Moreover, Endres claims that using the 'wasteland' discourse in the context of nuclear energy development can also create an opportunity for resisting these atrocities (2009).

5.5. Zoning Techniques

Robert Bullard, often referred to as the father of the environmental justice movement, explores the separation of types of land through the process of zoning within environmental racism (Bullard, 2024). He explains that historically, exclusionary zoning has been a subtle form of government authority and power to perpetuate discriminatory practices which result in the creation of 'sacrifice zones' (Bullard, 1993, pg. 23). Bullard explores the process of zoning in an American context whilst Rasmussen and Gjertsen acknowledge the significance of zoning procedures in Greenland. Rasmussen, a Swedish researcher, and Gjertsen, a Norwegian researcher, explain that formal zoning and planning procedures have enabled the creation of 'sacrifice zones' as the general legislation of land use does not apply to extractive activities which have been permitted under the Mineral Resource Act (2018, pg.15). This means that the state's zoning procedures have directly created 'sacrifice zones.'

Furthermore, de Souza is one of the few scholars who has provided an analysis of the words 'sacrifice' and 'zone' separately to explore the 'sacrifice zone' concept. The author explains that the term 'zone' is related to the state practice of zoning which means that the state is often directly responsible for providing the legal and material conditions which enable the transformation of a space into a sacrifice zone (de Souza, 2020, pg. 224). de Souza explains that it is the state's ability to formally declare an area, through the state apparatus of formal zoning, as one where industrial development can occur, that creates the opportunity

for this land to be turned into a sacrifice area (de Souza, 2020, pg. 206). Acknowledging the role of the state's land-use laws and regulations has had on the creation of sacrificed land, is also evident in the creation of 'wastelands' in 17th century England whereby formal zoning procedures included 'wastelands' in their planning of landscape gardens and architectural designs (Di Palma, 2014, pg. 232).

5.6. 'Sacrifice Zones' and 'Wastelands': Interchangeable?

One of the research questions that this thesis aims to answer is: are the concepts of 'sacrifice zones' and 'wastelands' used interchangeably? This section will explore my conclusion that while this is done very rarely, when this is done, it is done without any explanation or rationalising.

Ryan Juskus alludes to the interchangeability of the concepts 'sacrifice zones' and 'wastelands.' He does this when discussing Voyles' book *Wastelands*, discussing a section where Voyles explains how modern industrialization is justified through the othering of land, Juskus writes that "'wastelands', or 'sacrifice zones,' are the other through which modern industrialization is established" (Juskus, 2023, pg. 10). With no explanation or justification, Juskus presents 'wastelands' and 'sacrifice zones' as interchangeable, thus suggesting they are synonymous and that there is no difference between these two concepts. When beginning this research project, I assumed that scholars regularly used these concepts interchangeably but through the extensive research conducted for this project, I have only seen the concepts used interchangeably in this one instance, by Juskus.

Endres is the only scholar who I located who has published work on both 'sacrifice zones' and 'wastelands.' In both works Endres summarizes that naming an area a 'wasteland' has led to the consequent creation of this land as a 'National Sacrifice Zone' (2009; 2012). This is understood as a consequential relationship between the two concepts, they are not interchangeable. The creation of one is reliant upon the existence of the other. For Endres, deeming an area a 'wasteland' signifies that it is already lost, there is no healing of this barren place and so turning this into a 'sacrifice zone' is justified (2009; 2012). Endres argues that creating a 'sacrifice zone' is more purposeful than the existence of 'wastelands' as 'sacrifice zones' are created, purposefully and 'wastelands' simply exist.

Chapter 6: Conclusion and Findings

Although stemming from different countries and sectors, as well as undergoing significant conceptual metamorphosis, the ‘sacrifice zone’ and ‘wasteland’ concepts are now used in a similar way. Both concepts describe the destruction of, primarily Indigenous but also minority and local communities, land resulting from extractive, industrial and military development. They are used as accusatory concepts, highlighting the choice of the stakeholders to purposefully sacrifice a land area to pursue economic development. This answers the first research question: What do these two concepts explain?

Regarding the second research question, discovering the differences and similarities between the two concepts has been interesting throughout this thesis. It has become abundantly clear that the concepts ‘wasteland’ and ‘sacrifice zone’ are in a continual process of conceptual metamorphosis. Although Chapter Four explores the current use of the concepts, I now realise that every use of the concepts is another stage of development. The developments may not be as significant as those explored in Chapter Three, nonetheless, scholarly use of the concepts is a form of continuous development. Their transference across political, social, and geographical contexts is foundational for their development. The survival, the application and the inherent strength of these concepts is found in their transferability, applicability, and malleability to be influenced by their contextual situation. They are not static concepts; they are flexible and adaptable to new contexts. This is not a weakness of the concepts and instead, I argue, that this is why the concepts are able to be used in multiple contexts. This is the most prominent similarity between the two concepts.

A notable difference between the concepts is when they gained their moral connotations, this occurs at different stages of conceptual development of the ‘sacrifice zone’ and ‘wasteland’ concepts. The ‘wasteland,’ originally the *westen*, depicts a biblical purgatory that exists to test the morality of humanity and their dedication to God. This concept is created as a moral notion and through its later stages of development, retains and reinforces its relationship with morality. On the other hand, the ‘sacrifice zone’ concept obtains its moralistic characteristic when it is transferred from the agricultural sector and is used as a critical energy concept. It becomes a concept steeped in morality when it is used to describe the influence of decisions on humans, and not solely decisions that impact an environment. It is the connection to human suffering that attaches the moral connotations to this concept.

Building on this, one of the most significant findings from this research is the moral origin of the concepts. I had assumed that the ‘sacrifice zone’ concept originated from a

religious or biblical context as the word ‘sacrifice’ is so often associated with this origin. It was very interesting to learn that this was the case of the ‘wasteland’ concept and not for the ‘sacrifice zone’ concept.

The meaning of the ‘wasteland’ concept has been inverted. The *westen* originally referred to a biblical purgatory that tested humanities morality, whereas the current ‘wasteland’ describes a place that has been destroyed because of humanities’ immorality. The concept ‘sacrifice zone’ has retained a similar definition throughout its continuous development, whilst it has been used in multiple social contexts, the understanding of what constitutes a ‘sacrifice zone’ has remained constant.

The concepts ‘wasteland’ and ‘sacrifice zones’ are used primarily by scholars and academics, and I will build on this to answer the third research question: Who is using the two concepts and in what contexts?

In this thesis I have addressed the work of many scholars who have used the concepts ‘wasteland’ and, or ‘sacrifice zones’ in their work. As seen throughout this thesis, there is much more work conducted on the ‘sacrifice zone’ concept than on the notion of ‘wasteland.’ That said, the work that utilises the ‘wasteland’ acknowledges the history and conceptual development of this concept. Voyles, prior to developing the ‘wastelanding’ verb provides an in-depth history on the ‘wasteland’ concept that strongly informs her consequential development of the term. Similarly, Gross utilises Voyles’ verb ‘wastelanding’ but prior to this, Gross provides a significant explanation of Voyles’ work on the ‘wasteland’ discourse and explores Voyles’ development of the verb. Although not as frequently as ‘sacrifice zones,’ I argue that when the ‘wasteland’ and ‘wastelanding’ concepts are used in scholarly work, they are done so with the concept’s history and developments of the concept in mind. That said, none of the published research that uses the ‘wasteland’ concept note the biblical origins of the concept.

Whilst the ‘sacrifice zone’ concept is more widely used; it is only Colten and Juskus who acknowledge the agricultural history of the ‘sacrifice zone’ concept. I have argued in this thesis that approaching the concept from this history, instead of its later histories as a critical energy concept, allows the scholars to identify when the notion of morality became attached to the concept. There is a slight difference between how the ‘sacrifice zone’ concept is used in Nordic and American contexts, in the Nordic context, the ‘sacrifice zone’ concept

primarily references environmental destruction cause by the Green Shift. But in an American context, the ‘sacrifice zone’ concept is used more in connection with fenceline communities, as explained by Lerner, than in an energy context. I have explored Lerner’s expansion of the ‘sacrifice zone’ concept in this thesis and his development has widely become the accepted understanding of this concept in an American context, many of the authors I have written on use Lerner’s definition of the concept. This answers the fourth research question: Are there geographical differences between the use and understanding of these two terms? I did not find notable differences between the use of ‘wasteland’ or ‘wastelanding’ in different geographical regions, it is used to refer to the same actions globally.

Regarding whom uses the concepts and why, I would conclude that the concepts are primarily used by scholars and academics. The ‘sacrifice zone’ concept is certainly more widely used but it is also engaged with analytically to a lesser degree and scholars have accepted prior definitions of this concept without challenging the history or development.

The final research question is: What terms do Indigenous scholars use? I do not know if I can answer this directly, but I can speak to findings that relate to this question.

Indigenous scholars LaDuke and Erica Violet Lee have noted that the ‘wasteland’ concept is used by those committing the sacrifice and not by those whose land or bodies are being sacrificed. Using the concept is a way of articulating the power dynamics behind the concept and using the concept highlights its analytical meaning to explain the mechanisms behind destruction. Scholars such as Skorstad and Endres have argued that using these concepts is a form of resistance, highlighting the immoral nature of creating these areas. This is another notable difference I have found between the two concepts, there has been more Indigenous engagement and development of the ‘sacrifice zone’ concept, by Means and Redhouse, during its time as a critical energy concept. ‘Sacrifice zone’ developed its first connections with theology and morality from Indigenous use of the concept. I certainly cannot claim to know if Indigenous scholars, thinkers and communities support the use of either concept but, from the research gathered in this thesis, I can say that the Indigenous scholars I have found and read, have engaged more with the ‘sacrifice zone’ concept and those who have engaged with the ‘wasteland’ concept, have highlighted the use of this by those doing the sacrificing.

When first starting this thesis, my biggest concern with the scholarly use of ‘sacrifice zone’ and ‘wasteland’ was the lack of engagement with the origin of the two concepts. I thought it was a limitation of the scholars’ use of the concept, to not address the biblical origins of the ‘wasteland’ and the agricultural origins of the ‘sacrifice zone’ concept. Having now addressed the work of many scholars using these concepts, I wonder how important it is, to engage with the origin of the concepts. All scholars who use ‘sacrifice zone’ and ‘wasteland’ have acknowledged one of the multiple histories of the concepts. Whether or not the purported origin of the concepts has been acknowledged does not limit the scholars use of the concept, instead addressing the concepts through different histories highlights the many stages of conceptual development. All the histories are valid and approaching the concepts through various histories, illuminates the multiple influences that societal context, geographies, and political environment have had on their development.

The findings that I have concluded in this thesis add a comparative genealogy to the ever-growing discourse on these concepts. The research produced from this thesis is relevant for the theoretical development of terms and concepts used in academic contexts as well as colloquial and political settings. Through the extensive literature review that was conducted for this thesis, I did not find any scholarly work that compares and evaluates the development of both concepts. Because of this, this thesis contributes in a unique way to the increased understanding of the concepts used in environmental justice discourses and the implications of language. I identified that the ‘sacrifice zone’ concept is used far more than the ‘wasteland’ concept which suggests that there is a wider recognition of this concept in the framework of describing environmental degradation and consequent impacts of this. This also suggests that scholars have deemed the ‘sacrifice zone’ concept more relevant and applicable. I have also provided an understanding of the role language plays in shaping our perception of environmental and social issues, shown through the juxtaposition of ‘sacrifice zones’ beginning as an agricultural concept, and ‘wastelands’ developing this meaning. This could be further developed by looking into for example the Spanish language literature using this concept. Furthermore, I have highlighted the contextual differences in how the ‘sacrifice zone’ concept is used differently in an American and Nordic context which showed the need to consider the different application of language and concepts in the environmental discourse. I have also shown a critical perspective, provided by Indigenous scholars who highlight the colonial origins of the ‘wasteland’ concept which emphasizes the need to acknowledge colonial legacies when discussing environmental destruction of Indigenous land.

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Appendix

Table of Concepts

Concept	Author	Definition	Where is this term used?	Geography	Why was this term developed?	When	Additional Information
Sacrifice Zone							
	Marcelo Lopes de Souza	'A sacrifice zone is a space in which the quality of life, as well as the physical and mental health of human beings, are compromised in the name of 'progress' and ultimately for the sake of capitalist interests (2020, pg. 220).'	'sacrifice zone': The environment–territory–place of disposable lives. <i>Community Development Journal</i> , 56(2), 220–243. https://doi.org/10.1093/cdj/bsaa042	Worldwide use of the concept is analyzed and not a specific countries application of the term.	Capitalist critique and environmental justice movement term.	2020	Refers to Foucault's biopolitics and biopower.
	Ryan Juskus	The sacrifice zone concept originated in livestock management, was then used an energy justice concept, afterwards it became a critical concept for opposing the human and environmental costs of abstract collective	Sacrifice zones. <i>Environmental Humanities</i> , 15(1), 3–24. https://doi.org/10.1215/22011919-10216129	United States.	Conducting a genealogy of the term to better understand how it should be used in academia.	2023	Refers to Voyles' definition of 'wasteland' and to Lerner's definition of 'sacrifice zones.'
		projects like development, consumerism, and militarism (2023, pg. 5)					
	Berit Skorstad	The concept of 'Sacrifice Zones' (SZs) describes the negative effect on nature, communities, and human health in the immediate Surroundings, caused by extractive industries (2023, pg. 97).	Sacrifice zones: A conceptual framework for arctic justice studies? <i>Arctic Justice</i> , 96–108. https://doi.org/10.56687/9781529224832-012	Analyses the term in a Nordic and Arctic context.		2023	Refers to Sacco and Hedges.
	John Redhouse	The concept 'sacrifice zones' attained a tragic socio-ecological dimension: within a context of severe constraint and injustice, is the pursuit of survival and liberation best served by sacrificing Indigenous land and values or prolonging Indigenous poverty and marginality.	"Desert Rock: 1953–2003," unpublished <u>Diné</u> care internal report, March 2007.	Navajo Land	Redhouse used this term in the 1980s as a form of environmental activism.	2007	His writings and organizing against contamination from uranium and coal mining were foundations for the environmental justice movement that emerged in the 1980s and the climate justice

							movement of the 21st century.
David Boyd	A sacrifice zone can be understood to be a place where residents suffer devastating physical and mental health consequences and human rights violations because of living in pollution hotspots and heavily contaminated areas	UN Human Rights Council Report https://www.theguardian.com/environment/2022/mar/10/millions-suffering-in-deadly-pollution-sacrifice-zones-warns-un-expert	Canada	Environmental rights movement.	2022		
Steve Lerner	Lerner proposes that the 'sacrifice zone' concept designation should be expanded to include a broader array of fenceline communities or hot spots of chemical pollution where residents live immediately adjacent to heavily polluting industries or military bases (Lerner, 2012, pg. 3).	The Front Lines of Toxic Chemical Exposure in the United States.	United States of America.	Lerner develops this concept to describe communities and land that are impact by chemical pollution and industrialization, goes beyond its critical energy history.	2012		
Bruce Hamilton	Hamilton combines energy independence and the expansion of coal, to display how the 'sacrifice zone' concept communicated moral and theological connotations from its very moment of transference from livestock to energy	Federal Coal Leasing Program, pt. 2, Hearings before the Subcommittee on Minerals, Materials, and Fuels of the Committee on Interior and Insular Affairs, 93rd Cong., second session (April 18, 1974) (statement of Bruce Hamilton).	United States of America.		1974		
Craig Colten	Colten explains that 'sacrifice zones' are places where the drive for industrialisation and economic gain has taken precedence over environmental stewardship' (2012, pg. 92).	An incomplete solution: Oil and water in Louisiana. <i>The Journal of American History</i> , 99(1), 91-99.	United States of America.		2012		
Hugo Reinert	'Sacrifice Zones' captures a relationship between destructive violence and disposability, it is usually used to describe forms of environmental violence, degradation and destruction that operate spatially, at the level of landscapes and regions.' (2018, pg. 598).	Notes from a Projected Sacrifice Zone. <i>ACME An International Journal for Critical Geographies</i> , 17(2).	Norway	Environmental and Indigenous justice context.	2018		
Dayna Nadine Scott and Adrian A. Smith	'Sacrifice Zones' are areas where disadvantaged communities and landscapes have been disproportionately contaminated and neglected in the name of	"Sacrifice Zones" in the Green Energy Economy: Toward an Environmental Justice Framework.	Canada	Exploring the relationship between 'sacrifice zones' in the fossil fuel era and greener energy development.	2017		

		capital accumulation' (2017, pg. 866).					
Danielle Endres		A sacrifice zone is the result of federally approved nuclear testing and consequent destruction of land, it is the prioritization of societal needs over the individual (Endres, 2012).	'Sacred Land or National Sacrifice Zone: The Role of Values in the Yucca Mountain Participation Process.'	United States of America.	Value systems and nuclear testing.	2012	
Green Sacrifice Zones							
Zografos and Robbins		Zografos and Robbins argue that the premise of the 'sacrifice zone' concept can be expanded to include people and populations that will be affected by the sourcing, transportation, and operation of solutions for powering low-carbon and propose the concept 'Green Sacrifice Zones' to describe this expansion transitions (2020, pg. 543).	Robbins, P., & Zografos, C. (2020, November 20). <i>Green sacrifice zones, or why a Green New Deal cannot ignore the cost shifts of just transitions</i> . One Earth. https://www.sciencedirect.com/science/article/pii/S259033222030542X	United States of America.	Develops GSZ to apply the concept to renewable energy contexts.	2020	
Åsa Össbo		Green Sacrifice Zones are a form of climate colonialism where minority peoples carry a heavier environmental	Össbo, Å. (2023). Back to square one. green sacrifice zones in Sápmi and Swedish policy responses to energy emergencies. <i>Arctic Review on Law and Politics</i> , 14.	Sweden		2023	
		burden resulting from asymmetric power relations and societal conceptions of core and periphery (2023)	https://doi.org/10.23865/arctic.v14.5082				
National Sacrifice Areas							
The Federal Government of America		First place that the 'National Sacrifice Areas' concept was used in connection to nuclear and energy development.	National Research Council's report entitled <i>Rehabilitation Potential of Western Coal Lands</i> (1974).	United States of America.	Used to describe sacrificed land, sacrificed for nuclear and energy development.	1974	
Russell Means		Theoretically enriches the concept developed by Redhouse and connects the 'sacrifice zone' concept with the sacrifice of an entire peoples, the sacrificing of Indigenous land and community is first noted by Means.	Means, Russell. (1983). "The Same Old Song." In <i>Marxism and Indigenous Americans</i> , edited by Ward Churchill, 19–34. Boston: South End.	United States of America.	Expands the notion of sacrifice beyond environments, in an Indigenous and environmental justice context.	1983	Means is against Marxists alliance with Indigenous communities as he <u>believe</u> Marxism was another form of colonial industrialization.
Environmental Sacrifice Zones							
Robert Bullard		He explains that historically, exclusionary zoning has been a subtle form of government authority and power to	Bullard, R. D. (1993). The Threat of Environmental Racism. <i>Natural Resources & Environment</i> , 7(3), 23–56.	United States of America.	Indigenous and environmental justice context.		

		perpetuate discriminatory practices which result in the creation of 'sacrifice zones' (Bullard, 1993, pg. 23).	http://www.jstor.org/stable/40923229				
Westen							
	The Old Testament	The westen is a place where individuals are sent by God, a place of trial and tribulations, full of menacing creatures.	https://esv.literalword.com/contents/	England	Biblical concept	Between 1200-165 BC.	
	The New Testament	The westen is the same place of trials and tribulations but it is a choice to enter, where individuals can acquire and demonstrate sanctity.	https://esv.literalword.com/contents/	England	Biblical concept	Between 50-100 AD.	
Wasteland							
	Gerrard Winstanley	Wasteland describes land that is outside of private property and is underutilized, this land should be used for the common people and for the common good.	Manifestos and Legal Documents: Winstanley, G. (1648). The New Law of Righteousness. Works of Gerrard Winstanley. Winstanley, G. (1649). The True Levellers Standard Advanced. Works of Gerrard Winstanley.	England	The Diggers: Social Reformist Movement	1648-9	
	Erica Violet Lee	'wastelands are named wastelands by the ones responsible for their devastation' (2016)	https://gutsmagazine.ca/wastelands/	Canada	Philosophy	2022	
	Winona LaDuke	The 'wasteland' concept is not used by Indigenous Peoples to describe their land but is instead used by Indigenous Peoples to describe what is left of their land after resource extraction (1999).	'All our relations: Native struggles for land and life.' South End Press.	United States of America	Indigenous rights context	1999	
	John Locke	The 'wasteland' describes areas that not been improved by agricultural development. Locke believed that labour of the land and the consequent improvement of the land were moral and economic imperatives, thus the 'wasteland' was a wasted area.	Two treatises of government (M. Goldie, Ed.). Everyman.	England	Philosophy	1999	
	Victoria Di Palma	A wasteland is a landscape that resists notions of proper or appropriate use. But this is only part of the story. The fact that a term originally used to denote landscapes that stood apart from or outside of human culture is now frequently applied to sites	'Wastelanding: A History.'	United States of America.	Investigating the shift in human attitudes towards technology and towards our place within nature.	2014	

		that have been ravaged by industry, abandoned by the military, or contaminated by chemical waste, points to something more (2014, pg. 3).					
	The King James Bible	The wasteland was the landscape whose transformation by a community could result in redemption for all: a spiritual redemption to return to God's divine path and a physical redemption where the land could flourish once again	The Bible. (1611) Authorized King James Version.	England		1611	
	Traci Brynne Voyles	The wasteland is a racial and spatial signifier that renders an environment and the bodies that inhabit it pollutable (2015, pg. 9).	'Wastelanding: Legacies of Uranium Mining in Navajo Country.'	United States: New Mexico, Arizona	Uranium Mining	2015	
	Danielle Endres	The wasteland is used to reference an area that is barren, arid and uninhabitable for humans, under nuclear colonialism, 'wastelands' are created by nuclear development and nuclear waste storage (Endres, 2009, pg. 923).	'From wasteland to waste site: The role of discourse in nuclear power's environmental injustices.'	United States	Uranium mining and nuclear waste storage	2009	
Wastelanding							
	Traci Brynne Voyles	'Wastelanding' is a process of two stages: first is the assumption that nonwhite lands are valueless, or only valued because of their resource potential, second is the subsequent devastation of those environments by polluting industries (2015, pg. 10). The process of 'wastelanding' reifies what might otherwise be only discursive (2015, pg. 10).	'Wastelanding: Legacies of Uranium Mining in Navajo Country.'	United States: New Mexico, Arizona	Uranium Mining	2015	
	Lena Gross	Refers to Voyles for the definition of 'wastelanding' which is: 'the mapping of Navajo land and, by extension, other kinds of lands rendered pollutable through discourses of race, gender, class and/or sexual difference as 'wasteland' (2015).	'Wastelanding the Bodies, Wastelanding the Land. Accidents as Evidence in the Albertan Oil Sands.'	Canada	Oil Sands	2019	

