

**Pluriversal Economic Systems and the “Obligation to Incorporate”:
A Loss Valuation Review**

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Executive Summary

The 2022 Hermits Peak Calf Canyon Fire (HPCC) began as a prescribed burn in the Santa Fe National Forest. The fire burned consistently between the dates April 6, 2022 -August 21, 2022, and the damage zone consisted of 341,471 acres, making it the largest wildfire in New Mexico's history. The United States Forest Service claimed responsibility for the fire in the summer of 2022, which added a level of culpability to the disaster relief preparations being made at the time. In the wake of this disaster, \$4 Billion has been allocated to compensate victims of the wildfire. The village of Mora is historically marked as one of the lowest income counties in the United States, and the compensation package approved by the US Congress would be the largest injection of capital in the history of the community. Despite this, the compensation process has proven difficult, often frustrating community members to the point where the process is marked by violence and public outrage. Of the \$4 Billion allocated to the village of Mora and the surrounding communities, \$1 Billion has been budgeted to administer the compensation, largely due to the complex composition of the community and the degree of "informality" that the government is compelled by congressional decree to serve. Unlike most compensation cases, the category of "subsistence" work has been authorized as a valid category, leaving open a possibility for a broader set of livelihoods to receive compensation. This has compelled the Federal Emergency Management Agency (FEMA) to develop additional practices and staff to assist in making determinations for practices it normally would not authorize.

Furthermore, the community of Mora is the only county seat in the United States that is unincorporated. The lack of a municipality further places Mora on the margins of bureaucratic processes that have long been the standard for disaster relief. This resistance to incorporation is informed by a long and unique set of political and social interactions that have made it a site of contested power for over 300 years. As part of the hinterlands of the Spanish Empire and before that a site of Indigenous conflict between Pueblo and Comanche peoples, the Mora Valley is a complex, multilayered system of practices, people, and landscapes that inform what FEMA would normally characterize as "informal". Many practices within the community have chosen not to "incorporated", which has made it more difficult to assess how to compensate and by doing so "make whole" the damage caused to this community. This paper serves as a starting point for a variety of research projects designed to confront the following questions:

How does economic value translate across and within a pluriversal economic system?

How do compensation systems assess damages and losses while avoiding the harm caused by the "obligation to incorporate"?

As such, the paper takes the form of both a critical analysis of the problem of “pluriversality” while also reviewing the historical conditions that make Mora a place that resists the “obligation to incorporate”. To achieve this, the project is separated into two parts.

Part I defines the problem of “the obligation to incorporate” as it relates to the community of Mora, New Mexico and the compensation process for victims of the 2022 Hermits Peak Calf Canyon (HPCC) wildfire. Because of political and historical circumstances, and the events that caused the HPCC, Mora currently stands uniquely protected from what we refer to as the “obligation to incorporate” which has produced an irregular possibility for cultural and ecological factors to be accepted within the bureaucratic compensation process. We describe what factors have produced this “protection” from the obligation to incorporate while also revisiting how compensation structures deal with intangible value as a “pluriversal” problem. We spend time describing and establishing what a pluriverse is and what a pluriversal economy looks like. As part of that exploration, we identify some of the fundamental problems associated with translating issues of compensation from a dominant economic system as they encounter systems that are grounded in livelihoods and practices that appear foreign to that dominant system. This includes the highly problematic issues of evidence and authenticity, which when applied to the compensation processes as a qualification for compensation, may further harm victims and exacerbate structural inequities. For example, during the compensation process, places such as Pendaries Village, which is both an incorporated village and an incorporated shareholder-owned resort, have experienced a relatively expedited compensation process. This is largely because of the village’s alignment with what FEMA expects in terms of economic and market valuation. In contrast, people within the communities that constitute Mora have struggled to get their paperwork processed, often resulting in demonstrations of public frustration and resistance to the process. Even within Mora, those who have businesses or livelihoods with identifiable market value have received compensation ahead of others, straining relationships within the community, and creating a divide among those who have chosen more traditional livelihood practices. When disaster occurs, the parts of economies that are “formal differently” in these communities are often forced to transform to align the dominant bureaucratic and economic sphere of influence (i.e. FEMA and other administrative assistance). During Hurricane Katrina, those most vulnerable to the effects of flooding and storm damage received unequal compensation to those who had forms of private support (high paying jobs, insurance). Many of these inequities resulted from the lack of paperwork and bureaucratic

status that places like FEMA use as the basis for their requirements (Holtz-Eakin, 2005). We use the concept of “the obligation to incorporate” to help illustrate how these power dynamics work and how in the case of Mora, that cannot happen as it normally would. This review builds upon the literature of “disaster capitalism” which identifies several key issues with economic interventions upon communities during times of ecological and environmental crisis (Klein, 2007).

Part II applies a critical theory approach referred to as “partial ontological layering” to the compensation problem. Communities that encounter environmental crisis come in many different shapes and sizes. Some contain what literature once referred to as “informal economies” or “parallel economies” (Lindauer, 1989). This paper spends time conceptualizing a “pluriverse”, which helps to define the conjoined “ways of being” that are at stake during a disaster (or any other existential threat). The term “pluriverse” is gaining popularity among a subset of development and critical economics scholars to explain the intersection of competing but co-existing realities (Escobar, 2020). Building upon this terminology are opportunities to consider issues such as compensation, economic development and other important parts of both environmental and ecological transformation.

Using a layered topology of a hypothetical compensation claim in the HPCC fire, this paper examines how compensation may begin to account for private losses (persons) in addition to three other key layers: practice, place, and people (community and tradition). To help make a concept of pluriversal compensation more legible, we identified several important starting points:

- Connection to Nature. Nature’s distance from economic logic is a broad historical problem, but in times of crisis, those whose practices are land based tend to be marginalized because those practices often operate outside of the dominant bureaucratic system. In the case of Mora, a land-grant community with significant intersections with indigenous communities, the economic values of the region emanate from a relationship with nature this is foreign to the community.
- Translation. Translating from one system to another involves a variety of processes that either *foreignize* or *domesticate* one’s practices to another. In the case of Mora, the FEMA process has elements of both. It is foreignizing parts of the community that are difficult to translate into the compensation process while also domesticating some livelihoods into the normalized taxation and market valuation process. The degree to which something is foreignized or domesticated will determine the impact of compensation on the health and resilience of Mora as a community.

We then explored each ontological category as a site for rethinking compensation. For example, when thinking about place, one may consider a place as a credible, legal recipient of compensation should an

adequate agent be identified (i.e. a land trust). Within these layers, the tension between individual and collective influence is noted and problematized.

Using a hypothetical case of a curandera (named after a revered member of the Mora community, Doña Gabrielita), we initiate a hypothetical discussion of how damages and losses could be assessed for an individual with deep cultural ties to a highly foreignized system. By identifying her claim under the four ontological categories (person, practice, place, and people) one can begin to broaden the compensatory horizon at work for each individual in addition to the community.

Both parts establish a foundation for conceptualizing loss valuation for those affected by ecological and environmental crisis, particularly in places where “informal” economies dominate. Informed by a series of perspectives on ecological and environmental crisis. While compensation processes have great transformational power (i.e. economic development potential), they also run the risk of de-incentivizing economic behavior and economic values that are essential to sustaining traditional practices. Consequently, a community identity can change irrevocably if the dominant economic sphere intervenes without understanding the broad implications of their interventions, especially when the urgency to act is a factor. More studies are needed to understand value and economic choices that are contained within a “pluriverse”, a concept that has broad implications for how we deal with a variety of economic systems, including systems we currently label as parallel, underground, illicit, black-market, barter, and mutual aid. In the case of Mora, it helps to establish a claim that the current compensation framework may be just as damaging as the wildfire that prompted it but also has the potential of transforming how dominant economic systems and policies interact with a variety of systems and the values that each system maintains.

The process of conceptualizing this paper involved community discussions as well as lengthy discussions among the co-authors. As the paper developed, certain ideas that we thought would inform a compensation framework were not applied. To this end, we added an Appendix (Appendix 1) that documents those discussions to help the reader understand some of the potential ideas that may inform this problem for future study. Furthermore, an in-depth review of the non-market compensation literature was produced. A limitation of the paper was that it has not yet placed that literature in the context of the hypothetical framework established in the paper. This will be achieved in future work, but that review is available for the reader’s consideration (Appendix 2).

Last, but certainly not least, this concept piece serves as a reminder to all stakeholders that places like Mora are often described or treated as “backwards” and deserving of support to develop or become more sophisticated. Neither is the case. The community of Mora, when viewed in its full array of historical and cultural dimensions reveals itself to be highly sophisticated, and its resistance to incorporation may be for reasons that elude the current work done by FEMA. Mora’s choices, historically rich and multi-dimensional, may have a value that can be applied to similar situations in the future. The degree to which we can translate those values back and forth is the work at hand. This paper will hopefully add some of that perspective to make both the compensation process and the compensation itself operate within a more informed and more culturally supportive context.

Introduction

The 2022 Hermits Peak Calf Canyon Fire (HPCC) began as a prescribed burn in the Santa Fe National Forest. The fire burned consistently between the dates April 6, 2022 -August 21, 2022, and the damage zone consisted of 341,471 acres, making it the largest wildfire in New Mexico's history. It affected several counties in Northern New Mexico (Mora, San Miguel, and surrounding counties), primarily in forestlands containing several dozen communities situated in the Sangre de Cristo Mountains. Due to strong winds and a confluence of other drought and heat conditions, the initial fire (Hermit's Peak) merged with a second fire (Calf Canyon) on April 22nd, which accelerated the damage caused to the region. The United States Forest Service claimed responsibility for the fires and issued a public apology on April 11th, 2022. On May 4th the Biden Administration declared a federal disaster and shortly thereafter, The 117th Congress passed S.4186 which established that victims of the fire would be compensated for "personal injury, loss of property, business loss, or financial loss"; however, debate quickly ensued about the breadth of the compensation and whether it would adequately include the livelihoods of the many community members whose activity were not easily legitimized by formal government processes. This prompted H.R. 6833-59, which further defined compensation parameters to include costs resulting from "lost subsistence" and addressed issues such as "cascading events" prompted by the wildfire. The Federal Emergency Management Administration (FEMA) published its final rule on August 29, 2023, the conditions for compensating victims of the HPCC. The New Mexico Legislature provided additional support through House Bill 10. In total, compensation for the HPCC wildfire has reached approximately \$4 Billion with a large portion (estimated at \$1 Billion) of that amount designated to administering and allocating compensation to victims over the next 8 years.

With a total population of roughly 30,000 people who lived in the burn region, questions regarding the efficacy of the compensation structure have been presented. However, more fundamentally, it is the nature of compensation as a formalizing instrument that presents several unique problems. In the backdrop of people losing homes, losing time, and experiencing trauma during the height of the crisis lies the massive cultural and ecological implications of the fire. The fires fundamentally changed the landscape of the region, which includes practices and traditions that predate the existence of the federal government or the public lands that now define much of the burn zone. The combination of native and indigenous lands, Spanish Colonial rule, and the legacy of United States Westward Expansion and the Mexican American War are all tied into the region and many of these unresolved historical conflicts have now come to the surface once more, which has further complicated the conditions whereby people are

thinking of “being made whole” by any compensatory process. Many community members, whose livelihoods are not “incorporated” into what the government would recognize as legitimate or qualified for compensation are now in a unique set of circumstances where they are entitled to compensation, but responsible parties are not equipped with a vocabulary that can adequately address compensation. Given the culpability of the government, it does not have the ability to “obligate incorporation” in a manner that it has practiced in similar situations in the past.

Several challenges present themselves as federal agencies engage with communities, including those seeking compensation for their losses through legal or other bureaucratic measures. Among those challenges are the incompatible and/or incommensurate economic systems that drive the region, historically understood as informal, mutual aid driven economies. While some community members can file for compensation through federal agencies, most do not have livelihoods, accounts of assets, or resources that qualify for federal compensation, either because income or other assets are undocumented or are not seen as valid resources according to federal standards. Thus, many affected by the fires have few options for compensation. Unlike situations where federal agencies have compelled communities to have formal paperwork to qualify for compensation (e.g. Hurricane Katrina), the fact that the federal government started the wildfire means that the relief process is distinct. The obligation to produce paperwork in the conventional way therefore may impose an undue burden on the community and may also re-ignite historical traumas grounded in colonialism. Scholarship on disaster economies has argued for more diverse empirical frameworks to support communities such as those affected in this case (Montoya, et. al, 2023).

The village of Mora is the only unincorporated county seat in the United States and has been since the 1980s (Mora, 2011); it contains no charter or municipal constitution. Critically, the region referred to as “Mora” is a system of communities connected by the Indigenous/Spanish Colonial system that consolidated after the Pueblo Revolt of 1680. Its land grant was established by Mexico through Governor Albino Perez in 1835 and then recognized by the United States at the end of the Mexican American war through the Treaty of Guadalupe Hidalgo of 1848 (Benavidez and Golten, 2008; US GAO Report, 2004). The establishment of the Mora Land Grant serves as the most influential and enduring economic framework in the region. It is also a rare opportunity to understand how parallel economic systems develop discreetly in relation to dominant hierarchical systems.

Using the compensation process for the HPCC wildfire as a starting point, the primary intention of this paper is to establish a foundation for conceptualizing loss valuation for those affected by ecological and

environmental crisis. Informed by a series of perspectives on ecological and environmental crises, this paper will review several tools used to provide loss valuation, particularly in cases where damages and losses are intangible. Using a critical approach, this paper will explore the case of Mora as a problem of “partial ontological layering”, a framework intended to facilitate broadening the compensation process and its ability to grapple with informal economies, non-market valuation, and cultural and community losses as communities navigate the bureaucratic processes associated with compensation. Because these communities have escaped “the obligation to incorporate”, more room will become available to broaden compensation. As such, this serves as an exploration of compensation and the expectations associated with compensation frameworks within a context in which a combination of different rules, values and world views coexist in a highly pluriversal system.

The work proposed herein will review the literature on parallel and “informal” economies to determine how individuals and communities calculate losses in situations where intangible value or non-market value is a significant factor. Furthermore, we will define the problem of the “obligation to incorporate” to demonstrate how market valuation may occur when dominant systems are prevented from forcing valuation to conform to its own standards. This work contributes to the literature on developmental economics, specifically as it relates to informal and parallel economies, while also contributing to critical theory as it relates to economic and environmental crises. Through this review, this paper will present a series of approaches to calculate loss. Using a framework called “partial ontological layering” we will attempt to place what we know about compensation and loss calculation in the context of four primary “layers”: persons, practices, place, and people. Within each layer, we will discuss how compensation may intersect at points that are legible between different economic systems and explain why keeping them separate may be important to sustain conditions of cultural legitimacy and resiliency. To achieve this, we will introduce concepts such as net present value and market-driven assessments of situations wherein historical and cultural losses may be introduced to account for long-term losses. This includes discussions regarding the challenges associated with assigning value to assets or processes that may be designed to resist such valuations. Using the HPCC fire and a hypothetical claimant as a point of reference, we will then discuss implications for policy makers and support networks to consider commensurate pathways to compensation when the state has an obligation to provide support.

Part I

Problem: The obligation to incorporate, subsistence, and “formal differently”

Central to the compensation issues occurring in Mora is a concept we herein refer to as “the obligation to incorporate.” Generally, we may define the obligation to incorporate as a set of requirements placed upon one person or group over another person or group to facilitate or establish a process. This obligation is often seen as necessary by the “obliger” to fulfill its purpose. Hence, all parties working together become included into a part or a whole and are seen as “incorporated”.

Any organization (communities, governments, and businesses) inherently develops the need for shared meaning and practice. In cases where crisis, such as an environmental or ecological disaster has occurred, the tensions that inhere in creating shared meaning (which then produce standards that define an organization’s behavior) invariably impact the most vulnerable within a population. In 2005, when victims of Hurricane Katrina sought disaster relief assistance from FEMA, those without consistent employment and those with the least amount of insurance coverage were often the ones who received the least support. In some cases, this took the form of harsh treatment by FEMA administrators who forced claimants to comply with the often-complex bureaucratic requirements for aid (Westley, et. al, 2008). In many cases, to approach FEMA was seen as precarious, either because individuals feared they would be judged for not qualifying for the aid or because they felt that the government would persecute them for not having full paperwork such as tax filings to substantiate their income. From the government’s perspective, constituents needed to fill out what it perceived as basic requirements to qualify for aid. From the constituent perspective, this imposition was seen as an instrument of conformity, which resulted in sentiments of disenfranchisement and criticisms of systemic discrimination (Blessett, 2015). FEMA’s aid relief during Katrina often excluded its most poor, particularly Black communities within the Lower Ninth Ward and over time has become an illustration of the unintended consequences of strict bureaucratic processes. By enforcing bureaucratic requirements at a time of extreme need, FEMA’s “obligation to incorporate” may have had the dual effect of rewarding people who were already well-incorporated with the bureaucratic system while performing an additional harm to underserved populations, whose marginalization within the system made it even harder to recover from the flooding that took their homes and their livelihoods away from them. This has already resulted in threats of violence towards claims offices, in what local media have characterized as an inability to “fully compensate” for what the community believes has been lost.

As a problem in organizational theory, Chambers suggests that the tensions that arise between organizations that contain different values, worldviews, and purposes (in a sense, a “reality”) are prone to conflating how they organize with what the organization stands for and how it functions (1998). To obligate incorporation, particularly at a time of great vulnerability or crisis, is a point of organizational failure where an organization is trying to preserve its legitimacy at the moment when it most likely should rethink or reorient itself to meet changing conditions. This doubling-down effect normally is where uneven power, violence, or exploitation occur and is one of the lines of thought that prompted a discussion on “disaster capitalism” (Klein, 2007). The obligation to incorporate is both discrete and problematic. When providing aid, FEMA would seemingly be within its rights to ask for what it would call “basic” paperwork. However, that obligation becomes highly problematic as it places additional requirements on people on the margins of mainstream society. Some would argue, like Antonio Gramsci, that the system itself both knowingly and willfully places these restrictions on marginalized people because it either further forces them into isolation or compels assimilation (Corby and Leerssen, 1991). He and other scholars of the 20th century stated that this is why “alterity” (the state of being othered or different within a society) is also about invisibility and voicelessness (Jacobs, 2001). This is part of the foundations for how studies of colonialism have been discussed (Lamana, 2005). One significant problem in the study of colonialism is that as colonial governance encountered different ways of governing and different ways of preserving knowledge, it would confer legitimacy to systems that “mimicked” its own process to validate its own authority (Ladwig and Roque, 2018). In doing so, it further pushed any authentic engagement with communities and their ways of knowing and living deeper into a state of invisibility.

As time goes on, people who were already on the margins in relation to a dominant system are subject to repeated forms of alterity, to the point where they may seem entirely erased from the system. However, it is more accurate to say that their way of life is underneath layers of social requirements that, over time, were a convenient way for a system to avoid further encounters with ways of being that are inconsistent with its own values. At any point when the dominant system must revisit those marginalized ways of being, the encounter may prove to be existential. For a way of life left behind or placed under layers of change may often appear as a different world altogether. This is why some scholars have insisted on seeing encounters within different social systems as part of a “pluriverse” or a system of worlds whose “worldmaking processes” are so different that they call for a complex set of arrangements and relations to be seen cosmologically and encountered at the level of a “world” (Escobar, 2020; Querejazu, 2022). It’s no coincidence that this scholarship is largely coming from

communities within the Global South and among indigenous scholars who are navigating discourses on colonialism while also making connections with other fields of study that are more “disciplined” or centralized by a specific worldview or orthodoxy. As ecological crises continue, it will become increasingly important to hear voices of people whose bodies of knowledge are of and from these marginalized systems, and those encounters will be successful only to the degree that these bodies are acknowledged as salient and valuable to any discourse at hand. In a sense, the “obligation to incorporate” is one of the many “worldmaking” instruments that organizations need to preserve its importance, legitimacy, and even to a higher degree its ability to be sovereign. Which returns us to the concept of the obligation to incorporate and the case of Mora. The “village” of Mora escapes the obligation to incorporate due to a set of unique circumstances several of which are detailed in what follows.

The Federal Government was culpable

Due to the culpability of the federal government, FEMA cannot “obligate” incorporation in the manner described without also violating several additional ethical principles of governance. From a “Do No Harm Perspective” it is now subject to a deeper level of internal scrutiny and further subject to its own principles than it would be if it did not stand as the “responsible party”. In this sense, the word “compensation” becomes a more powerful term than the more conventional term “aid”. The degree to which responsibility was claimed and to which resources were made available illustrates how the administrative ethics of the state were aware of its own sense of wrongdoing. Under these conditions, the authority to both look for and identify violations of policy or to render someone as unqualified for assistance moves in favor of the aggrieved party.

Mora as unincorporated or “formal differently”

First, it is not officially a “village”, and the many communities that were affected by the HPCC were also not “villages” or any other form of incorporated municipality. Mora stands as the only unincorporated county seat in the continental United States. This means that the seat of local governance for the state is not formalized into the conventional governance structure that most of the country organizes under. This has several implications, including how voting, taxation, public works, and basic resources are organized. This is not to say that Mora is ungoverned, but its closest form of local governance is Mora County, which spans 1,926.2 square miles, larger than the State of Rhode Island and roughly the size of the Northern Mariana Islands. Without such elements of incorporation, the likelihood of

institutions to formalize differently increases as it refers to other systems of governance for community and legitimacy. This has proven an additional struggle for FEMA, whose charge to allocate compensation has encountered more “formal differently” than usual. To illustrate this, the HPCC burn zone destroyed the Village of Pendaries, a mountain community and resort near Mora. Pendaries is both a community and an incorporated business, which means that it maintains records of income, loss, and damages, in a manner consistent with the bureaucratic expectations of FEMA, and as a result has seen claims processed more easily and with greater frequency than community members in Mora. The administrative distance between Pendaries and FEMA is much smaller than that between Mora and FEMA, largely because of Mora’s state of “un”-incorporation. This state of un-incorporation may be illustrated by a couple of key historical points. First, the establishment of the Mora land-grant dates back to 1785, when then Mexican territorial governor Juan Bautista de Anza brokered a treaty with the Kotsoteka, Yamparika, and Jupe Comanches, the first established between the Spanish Empire with Plains Indians, one that resulted in a buffer zone between Comanche and Pueblo Indians who had argued over territorial dominance for several hundred years (Gwynne, 2010). The treaty brokered between the Spanish empire and Comanche is the only treaty is the only one held between Europe and an Indigenous tribe during the duration of the treaty. The treaty brokered between the Spanish empire and Comanche is the only treaty is the only one held between Europe and an Indigenous tribe during the duration of the treaty. So there is an enduring respect for some formalities that are underneath the veneer of the his showed a set of circumstances that produced an enduring effect on the region, and explains part of the values that operate outside of what the US developed as its bureaucratic system during Westward Expansion. In fact, Mora was the site of a US Army Razing in 1847. In addition to the long-standing US Military Presence in Fort Union, Mora was often referred to as an “occupied territory” before and after the Mexican American War. The battle of Mora was such a heavy-handed loss (Howitzers were employed in the region) that the community remembered it as a definitive moment of colonial expansion (Twitchell, 1909; Goodrich, 1972). Last, the acequia systems within the Mora Valley are part of a transnational cultural and agricultural system, informed first by Spain and accruing Aztec water management influence as well as Pueblo influence. In fact, the word acequia is a Moorish word for “waterway” (Rivera, 1989). This influence over time has remained one of the most enduring cultural artifacts of Mora and has historically operated as an instrument of governance, finance, and artistic expression in addition to its direct agricultural values. These formalities have accrued over time and have shaped values that often removed themselves from the site of colonial and bureaucratic powers.

Left to its own accord, these systems have emerged in relation to and often in contrast to the system that FEMA and other governmental instruments view as civic obligation.

It is a multi-layered “pluriverse”

Several cultural, social, and political institutions predate the establishment of New Mexico as a state and the United States as a nation. Many of these institutions are holdovers from Spanish Colonial Rule in the region, but are also part of indigenous communities, including the Pueblo and Ute. For example, the local acequia systems are a confluence of both the Spanish Colonial (and by extension Moorish) agricultural systems and Indigenous agricultural systems and values. Some of the earliest insurance systems, for instance, were provided by acequia governance, many of which are still in operation (Rivera, 1998). The Land Grant communities themselves are an artifact of the Treaty of Guadalupe Hidalgo, and places like Mora which constituted some of the outermost places where conflict arose, persist as some of the most complicated jurisdictional spaces for United States agencies and courts (Garcia y Griego, 2008). Parties left on the margins remained incoherent to the dominant structure, in this case the Westward expansion of American institutions at the turn of the 19th century. The treaty of Guadalupe Hidalgo served as both a resolution to armed conflict but also contained avoidance mechanisms that “protected” the rights of people. This meant that institutional holdovers from the Mexican, Spanish Colonial, and the Indigenous systems that preceded them were attributed rights, but only to the extent that they didn’t directly contradict the jurisdictional power of the Federal Government. This has led to significant, gradual animosity between communities in rural New Mexico and Federal Agencies, especially in places where public lands are part of land disputes left unresolved (or too swiftly resolved) during the transition of New Mexico as a territory to statehood in 1912. Most of these issues are transmitted not in formal disputes, but rather in artifacts of historical memory. In the words of Gabriel Melendez (2017), the village of Mora is an “archive of voices” that tell a story of a people unwilling to be subjected to the erasure of its many histories, which he portrays as “elongated shadows that move in the old, abandoned patios and the unearthed bones that walk the earth and do not know eternal rest or peace.” As a mountain valley -- situated right at the frontier of where Pueblos would settle and nomadic groups would push back, where commercial pathways (first by horse and then by rail) would flourish, and where people would resist almost any totalizing force in favor of the mountains and variegated pockets of agricultural independence – Mora is a place of complex layering, and while unincorporated, it is a place where, in the eyes of the state, ways of life were more easy to avoid than assimilate. These memories and knowledges are more than historical musings. They connect directly to ways that people

view property and serve as a primary mode of reproduction for cultural values, which themselves serve as the foundation for land-based practices that regulate and allocate resources, how systems of care and sharing are valorized, and how an “economy” is shaped within those systems of value.

“Cascading events” change the time orientation of compensation

Erosion and other ecological events will continue to affect the region. The loss of the natural erosion barriers created by the forest land has had a significant effect on agricultural systems, and despite any significant human interventions these matters are now subject to natural cycles. For example, several acequias have been damaged by the flooding from the HPCC burn scar in the Rio de las Gallinas watershed. Those damages fall under the same federal disaster declaration for the HPCC disaster, DR 4652, and are considered “cascading events” by FEMA. While not uncommon, these long-term effects become an added dimension of a system that is used to define and controlling the terms of compensation. For example, in calculations of damages and losses, businesses within the affected region would normally be compensated in relation to trends and data within the business cycle. A company that is forced to rebuild itself because of damages done during a fire may have to, for example, hit a hard restart and could therefore claim damages and losses for the work needed to rebuild oneself as a startup, a period that would normally take between 3-5 years. However, the connection of many businesses to the natural environment changes this time-orientation, and any cascading events (such as continued floods and erosion) now place the determination of compensation into a much longer period of consideration. These determinations shift to factors determined by the natural environment or within the biosphere which extends the time-orientation into decades rather than years. The recognition of “cascading events” opens the door for land-based practices to be included. Interestingly, land-based practices encompass those that have an immediate market value and those with intangible values, such as cultural practices. Cultural connections are what may have made certain practices meaningful but not necessarily important to competing commercial endeavors that evolved over time. Hence, as cascading events are identified in compensation claims, the generational valorization of those cultural land-based practices will eventually become traditions, and those traditions will become important to one’s personal identity. The loss of these cultural practices, while difficult to identify, almost immediately reveals a different time-orientation, with periods much larger in scale than those within a business cycle.

Subsistence opens a door to informality

Another unique aspect of this case is the Congressional Act and Federal Mandates that protected “subsistence” work as an “allowable damage”. House Resolution 6833-59, which defined the domain of “allowable damages” as “Loss of property”, “Business Loss”, and “Financial Loss” contained language common to most emergency declarations. But notably, subsection A(iv) identifies “a cost resulting from lost subsistence from hunting, fishing, firewood, gathering, timbering, grazing, or agricultural activities conducted on land,” and article A(vi) identifies “any other loss that the Administrator determines to be appropriate for inclusion as a loss...” These measures were included by the New Mexico congressional delegation to account for the variation in livelihoods within the region’s diverse political, economic, and historical landscape. Ready (2017) describes subsistence as a proxy for informal economic behavior, arguing that any behavior that doesn’t subscribe to a rationalized, monetizable market valuation will always receive additional scrutiny. The congressional act’s use of subsistence work, combined with the bureaucratic restraints placed on the federal government due to its culpability, is noteworthy, because while administrators could normally limit the use of such a term, its placement in the HPCC declaration has allowed for less formalized activities to be acknowledged.

While subsistence work does not equate with “informality”, the congressional decree that allowed subsistence to be counted as a legitimate part of the compensation process opened the door for complex livelihoods to be interpreted under a lens that would have not been possible through the conventional compensation process.

The problem

Taken in sum, Mora’s relative protection from the obligation to incorporate poses an interesting and rare set of conditions, particularly within the United States. While intangible value and non-market value have always been considerations within compensation and loss structures, the complexity of these factors is accelerated by the degree to which Mora is seen as informal, land-based, subsistence oriented, rural/frontier, and socially and culturally invested in values that predate the modern nation-state. It is a place that is not fully in any one world that it occupies, and its traditions feed off its state of pluriversality. There is one last factor that changes the importance of compensation in the region affected by the HPCC and the urgency with which it is being administered: authenticity. One could argue that what is at stake is not necessarily the loss of traditional values, but rather the unique way that Mora can at once participate in and contribute to any form of modern progress while simultaneously holding a deep and authentic footing in formalities that are illegible to the “outside”. The ability for Mora to withhold its memory (and in some cases the secrets that make it what it is) runs the risk of

being essentialized and flattened, particularly at a time when compensation runs the risk of changing the conditions whereby those practices may be authentically maintained. The HPCC wildfire didn't just burn down trees and homes; it also burnt away centuries-long relationships to the land, and more importantly, the discreet and subtle practices that made those connections "real" and meaningful. In a public meeting attended by the lead author of this paper, a community member said openly to the US Forest Service, "You aren't just burning our land, you're burning the only protection we have from all of you!" The importance of that statement reminds us that systems of compensation are not unidirectional. Compensation systems, like any other instrument, are about calibration. 4 billion dollars will not go anywhere near providing compensation to victims of the fire, but it can be understood within a framework that accounts for what can be compensated, what should be compensated, and how existing literature on non-market valuation can be organized to serve a practical, but mindful purpose.

Hence the question that proves enduring as we have conceptualized this problem remains:

How does economic value translate across and within a pluriversal economic system?

How do compensation systems assess damages and losses while avoiding the harm caused by the "obligation to incorporate"?

To address these questions, one must accept that systems of value are not totalizing and require a working understanding of why a pluriverse matters, especially in situations where communities lie at the intersection of worlds that over time have produced different economic realities. Part II of this project will attempt to address that question.

Part II

Partial Ontological Layering and Compensation

In Part I, we described how the case of Mora and the HPCC fires “unlocked” a doorway between the compensation system and a pluriversal economic framework and how the integrity of the “informal differently” systems that are part of Mora’s economy were insulated from the “obligation to incorporate”. Part II elaborates on how we conceptualize a “pluriversal economy” and will introduce a framework that can help one think about the broader set of losses and damages that may occur in situations where cataclysmic events expose the touchpoints of an economic pluriverse.

Economic heterodox, pluriverse, and nature

In 1965, Anthony Downs (1965) described a money economy as an integral part of modern bureaucracy. Like Weber and Simmel before him, Downs believed that money had the ability to serve as a surrogate for the exchange of values in social spheres, but not without limitations. They agreed that one thing suspended that capability – nature. Nature, according to Daily, et. al, is the most mismanaged and misunderstood part of an economy, not only because it “escapes human valuation” but also because it marginalizes systems that connect to those activities. Nature becomes the placeholder for what humans cannot easily understand or control. As economics developed as a modern field, to be closer to nature, in economic terms, is to work at the periphery of the market’s logic. The ancient adage “Render unto Caesar what is Caesar’s, and unto God what is God’s” has served as a through-logic within most of human civilization, secularizing and distinguishing between what humans can apply value to and what we cannot (Fourcade, 2011).

Recently, scholars have advanced the concept of “natural capital” to account for the intersection between human and non-human centered systems within an economy (Barbier, 2019). Climate Change and the increased acknowledgement of non-Western values are transforming how nature factors into economic thinking. Environmental crises have prompted scholars from several fields to explore how what is lost in communities corresponds with the degree to which those communities are connected to urban-centered, market-saturated notions of property and ownership. Rural areas reveal themselves to have a wealth of alternative knowledge about the value of nature but are mostly limited to calculating damages in relation to their more bureaucratized economic counterparts (Fu, 2016). Rural areas, or other places where nature has a prominent role in how human beings shape values, tend to avoid more straightforward market valuations (and monetary exchange) in favor of more nuanced exchanges (i.e.

barter and mutual-aid). Hibbard and Lurie (2013) suggest that this is a way for people to retain a reverence for nature as they negotiate interpersonal exchanges. In cases of compensation or loss (e.g. a wildfire or other natural disaster), these nuances are sometimes forced to interact with a money economy that does not easily comprehend such behavior and often requires conformity to the money-based system.

This has led some to call for a framing of economic “heterodox”. From an economic heterodox perspective, systems of value that manifest from diverse social and cultural spheres don’t always produce the same economic choices (Davis, 2008). The different relationships people have to nature, for example, produce vastly different social and cultural systems that, when reproduced, change how economic choices are made. Within Pueblo culture, for example, people are not the primary shapers of the world but nature itself is the entity that shapes and controls how we as humans are to live. We see varieties of values that shape what can be assigned value and what cannot in cultural spheres across the world. Maori culture, for example, will assume that animals are aware of how to make decisions about the environment and in some cases hold precedent in making decisions for society (McMullen; 2016; Kalenscher, et. al 2011). On the surface, this is a necessary and useful advancement in how we think about economics. The challenge is to avoid engaging in cultural essentialism to the point where only some people are viewed as caring about nature while others are not (Garnett, 2006). To avoid these monolithic views on culture, one must accept that even the most isolated cultures don’t operate in complete isolation. Hence, it has become necessary for economics to move beyond phrases like “parallel economy” to describe the presence of different economic systems, for such framings imply that different economies never intersect with each other. This is why parallel economies have so easily been seen as underground, illicit, and informal (Lindaur, 1989). None of those words accurately depicts the messy interactions among people who live and exchange across and between systems. The literature on parallel, informal, underground, and even illicit economies generally recognizes that an economic heterodoxy is at work but tends to imply a distance among systems that may not always hold true. Herein, we are working off the assumption that some communities, as is the case in Mora, have a relationship with many varieties of capital, and because of their historical circumstances, cannot exist within a parallel framework. Instead, we have chosen to characterize the placement of communities such as Mora within multiple competing economic realities as an actively “pluriversal” economic framework. While almost all economic activity contains ambiguity, some places reveal ambiguity more than others, what some scholars have referred to as “wicked spaces” where rational choices are not easily identified (Foster and Frijters, 2023). As described in Part I, Mora’s historical context, especially

the forces that have kept it “unincorporated”, situate it as a site of pluriversality with its own set of “wicked spaces”. As victims of the fire come forth to claim losses and damages, and as those stories reveal livelihoods which emanate from a variety of contexts, FEMA and its administrative processes will find it increasingly difficult to employ a linear process of compensation.

What makes a system pluriversal?

Pluriversality is another way of saying that people may live under circumstances where their social obligations, daily habits, and ways of being in the world differ across a plane of forces that shape how one sees the world as “real”. According to Escobar, one’s “real world” is a byproduct of the “worldmaking processes” that people undergo every day, and as such, different worlds have different terms and conditions whereby things may be seen as rational (Seth, 2023). While Arturo Escobar (2020) has been cited throughout this paper, it is worth noting the origins of “pluriversal” theory and its crucial role in challenging dominant paradigms of development and economic theory. In the early days of critical development studies, Escobar’s *Encountering Development* (1995) questioned the notion of “development” as the organizing concept surrounding one’s economic existence (especially in the third world) and emphasizes the power imbalances created by Western notions of progress and capitalist expansion, advocating instead for a more pluralistic view that recognizes diverse ways of being and organizing society. His emphasis on “decentering capitalism in definitions of the economy, of liberalism in the definition of society, and of state forms of power as the defining matrix of social organization” (xxix) in understanding the delineation between “postdevelopment” and “pluriversal” theory underscores the importance of embracing alternative frameworks that reflect the complex realities of local contexts. It is the practice of this “decentering” that allows for pluriversal theory as a critical and analytical tool, and this interconnectedness that allows us to understand New Mexico as it stands, rather than perpetually framing everyday social practices as backward or unsophisticated. Appendix 1 serves as an entry point to how we addressed this issue. Much of the theoretical work developed in this paper was the byproduct of lengthy discussions about what made Mora unique and how we could develop a more consistent way of looking at these works using a holistic approach. As part of those exercises, student assistants Cole Kochan and Augustus Guikema along with Constanza Mier y Teran Ruesga shared perspectives that helped shape the theoretical work at play. To acknowledge where that work emanated from, the following appendix synthesizes the thinking they contributed while explaining parts of the research that, for purposes of brevity, did not make it the main body of the report.

Compensation

Compensation can be generally defined as something, typically money, awarded to someone as a recompense for loss, injury, or suffering. When wrongdoing or culpability results in a call for compensation, institutions must both preserve their bureaucratic integrity while also “making whole” a victim or beneficiary of compensation. Mao and Villeval (2017) also suggest that compensation has a dimension of “saving face.” An institution must, in admitting fault, preserve its legitimacy, and this is sensitive to several contexts regarding dignity, social status, and moral expectations of recompense (Kahneman and Thaler, 1991). The motives represent some of the forces at work in the “obligation to incorporate” described in Part I. While the state is obligated to provide some form of compensation, it must reckon with whether to do so in its own language or the language of the aggrieved party. In a sense, this proves the paradox of compensation, because no party can truly be made whole when incommensurability is a significant factor. The more significant the incommensurability, the more unreasonable any compensation will be viewed. The study of “taboo tradeoffs” represents some of this logic. If a distracted driver were to injure or hit an unsuspecting person, were the driver to immediately pull out their checkbook to suggest a price for compensation, several moral and social violations would add insult to the injury at hand (McGraw and Tetlock, 2005). Part of the psychology of compensation is that any gesture, regardless of how substantial it is, risks giving people an artificial sense of closure whose superficiality may add further injury to the aggrieved party or parties (Gobin and Freyd, 2009). In the case of Mora, an immediate, short-term inflow of capital may decrease the attention paid to maintaining specific practices and traditions. Alternatively, it may also ignite traumas that have taken generations to address. Without mindful attention to the terms of compensation, these matters may intensify changes that communities have not yet had the opportunity to invest in.

Last, and certainly not least, the monetization implied in compensation contains an embedded privilege of a commoditization of debt, value, and obligation – one grounded in views of property rights that are not necessarily consistent with the realities in Mora. Once compensation takes place for something that has intangible value, for example the loss of a relationship to wild animals on a property that was destroyed by the fire, it publicizes a market value that may inadvertently ignore specific relations or deemphasize the value of related practices. Say, for example, you have a family who has lost the ability to perform a traditional hunt that has been done in your family for generations but has been compensated a sizable amount (let’s assume that it was calculated at the market rate for the lost time and similar labor in a hunter’s outfitting market). In that compensation one could get a value for lost stock or game value. That compensation may incentivize selling game at the market rate where that game may have been traditionally used as a gift for land sharing practices, or as a means of building trust

with neighbors to preserve a “commons” – even among private landowners. Once the market intervenes, it becomes harder over time to remember the value of shared land stewardship, to the point where it may be erased from communal memory. Once that occurs, land disputes and other community relations may have lost a form of conflict resolution and may lose a generations-defined system of exchange whose intention may not be accountable (or even economically feasible) through a direct monetary transaction. Bruno Latour (2012) once noted that “barter is sophisticated”, and while it is often designated as a relic of less advanced societies, it may in fact supersede the modern financial system in its ability to account for the complex, constantly evolving relationship within human life, human history, and the non-anthropocentric ecology that surrounds us. Part of money’s sophistication comes from its ability to resolve the “double coincidence of wants.” In a normal barter situation, people may be “inefficient” because exchanging parties may not have a non-monetary good that another person needs (Berentsen and Rocheteau, 2003). It’s possible that “informal economies” don’t merely represent a bilateral exchange, but one that keeps in mind a host of other stakeholders for whom an “inconvenient good” may serve as an important placeholder for a greater exchange, operating for example, at the level of land stewardship or community identity. The point is that people whose livelihoods depend on non-monetary exchanges are not only *not unsophisticated* but may be attending to something in the ecology more sophisticated than the monetary exchange dynamic accounts for.

The word “subsistence” returns to our conversation as a term that is both disparaged and celebrated. In preliminary conversations with compensation claimants, we encountered several people who refused to define their damages and losses as “subsistence” by saying they were “businesspeople... not looking for a handout.” The stigma of being associated with “subsistence” is another among a variety of touchpoints that compensation processes reveal. In some cases, this has disincentivized survivors of the fire to come forward. In the words of one claimant during a public info session: “I’ve done nothing wrong, and I won’t go to the government only to get punished or insulted.” As class and social tensions are activated in this process, the concern about how money will change the community, a community which on the outside has often been designated as poverty-stricken but internally is seen as rich. Compensation without strategic framing may run the risk of encouraging behavior such as conspicuous consumption that may disrupt the attention a community pays to issues of class and poverty (Ryu, 2015). In post-Apartheid South Africa, the practice of “izikhotane” or “ukukhothana”, a youth subculture where luxury goods are purchased and destroyed performatively to demonstrate “swag” or wealth serves as a complex reminder of the effects that monetary influxes have on places where trauma and social tension were dominated (Memela, 2018).

Once consumption vis-à-vis compensation occurs, it is subject to indirect incorporation. Take, for example, taxation. Once economic compensation is given, it becomes part of the information that shapes the market and may be subject to taxation (Pareja, 2009). In a sense, a double-taxation could occur, rendered first in one relational sphere and then in another. It is currently the understanding of this paper that compensation within the Mora HPCC context will not incur taxation, but the case of Hurricane Rita in Southeast Louisiana and other cases of disaster compensation reveal such considerations to be more complicated (Holtz-Eakin, 2005), including the long term effect of disaster on property taxes and depreciation, which in most cases only favors those with a high degree of experience accounting for taxes in relation to damages and losses. Any form of taxation is politically charged, and in most cases met with skepticism if not outright resistance. While this paper isn't arguing that Mora is immune from all tax responsibilities, it's worth mentioning that the monetization of traditional practices comes bundled with a "render unto Caesar what is Caesar's" dynamic that may reproduce more harm than good.

Conventionally, damages and losses are calculated using several methods, including income based, market based, and net asset-based approaches. However, given the informalities commonly associated with land stewardship within the region, it is very difficult to assess damages in this manner. In cases like those seeking compensation in the HPCC wildfire, finding commensurate values for damages and losses requires knowledge of local economic habits and practices within a larger historical context. There is a significant body of literature on intangible value across a variety of fields of study. Co-author Constanza Mier y Teran Ruesga spent significant time compiling this work into a review of intangible loss valuation, which serves as a cornerstone of this paper. While used herein, and for purposes of brevity, Appendix 2 contains the entire review, which serves as a key reference to the hypothetical case/illustration that follows.

Compensation, regardless of its nature, is a negotiation and a translation at the same time. It is designed to resolve an explicit claim or grievance – or at least to assuage the call for action on the part of the culpable party. One useful way of thinking about compensation then is to apply a basic element of translation theory. According to translation theory, any form of translation Translating from one system to another involves a variety of processes that either foreignize or domesticate one's practices to another. Two things can universally be determined when anything is translated: it will contain *foreignizing* and *domesticating* parts. For example, if a poem were to be translated from language to another, it would invariably run into a point where the object of the translation (dependent on the

translator) must either foreignize by changing the meaning or rhythm of the poem at the sacrifice of the formality or to domesticate it by keeping the formal elements and sacrifice the meaning of a thing. While simplistic, this explains some of the behavior seen in the HPCC compensation process. As translators, FEMA is charged with providing monetary compensation for losses that it deems through its process as warranting compensation. Those decisions foreignizing losses within the community that are difficult to translate into the compensation process. This brings to question what the rules of evidence are in these cases. Should a loss intend to retain the “foreign” aspects of a compensation, it would ultimately be at the expense of the government’s ability to tax or “incorporate” what is represented by those losses. In other instances, it will domesticate some of those losses by ascribing normalized taxation and market valuation process. The degree to which something is foreignized or domesticated will determine the impact of compensation on the health and resilience of Mora as a community. Foreignizing or domesticating do not have to be normative terms. This would be dependent upon the degree to which one is willing to “bridge a distance without closing it”, a term used often in international business to describe how markets may remain distinct but connected enough to coexist with each other (Ghemawat, 2007).

Under normal circumstances, compensation will negotiate what meets both a legal and possibly an ethical standard to “make right.” But it may rarely meet the higher standard of “making whole.” The degree to which people are aware of this and are willing to engage at the level of “making right” instead of “making whole” may be enough to prevent further hemorrhaging, but it may not be enough to heal a wound. When viewed through a pluriversal system, compensatory issues are intensified, for any process that rationalizes a way of life in one direction may risk foreclosing on livelihoods in another. For those due compensation in Mora, being compensated by FEMA may be detrimental to life on another plane of cultural and moral existence. When one recognizes that compensation operates on multiple planes of reality at once it becomes easier to realize that not every individual is made whole by monetary compensation, but also by moral and social engagements that themselves gain value over time. This allows us to repeat the question at hand with greater context:

How does one adequately compensate people and communities within a pluriversal economic system?

Partial Ontological Layering

Clearly, institutions, both scientific and administrative, must maintain the standards necessary to perform the work and to achieve what it has been able to accomplish as an emergency and disaster relief organization. All things being the same, those efforts are valuable and support communities to a very high degree, and it is disingenuous to assume that people don't want or need processes made possible through what we call the modern economic system. We are not making the case for an elimination of money or paperwork and by extension to ignore the epistemological relevance of the state as an actor within the crisis. Instead, we attempt to conceptualize a system where these intersections can be understood more easily so that compensation may reasonably consider a broader set of possibilities for making people whole. To achieve that, we must accept that compensating survivors of the HPCC fires is about the nature of reality or what conditions are real for the subject in question. Hence, the case of Mora is not an epistemological problem as much as it is an ontological problem.

Issues such as climate change and biodiversity have called for updated forms of scientific inquiry, those that more directly acknowledge the lives of everyone affected by these massive changes on the planet (Ludwig, 2021). This means that assumptions about how science interacts with society are prone to encountering messy or "wicked" spaces. Montoya, et. al (forthcoming) suggests that the further scientific knowledge is mobilized during such crises, the more likely it will be that it will encounter people and their livelihoods that are illegible, which activates the desire for dominant institutions to homogenize. Again, this more "pluriversal" approach has been called for as climate change, the discourse of biodiversity, and the acknowledgement of indigenous systems of knowledge are converging to account for gaps in the connection between science, policy, and community (O'Brien, et. al, 2013; Latulippe and Klenk, 2020).

One pathway towards this pluriversal approach lies in the concept of "partial ontological layering" or "ontological overlapping" (Franco, et. al, 2022). Partial Ontological Layering gained popularity in the philosophy of science in response to the practice of computer modeling. As algorithms attempted to place different taxonomies to explain a variety of social processes, a disjuncture appeared when social systems assumed to have a linear outcome did not. A theory of "different and layered realities" was introduced to conceptualize different and layered ways of describing social life and the realities that circumscribe such behavior (Poli, 2002). Within a few years, the concept of partial layering gained ground to produce methodologies of "consequent processualism" which argues that before institutions form (between actions and reactions), social formation is produced in webbed flows instead of a

unidirectional, homogenizing process (Glaeser, 2005) – a process now being conceived in evolutionary economics (Robert, et. al, 2017).

We have adapted this partial ontological layering into a conceptual map to illustrate the complexities of the compensation system at work within the HPCC/Mora context. This mapping will take place in four layers of “being”, namely *person*, *practice*, *place*, and *people* (Table 1). To conceptualize the “layering” fully, we chose to think about the layers as being a cross section of a system (like a cell being sliced). Montoya, et. al describe these systems as “incoherent systems,” much like a jellyfish or a complex cell whose moving parts organize beyond linear connections. Were we to take the “jellyfish” and slice it into layers, each slice has touchpoints within it of the different systems depending on the specific arrangement of cultural, political, and social forces at work. The emphasis must be that layers of reality intersect in a variety of ways that are non-hierarchical. Like cells, they have membranes that gel different systems together; hence, they are messy. Much like a layered map of the human anatomy, where systems can be placed on top of each other or isolated from one another, the “slices of a jellyfish” illustrate how to conceive this pluriversal system both as a process and as an ontology. Diagrams 1 and 2 describe how these ontological compositions can be conceived. Diagram 1 attempts to show how a mix of relationships can result in homogenizing effects (what we can call “worldmaking effects”) that produce different realities based on the way those elements compose a pathway to live under different “worlds” or realities.

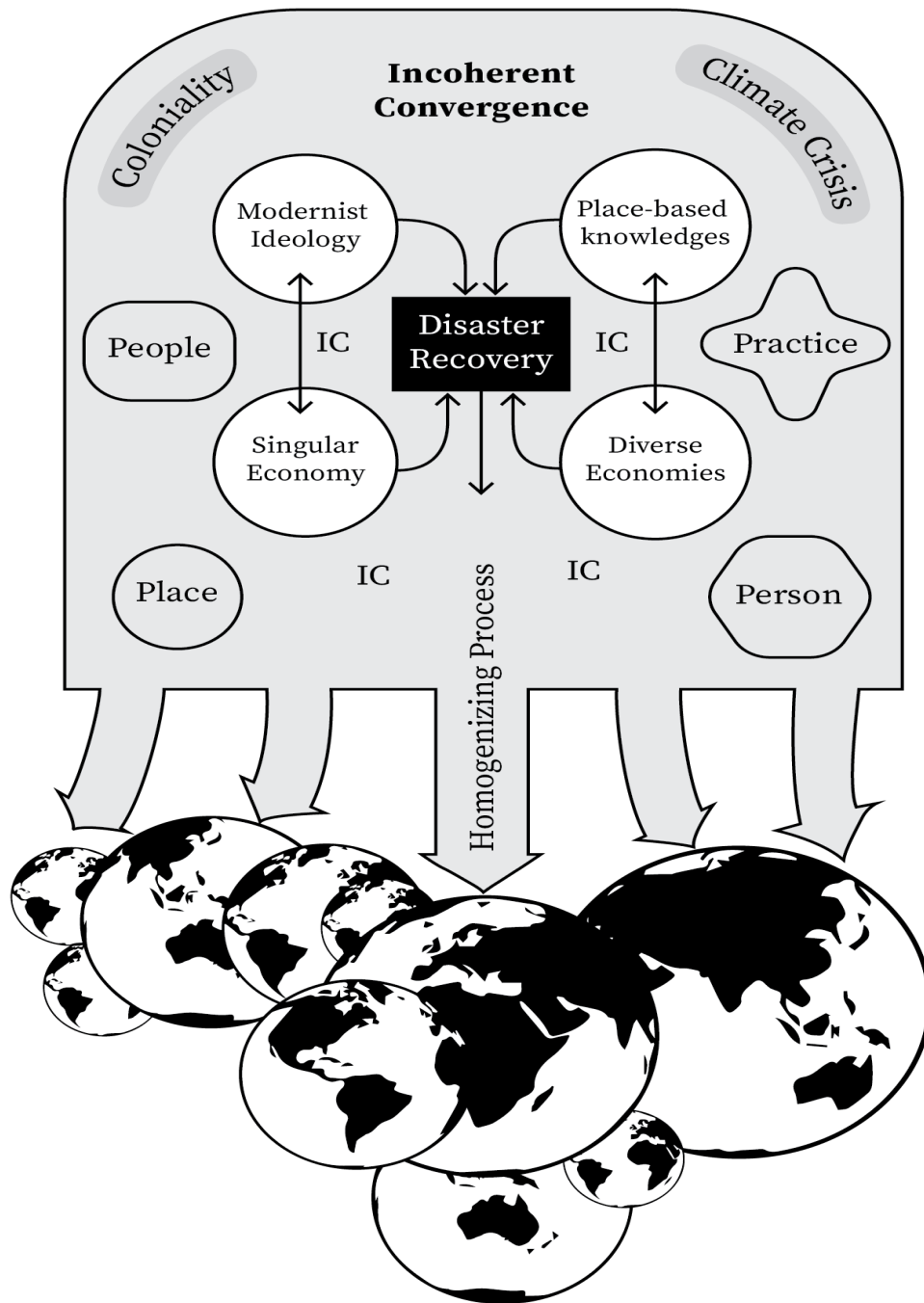


Diagram 1

Diagram 2 then shows that if one “sliced” that pluriversal into layers, one can see how different relationships (such as person, place, practice, or people) appear differently across different

homogenizing effects. In a sense, one group of people (within a slice of a mix of relations) will eventually emphasize place more than others, while individual property (or the domain of persons) may be more prevalent in another slice. These different types of compositions help us illustrate how people and communities end up “being different” across the expanse of relational possibilities. The slices occur when a specific set of processes starts to reveal separations as that process takes place. In our current discussion, compensation is the force that reveals these slices, and how one is compensated has direct effects on which “world” is supported in becoming a reality for any person undergoing that process.

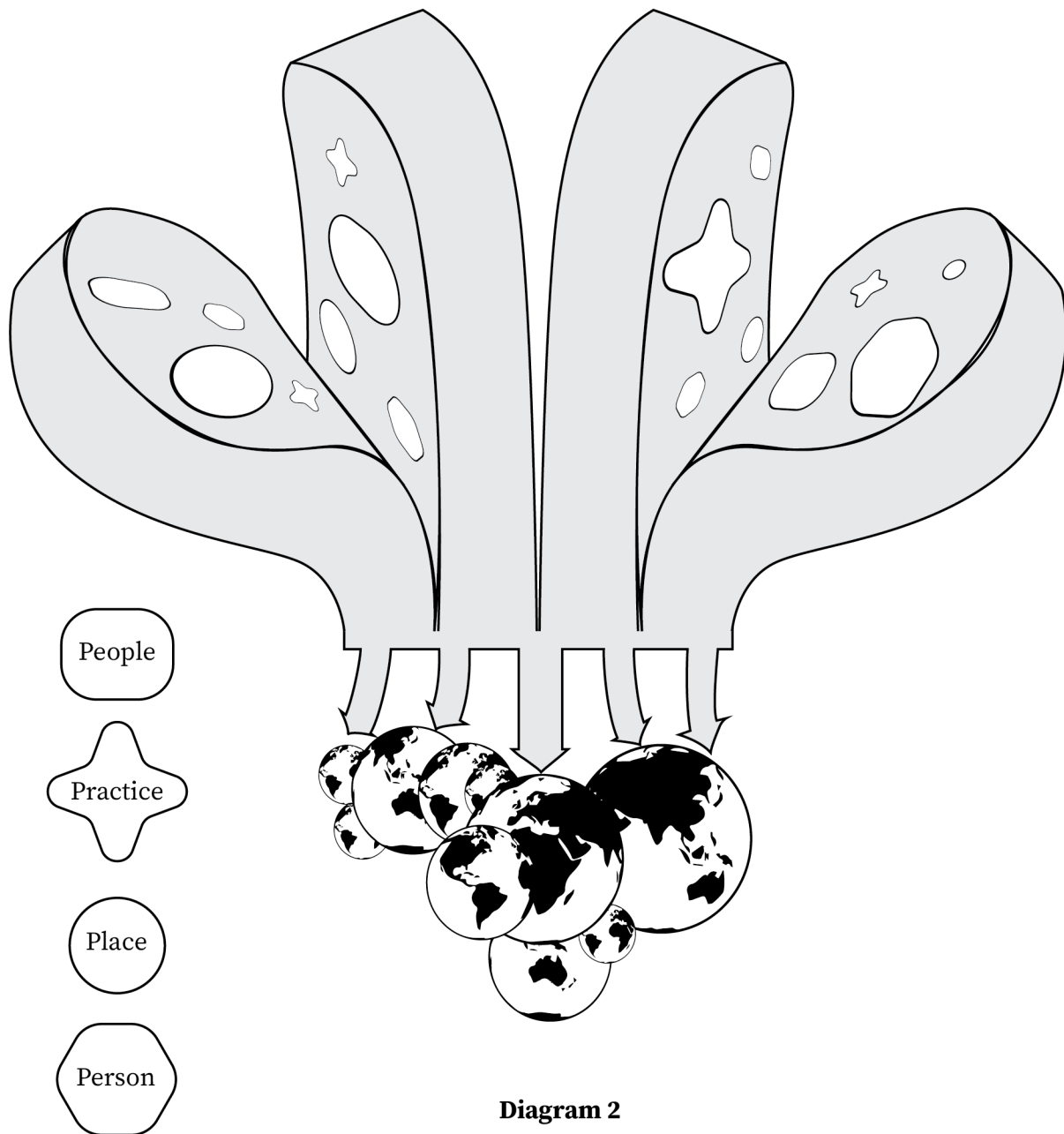


Diagram 2

Note that each shape in Diagram 2 appears in different degrees of magnitude. These parts as they connect to each other represent a kind of layering that we can apply to a pluriversal model. Table 1 represents a set of categories we propose can help elucidate these conditions as the “slices” of these complex relational structures.

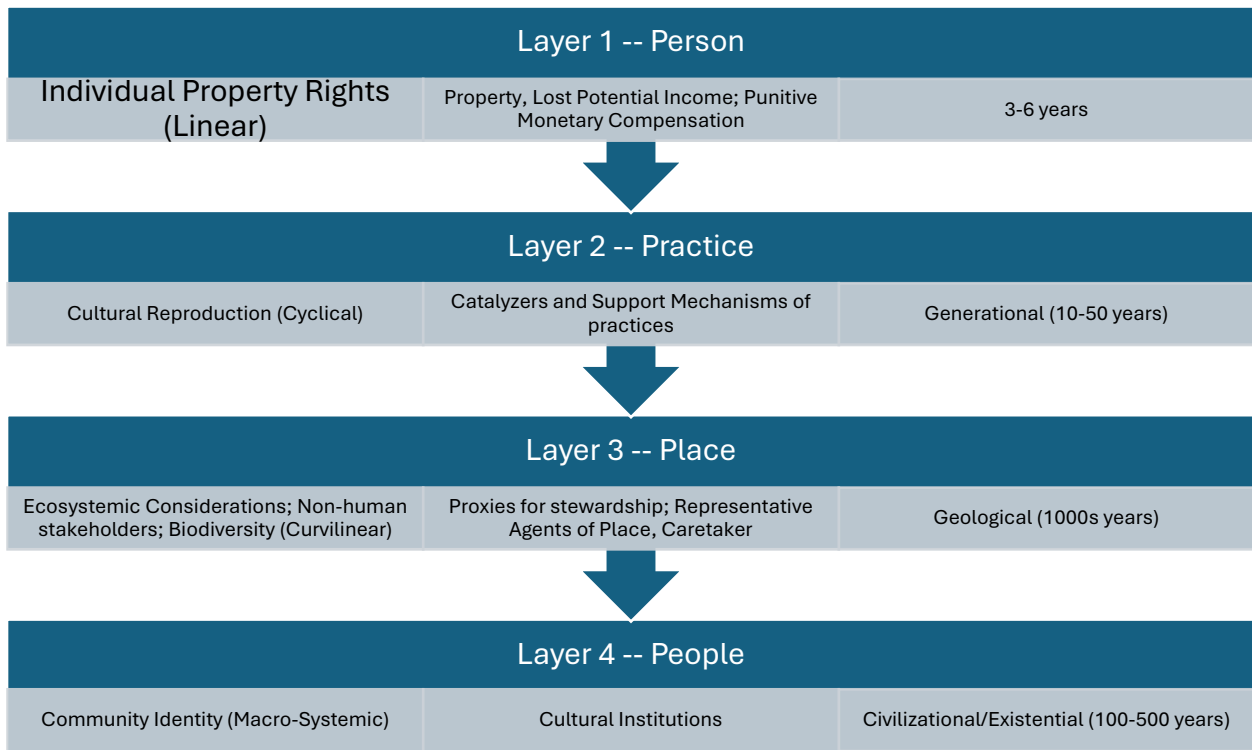


Table 1 – Four Ontological Layers of Compensation

Layer 1 – Person

“Person” refers to the layer where individual property rights are the dominant reality. In most cases, individual property, lost potential income and any other forms of damages or losses are directed at or for the individual. These forms of compensation are normally initiated and provided for through personal bank accounts and are in reference to personal items that may be claimed, such as homes. Intangible losses are normally attributed to one’s personal relationship or role within a larger set of processes. For example, claimants within class action lawsuits normally receive a share of a larger allocation or budget. In the case of the Mora fires, individual claims are currently being allocated as a share of the \$3 Billion congressional declaration to be administered by FEMA.

Layer 2 – Practice

“Practice” refers to the layer where a practice itself is the central, salient entity to be compensated. While a person may be the practitioner within a specific practice, the practice itself serves as its own entity. For example, should a dancer lose their ability to dance within a small community of dancers, it is not only the dancer and other dancers (each having a legitimate personal claim) but that specific dance practice that may also have a stake that is qualified for compensation. In this logic, to continue to do something that is of value in the world, one must also acknowledge that cultural reproduction is necessary for that work to continue and thrive. Were something to make that practice difficult or impossible to reproduce, the practice itself would require conditions be replaced to be made whole.

Layer 3 – Place

“Place” not only refers to the physical environment that surrounds all activity but refers to the special relationship that living creatures have with their lived environment (Hague, 2007). Rather than review the lengthy literature on place, space, and identity that spans a broad range of fields (cultural geography, community planning and architecture, and environmental ethics, to name a few), it suffices for our purposes to consider place a concept that itself contains its own distinctive qualities (is seen as an entity), contains rights, and moves beyond an anthropocentric perspective. In the field of biodiversity, “rights of nature” has expanded into a concept that proposes that nature itself contains the right to be compensated, and such renderings have a much longer time orientation (1000s of years), making compensation curvilinear (Borràs, 2016). An example of this is the “bending the curve” diagram, which shows the impact of applying resources to the protection of a biodiverse earthscape.

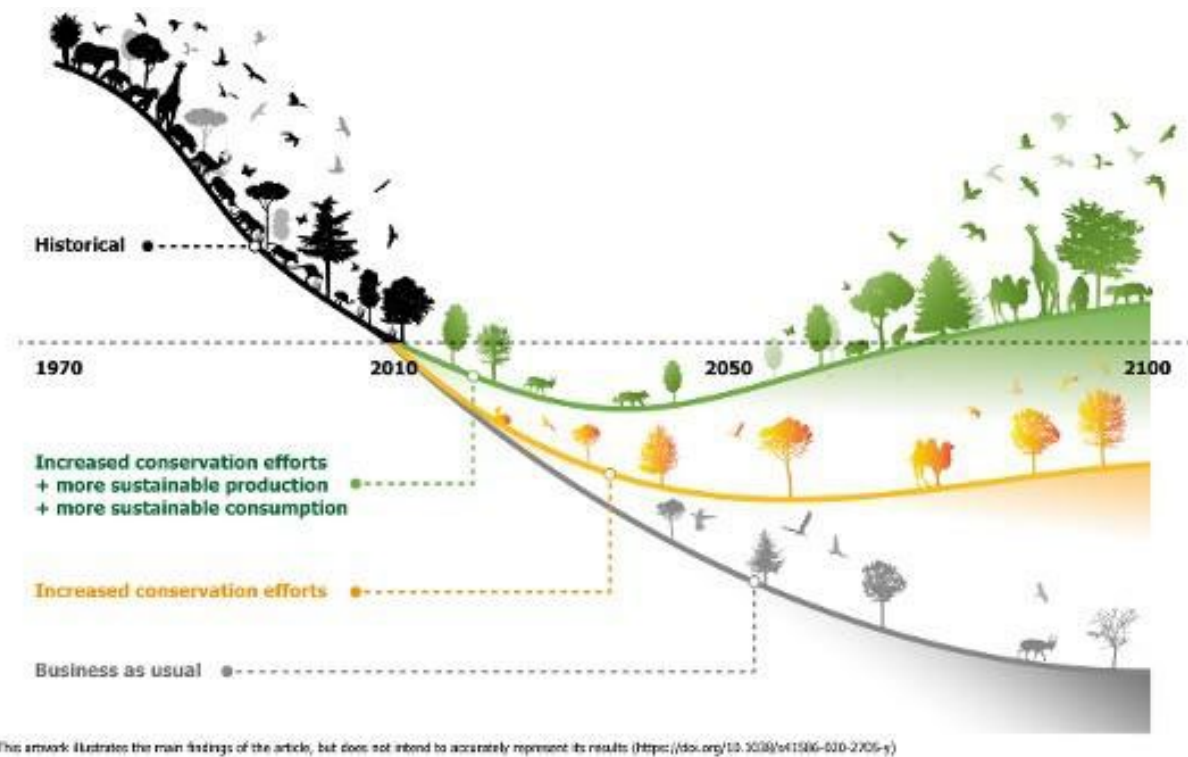


Figure 2 – Bending the Curve of Biodiversity Loss Diagram

Under this layer, losses and damages are considered from a biodiverse system, and compensation is focused on conservation efforts and non-anthropocentric relations (how we care for and relate to animals and other non-human life) that sustain the place as a special place of belonging for both living and non-living things.

Layer 4 – People

“People” refers to what happens when practices become traditions, when persons become members of a community, and when spaces become places to form a collective. The process of what Benedict Anderson (1991) calls an “imagined community” is “a broad horizontal kinship” that produces the sense of importance that people place on collective belonging. A people is more than the sum of its parts, and in most cases refers to a symbolic structure that is meant to represent the intangibility of what makes and sustains such belonging. From a compensation point of view, people are an aggregate system (macro-systemic) and are accounted for not merely as a sum but also as the thing greater than the sum of its parts, which takes on its own distinctive traits. While fed by its constitutive elements, it also reacts singularly. In a sense, all macroeconomic activity operates off a theory of aggregates, which since the time of Leibniz has attempted to account for those singular qualities of the whole. As stated previously,

it is the transition between micro and macro measurements that changes what information can be translated into an economic outcome (e.g. compensation). To compensate people is to compensate an assemblage or a macrosystem, influenced by a particular case, but also directly attending to the “more than the sum of its parts” process that sustains people. In the case of human rights violations (see Appendix 2) questions of how one is compensated for disruptions or the destruction of a collective memory, or aspects of “dignity taking.” In such cases, wrongdoing happens to an entire people, and the losses incurred are also about one’s control of the narrative that defines who people are and what their future is going to be. To lose control of that narrative isn’t simply a matter of personal compensation, and nor is it just about practices and place; it is also about the assembly of those parts that makes a person belong to something (Atuahene, 2016).

Each of these layers helps to represent a small part of the ontological complexity that occurs within pluriversal economic dynamics. At some point, a claimant will encounter these considerations as partially layered, meaning no one individual in their position within the complex system is perfectly or uniformly placed within a compensation structure. We have constructed a hypothetical case to illustrate how this ontological layering could be conceived within an individual claim. We used a fictional case of a curandera. In this instance, we reference Doña Gabrielita, a reference to a revered member of the Mora community who served as a community healer and curandera throughout her long and distinguished life. The facts in the case are entirely fictional to conform to the events that took place during the Wildfire. The narrative sequence replicates how some general details of the case may be described, either in claims, discussions, or expert reports.

The Case of the Curandera

Doña Gabrielita is a resident of Cañoncito, which lies on the border of Mora and San Miguel counties. Her ancestral home was destroyed in the early days of the wildfire (April 25th) due to a high wind event that exacerbated the crown of the fire until it settled into the isolated region where her home was located. As a result of the fire, her apothecary was destroyed, which contained roots and herbs collected over a 70-year career. At the time of the fire, Doña Gabrielita was 85 years old. She has currently been displaced and is living with family members outside of Las Vegas, New Mexico. Doña Gabrielita is a traditional healer known as a “curandera” who has over the past 70 years served the village of Cañoncito and the area that encompasses Mora, providing curanderisma and supporting families during times of sickness and promoting health through her practice. Two thousand acres of land that belongs to families in the general area was destroyed. It is estimated that this patch of land has

been cultivated for nearly 800 years, first by Ute and Picuris and later by Spanish Colonial settlers for development of herbs and organic remedies such as *Osha*, *Immortal*, *Cota*, *Mastranzo*, *Manzanilla*, *Poleo*, and *Hierba Buena*. These remedies come from heritage plants, bushes, and root structures that were burned completely in the fire. There is no evidence that these heritage organisms within the radius of Doña Gabrielita's home survived. Since her birth in 1937, she was raised in a family of curanderismo, an apprentice to a thirteen-generation line of curanderas. Part of that practice included midwifery and birth support, including guiding thousands of mothers toward successful childbirth. Parts of her practices were related to the Catholic Church and iconography, including veneration of Santa Rita (patron Saint of impossible situations, including those related to fertility and childbirth) in addition to references to "La Mama" or "Nimama", often referred to in her home as the "birth mother". She is known for having delivered her own baby twins using the techniques she was taught by her forebears. In addition to the apothecary supply, all documentation of assisted births, recipes and medicinal references, written both technically and colloquially as "consejos" (notes of advice and religious devotion), were lost in the fire. This includes artwork and iconography that accrued during her time as a curandera, including handcrafts and other items given to her as gifts of thanks or in trade for services. These texts were handwritten notes placed in a sequence of journals and files collected from her life's work and at least three generations of notes.

The conventional damage/loss valuation process

Compensation would normally take place in two basic formats: direct claims through FEMA, or litigation. In either case, Doña Gabrielita would normally have to submit paperwork verifying lost labor income and an inventory of any lost real property. Once total income and material losses are determined, the period of compensation would be determined and compensation, which normally utilizes a net present value calculation and a rationale for the time interval and discount of present value. Once a number is established, compensation would be rendered to Doña Gabrielita or her estate personally, likely with an agreement that indicates that no further action may be taken without due cause for personal compensation. FEMA has adapted a compensation structure which must administer an interpretation of the congressional act, including work that is deemed "subsistence". As a result, a more general system has been established with varying levels of administrative service, including community organizers, support personnel (referred to as "navigators"), and upper-level evaluators of claims. In cases of litigation, attorneys normally employ economic experts in conjunction with other experts (environmental engineers, arborists, and insurance companies) to provide an estimate of

damages and losses. In cases of intangible losses that FEMA cannot or will not administer directly, litigation is often the mechanism that produces and establishes interpretations of non-market value. Some advocacy procedures are in place for intangible valuation within the administrative process but are normally not rendered without significant appeal within the more basic process. Using a partial ontological map, what follows is a set of considerations that the conventional damage/loss valuation process may not account for.

Person

At this level, Doña Gabrielita would be entitled to damages for real property as well as for damages related to her lost labor. Let's assume that damages assessed to her property, including the herbs, documents, and other items were valued at \$350,000. This would be assessed using conventional market value approaches. Let's further assume that her practice was not legitimized as lost income, which, due to her age and the "informality" of her work, received no attention in the compensation process. As "subsistence" level work, one could assess that work in comparison to the market value for midwife salaries and/or perhaps as a proprietor of an apothecary or alternative medicine practitioner. Those losses would then be subjected to a time value consideration, for example a net present value calculation. For example, she may have lost 10 years of work largely due to the loss of access to her materials which were derived from the plant system, which may not grow back in a way that allows for her work to continue. In any case, the conventional process and/or the litigation process will culminate in personal compensation without any additional prompting.

Practice

In this case it is not just Doña Gabrielita that would be due compensation, but the *practice of curanderismo* that has incurred damages. To account for this, one may then add additional damages and losses, not directly to Doña Gabrielita, but to any catalyzers or support mechanisms for such practice. In days past, this may have taken the form of providing the resources necessary for apprentices. For curanderismo to continue, it requires sites where those practices can be reproduced. This includes access to the space or spaces where a curandera's work is conducted. That type of compensation would have to account for the cyclical nature of reproducing those practices. How then do you build a system of resources that would allow Doña Gabrielita to pass on her tradition to someone in an authentic way? Luna Community College and UNM both have curanderismo courses that could be enlisted to support an apprentice system, and regular, cyclical funding for that work may be a consideration in this

context. This does not preclude Doña Gabrielita from being supported directly for this; however, in lieu of her ability to perform her work (which includes being a curandera but also teaching and recording her work), whatever supporting mechanism being enlisted could provide such support. In some cases, it may be appropriate to provide compensation to a legitimate part of the community capable of supporting or replacing those practices so that the practice itself is adequately compensated. The sensitive issue in this case is what would serve as reasonable compensation for an *authentic* practice. Performing her work in a sterilized or displaced environment or supporting an organization that does not have a deep connection with the community may not satisfy the specific set of conditions that make curanderismo meaningful. In this case, one would have to develop criteria that would capture the authentic practice vs. a replacement practice, which, if not distinguished, may exacerbate the damage/loss in question.

Place

Like practice, the subject of compensation is not just Doña Gabrielita, it is the place or places that established an ecological relationship with the curandera. From this perspective, the mountain, the relationship to the animals (if not accounted for in a practice) and the propagation of plant and inorganic material that shapes the ecosystem has a value that may not fully be accountable for by contingent valuation, which posits a set of criteria in order for a landscape to manifest as a “place”. For example, the designation of cultural heritage sites establishes both the natural and architectural landscape as having value that is validated by a wider audience. The task that is most at work in this process is the triangulation of relationships to land or place. In Doña Gabrielita’s case, her reputation and the reputation of her craft over generations would be the starting point for building out a narrative about the place that may be qualified for compensation. In some cases, that compensation may not be direct monetary compensation to the individual, but specific budgetary, financial, or service requirements to the place itself to ensure that the culpable party is “making right”. An example of this would be the provision of a dedicated service worker paid for by the US Forest Service (or related agencies like the Bureau of Land Management) to be placed in the service of the community for reclamation and remediation efforts (Roschk and Gelbrick, 2014). While this is often done as a reaction to community issues (as was the case in the Exxon Valdez case by Exxon-Mobil) the degree to which that position is attending directly for land reclamation and not necessarily to a community who had a relationship with the land is key. For this to work, the gesture from the culpable party must hold to account a reasonable degree of stakeholder legitimacy for it to “make right”. This would require Doña Gabrielita’s input on

how to make the land whole be placed into the set of criteria whereby in-kind or service-related compensation may take place. This type of commitment may extend generationally, which may have to be part of the calculations that the culpable party must consider (i.e. in this case, federal agencies may have to abide by a provision of service for several generations with an intent for that support to come from the community as much as possible).

People

At this level, Doña Gabrielita is not merely a person to be compensated for a lost home; she is also a member of a group of people whose ability to shape history, to connect a practice to a cultural identity, and whose collective memory is disrupted or compromised. Compensation, for example in the case of Japanese occupation of Korea, specifically the exploitation of women (known as “comfort women”), did not merely require monetary compensation to families. In the end, it also developed into a formal institutional apology, both from the Japanese state and from private entities who benefitted from that exploitation. Ultimately, compensation in this context manifests as reparations, a process which must attend to larger matters, such as the provision of funding for art, literature, education, and design so the community may shape the narrative and its collective memory. Doña Gabrielita was not a wealthy person, but she is a benefactor of the shaping of the collective memory. While in a more property-oriented system there would be someone to establish a school or create a monument, those monuments may be more discreet and may operate differently in a place like Mora. Those choices -- how a place represents itself, how it chooses to symbolize what it is and what it is becoming – are subject to high degrees of intangible value. In cases such as these, long-term investments in the community through private investment may be a possibility. Rather than producing government programming, a solution may be to directly support private individuals or organizations who are capable of promoting part of an ecosystem that may be difficult to achieve with government programming. While this may run contrary to government accountability issues on one side, it may support community interests in other spheres of influence. Governments have normally done this to address issues such as illicit trade or to assert influence in foreign economies, but it is possible to view the same “foreignness” in this part of a pluriversal economy (Laopodis, 2001). The establishment of a *resolana*, a place of discussion designed to connect people with its practices, may be warranted. Normally, however, important steps are missed, particularly in the planning and design of such conduits for symbolic representation and growth. The investment, if done authentically, would have to ask: how would a future generation of Doña Gabrielitas imagine their space to be, and in a world where those

resources could be developed by and for the people of Mora, and can the government trust that its investment is addressing a problem without asserting a requirement to directly regulate such an investment? Going back to the comfort women case in Korea, reparations have not only included direct monetary compensation, but also a dedicated fund to develop art (often privately managed) that preserves the story of Korea's Comfort Women and the right of Korea to shape that narrative in an authentic way (Ishikane, 2006). Design and planning require the development of ethical procedures to ensure that those discussions can manifest without uneven or undue political control. The role that curanderas play in Mora's social and cultural imaginary can easily be overtaken by political interests who could use this as an opportunity to shape Mora in an entirely different way. This is why the setup for long-term planning must be aware of the specific context wherein people's voices shape and maintain the greater concept of what it means to be Moreno.

As a layered problem

The problem of compensating Doña Gabrielita takes on several forms. One could argue that she deserves compensation for the damages that she endured as: 1) an individual (personal property, lost income, health damages, etc.); 2) a practitioner/teacher of a craft she is no longer going to be able to practice; 3) a member of a class of people that suffered a collective loss; and 4) a person with personal, professional, cultural and emotional links to the land/ecosystem that got damaged. Additionally, the local/state government could potentially claim to be compensated for the damage to the land. These resources could be used for the recovery and conservation of the ecosystem in publicly owned land. While analyzing the impacts on all layers both separately and holistically, the subjects of compensation - Doña Gabrielita and the state/local government- would still have the legal personality and ownership of property rights required for the compensation scheme to work in practice. But as indicated, the local governance structure is composed in a way that doesn't imprint the same legal personality as the economic orthodoxy is used to.

The degree to which this can work depends on some degree of burden of proof to legitimize the claims. To understand this further, we can return to the translational properties that inhere in compensation. As Doña Gabrielita is compensated, the starting point may begin by recognizing the shared ontological space that she occupies. As a US citizen and a beneficiary of federal compensation, the monetary transactions that take hold are a domesticating compensation (from the perspective of the US Government) and incorporate the claimant to the degree that such compensation now operates within a market-valuation context. As a member of a community with relatively distant values to the

dominant (and translating) economy, it can also produce a foreignizing effect by compensating indirectly, to preserve the meaning of the claimant’s context. For example, beyond the direct support that any legal beneficiaries contain, a trust may be constructed that effectively operates over time as a conduit between the formal and informal systems. This trust can evolve over time to avoid essentialization, but it could also manage in whatever manner it needs to a means for attending to disaster recovery that isn’t dominated by direct monetary compensation. This is merely an initial suggestion, but the point is that some entity must exist that can retain the “meaning” of the translation and remain “foreign” as it was before the wildfire, or the compensatory process began in the first place. While Doña Gabrielita and a governance body, Mora County may serve as direct legal beneficiaries for compensation¹ a trust or agent of a trust may be established to attend to those places where compensation is complicated by the presence of several ontological layers at once. Table 2 attempts to visualize what these steps could look like:

Claimant	Translation Function	Ontological Layer
Doña Gabrielita	Domesticating (Monetary)	Person, Place, Practice, People
Government (e.g. Mora County or NM Acequia Association)	Domestic and Foreignizing (Monetary and In-Kind)	Practice and People
Other (e.g. Trust or NM Acequia Association)	Foreignizing (Monetary and In-Kind)	Place, Practice and People

Establishing responsibility/liability and determining damages and compensation are two related, but separate things. When a party has accepted responsibility for the damage (as is the case with the Federal Government), it is still necessary to assess the damage to determine compensation. To make the assessment, the claimant must provide some evidence of the damages that were infringed upon them. However, as we have noted previously, those processes can often become extremely burdensome. We argue that part of that burden is explained by the domesticating effect of the current compensation process. In the federal claims process, this could take the form of several steps that have been described in a related qualitative study as “an interrogation” where

¹ The New Mexico Acequia Association is mentioned because it serves as an intergovernmental governance structure between acequia communities and serves as an agent for grants with the state and federal governments. It may act in both the cases of a domesticating or foreignizing system)

“nothing is good enough” and people are made to feel “like criminals defending themselves”². While compensation contains a necessary process of legitimization, those forms of legitimacy do not always have to emanate from the translating entity. This is why reliance on an indirect entity, whose presence in the shared ontological space of the translator and translated systems may make determinations that may be acceptable in cases such as these. The New Mexico Acequia Association gets mentioned several times because it evolved naturally to adapt local governance practices with the interests of the state government and has served as a translation hub as part of its mission since its establishment in 1990³. It’s not impossible to find entities who occupy a shared ontological space. However, the current compensation system views these issues as piecemeal, and largely avoids bigger cultural and historical concerns in favor of the more direct and immediate forms of compensation it can allocate.

Conclusion and Discussion

While the wildfire produced many different sets of challenges, the compensation system established by congressional act and managed by the Federal Emergency Management Administration (FEMA) has created a rare window whereby a massive influx of resources will be injected into a relatively isolated community whose practices are somewhat illegible to the public. That money may be a boon for actualizing aspects of itself which would otherwise be difficult to achieve. However, it may also be a point of inflection where, either directly or indirectly, Mora will lose those values that may not be fully understood by any one person as being a special contribution to humanity. Understanding that incalculable loss requires new and innovative ways to see this small but very important community, especially by people in economic and political influence. While it may take time for the trees to grow back, events that are changing Mora may have already passed. And although change is the constant of all human development (otherwise it would not be called “development”) it need not happen as a form of passive acquiescence to systems that inadequately see or realize the full value of a place. Mora is not merely an unincorporated community in a part of a former territory that was once the hinterlands of an empire and a site of interaction between mountain people and meadow people for thousands of years, it

² Taken from participation in community discussions that took place between April 2023 and January 2024. Also part of ongoing research by the Diverse Economies Workgroup, part of the UNM Transformation Network, namely the work of Cassidy-Tawse Garcia, Ria Mukerji, Ben Warner, Renia Ehrenfeucht, Marygold Walsh-Dilley and Manuel Montoya (with IRB approval).

³ For more information visit: <https://lasacequias.org/>

is also a place that has figured out ways to live in a world and survive despite being invisible to most and discounted by many. Its effort to resist incorporation is not a mark of its backwardness. It may see what others may only see in times of extreme crisis. Such wisdom may be its greatest resource, and processes like the wildfire compensation risk compromising the very things that preserve its wisdom.

A wildfire nearly destroyed a village, and with it, a unique place in a unique state. While Mora has been characterized as a place resistant to change, who carry an antiquated devotion to land, and whose encounter with progress is at turns rebellious, tragic, and often futile. Novels such as *People of the Valley* (Waters, 2023) have represented the people of Mora as a people stuck in time and place. The novel chronicles the encounter of a girl from a traditional agrarian family dealing with the government's intention to build a dam in the river valley. And yet, the stories that come from the community contain a level of sophistication that has been misunderstood as "magic" or "unsophisticated" when it may represent a voice that sees beyond the dichotomy of antiquity and modernity. Kids in Mora are growing up equipped as Americans with access to modernity. Their legacy will be to retain the "magical" encounter of these very real intersections of worlds. It follows that a "magical" economic logic is contained in what we have called a pluriversal economy. This modest attempt to review what scholars have said about non-market damages and loss was also an attempt to share a concept of compensation as a different point of reference, so that policymakers and the public may have another dimension (or four in this case) to reference as very real checks are printed and very real decisions are made by community members about what will matter after the fires and what will matter after the money is gone. As federal agencies moved towards compensation for the fires, the question of "which level of reality" requires compensation has largely been avoided. Ultimately, it would be a tragedy if the only thing that resulted from money being placed into Mora was short term material gain and a distraction of what makes Mora a special place. The question of "real world applications to serious problems" will ultimately require a follow-up question: "which reality?" The more comfortable federal agencies and scholars become with that follow up may determine the effectiveness of applying knowledge to sustain and preserve Mora and the many communities like it in the world.

It is important to note the authorial dynamics in this paper. The lead author was born and raised in the Mora Valley, has family affected by the fires and is part of the community affected by the fires, and still maintains close ties with the community. Furthermore, the author in question has a background in economic valuation of compensation and has participated in listening sessions, both formal and informal. This dynamic provides access to perspectives that are not always forthcoming in conventional

qualitative study. This position within the research has its limitations; however, it also provides a unique opportunity to construct a framework that has access to community knowledge in conversation with an economic context that would otherwise be difficult to merge. The approach had to take on a narrative form, also to account for the rich and deep perspectives of the co-authors, who are both students but also are teachers whose perspective as young scholars was invaluable to this project. Consequently, the work done herein may also be viewed as a form of transdisciplinary work on the subject of compensation, but it is also a form of critical analysis and critical reflection at an intersection we authors strongly encourage moving forward.

Appendix 1 – student perspective pieces and collective discussions

A Rural/Urban Divide and the World Values Survey

One clear factor at play here is the distance between rural and urban spaces. While it is understandable that we tend to intuitively equate urban living and modernity – in contradistinction to rural living and antiquity – with a greater emphasis on anthropocentric concerns and a correspondingly lesser emphasis on non-anthropocentric ones, it's far from obvious that this is an accurate equation. When one looks around at the modern world, one can hardly fail to notice that it tends to be the more urban areas of the globe which are most “secular-rational” and least “traditional”. This distinction between the “secular-rational” and the “traditional” draws upon data from the World Values Survey (WVS). Developed in the early 1980s, the WVS is an international research program devoted to the scientific and academic study of social, political, economic, religious and cultural values of people in the world. The project's goal is to assess the impact of changes in values over time on the social, political and economic development of countries and societies. The survey corresponds with a values index produced by Inglehart and Welzel (2005), who suggested that socioeconomic development is linked with a broad spectrum of distinctive value orientations, which they break down as an axis of secular vs. traditional values and survival vs. self-expression values, respectively (see Figure 2). Because the WVS contains a way of viewing groups of people as experiencing their worlds (in the case of the WVS as organized by nationality) through a confluence of values, we initially attempted to adapt the WVS as a means of organizing compensation claims for the Mora HPCC context. The idea was to place specific claims on a coordinate plane similar to Inglehart and Welzel's to determine whether or not the compensation process fully accounts for the damages and losses incurred by each claimant. This would have provided a way for both FEMA administrators, claimants, and the judicial system to acknowledge the intangible value within each of the cases. Moreover, it was a way for this project to evaluate damages and losses in a more comprehensive way. In applying this work, several key processes become obvious. First, we did not want to overly essentialize rural life as the exclusive domain of land stewardship – to the point of being romantic and over idealized. There is no definitive study that shows that rural spaces are more environmentally conscious, and we were aware that any attempt to produce such a taxonomy could easily lead to the oversimplification and cultural essentialism that we found was a core problem of the “obligation to incorporate”. There is room to argue that urbanness and economic and technological development tends to be accompanied by environmental consciousness and a concomitant reversal of net

environmental degradation. Yes, as counterintuitive as it might seem, modernity and economic development may be good for the environment. That is, when people are faced with a choice between electricity and clean air, they'll be willing to put up with some smog. But, once they become rich enough to afford both, they'll spring for the clean air. To cite a pithy maxim usually attributed to the German playwright Bertolt Brecht, "Grub first, then ethics." As researchers like Julian Simon (decades ago) and Marian Tupy (more recently) have argued, the efficiency – both physical and informational – which is made possible by urban living tends to cause per capita environmental impact to be less than under alternative modes of social organization. Indeed, while the idea of the Anthropocene epoch is no longer very controversial, what remains highly controversial is this epoch's putative start date. There is increasing evidence that – again, as much as this may fly in the face of our basic intuitions – the per capita environmental impact of humankind today, in the twenty-first century, may actually be substantially less than in the Neolithic. Of course, there are many times more people alive today, so our total environmental impact is greater, but on a per capita basis, it seems likely that the average modern person has a smaller negative impact on the non-human world than his or her ancestor of fifteen thousand years ago.

Additionally, as our moral intuitions have, over time, increasingly shifted in a direction pointing away from the "traditional" and toward the "secular-rational," the level of thought we tend to spare for the wellbeing of non-human animals has skyrocketed. This can be measured in a variety of ways. Rates of vegetarianism and veganism have increased vertiginously in the developed world during recent decades (and the most common reasons cited by people, when asked, are ethical). To quote myself, at length, from an essay I wrote in the fall of 2022 on the subject of how different our ethical norms regarding the treatment of non-human animals are now from what they were in the past:

Writes Pinker, citing Brandt, 1974, "Hopi children, for example, were encouraged to capture birds and play with them by breaking their legs or pulling off their wings." Bleeding, cooking, disemboweling, and even cutting choice strips of flesh from the bodies of animals – all while they remained alive and sensate – have been common practices across many civilizations and cultures. Blood sports such as bear-baiting and cat-burning were popular pastimes as recently as the eighteenth century. In the movie industry of less than a century ago, arrestingly lifelike scenes featuring horses toppling over cliffs were achieved by... actually filming horses toppling over cliffs. And, according to an old joke, after being advised by a neighbor to castrate his plough horse with two bricks to improve its efficiency, a young farmer responds

by asking, hesitatingly, “But... doesn’t that hurt?” Bemused, his neighbor replies, “Well, no, not if you keep your fingers out of the way.”

The Inglehart-Welzel World Cultural Map 2023

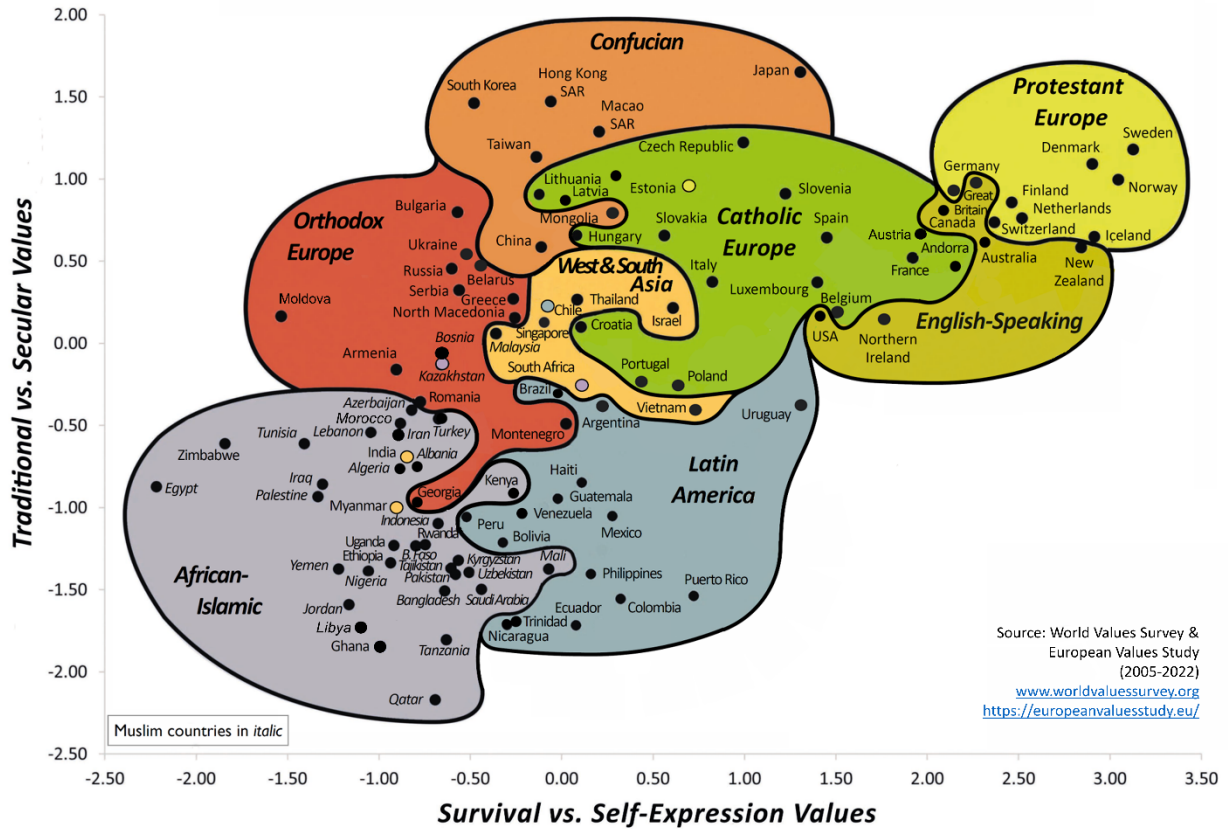


Figure 2 (World Values Survey Inglehart-Welzel World Cultural Map)

In summary, while we often think of urbanness, modernity, and the “secular-rational” attitudes which tend to accompany these things as being associated with anthropocentrism and a concomitant derogation of the non-anthropocentric, and, correspondingly, to think of ruralness, antiquity, and the “traditional” attitudes which tend to accompany these things as being associated with non-anthropocentrism and a concomitant elevation of the non-anthropocentric, I actually believe this picture to be largely fallacious. Indeed, if anything, it gets things precisely backwards. As countries grow richer and more urban, they care more – not less – about the environment, and national poverty has been shown to be strongly correlated with local environmental degradation (erosion and river siltation, water pollution, air pollution, deforestation, you name it). As societies grow more “secular-rational” they care

more – not less – about the wellbeing of non-human animals. This is visible across space at a given time, but it is even more apparent when one looks across time, comparing present attitudes to past ones. As a final note, even the long-awaited “decoupling” – a phenomenon ardently deemed to be impossible by some – seems finally to be happening, with dozens of countries around the world achieving significant economic growth while simultaneously reducing CO2 emissions over the twenty year period from 2005 to the present (including countries as economically and culturally diverse as Croatia, Cyprus, Czechia, Denmark, El Salvador, Estonia, Finland, France, Germany, Hungary, Ireland, Jamaica, Japan, Latvia, Mexico, Netherlands, New Zealand, Portugal, Romania, Singapore, Slovenia, Spain, Sweden, United Kingdom, and even the United States).

Why is New Mexico a pluriverse?

In New Mexico, for example, Los Alamos county is home to one of the world’s largest laboratories. It is the birthplace of the atomic bomb and a complex arrangement of scientific research and national security policymaking. Thirty minutes East of the labs are several communities, some of them Sovereign Pueblos (e.g. Nambe, Tesuque, and Pojoaque), others Hispano villages (e.g. Dixon and Embudo), and still others small municipalities (e.g. Espanola) that have both rigid and porous borders from one another. In a radius of 50 miles, you may find an overlay of scientific technology, gravity-based land irrigation, and casinos that are not separated by historical/cultural machines that are intentionally segregated but are also connected by landscapes and access points that assemble and bind these communities in other ways that somehow convey one is crossing into “another world”. We have seen major examples of these threshold spaces, including Istanbul/Constantinople, Jerusalem, Belfast, Ciudad Juarez – which is why pluriversality has started to gain traction in fields such as Borderlands Studies and Community Planning (Reitsma, 2024). Now is the point where literature on economics and non-market valuation can intersect with several of these other bodies of literature. One intersecting point, for us, was how to approach the breadth of fields within the field of economics without being taken over by the momentum of any one field of study. This is the virtue and challenge of strong interdisciplinary research.

Value, Nature, and Discipline (some additions that might potentially be worth talking about and expanding upon)

During several of our discussions we described what is referred to as a plane of immanence. The plane of immanence was given some popularity by Deleuze and Guattari in their book *Capital and Schizophrenia* Vol. 2, *The Thousand Plateaus* (1980). E.W. Holland (2013) offered that what The

Thousand Plateaus offers is a way of thinking about the way that markets become flat spaces. To achieve this, markets are popularly motivated to confer one shared meaning at any one time, meaning the market is homogenizing by design. Only when something jumps outside of the market's ability to provide shared meaning does it produce another "plane of immanence" which "smooths out" the meaning of a thing over time. This itself is a riff on Spinoza's ethics and how he conceives of all ethical systems to be produced by the shared understanding of the substance of the world. Given the intrinsic link between global climate change, ecological crisis, and the events of the CCHP fire, a critical theory of value as a disciplinary and regulatory measure in ecological spheres is necessary for understanding the relationship between the state, economies, and communities. Contemporary English-language value theory, most popularly represented by Mau (2023) in *Mute Compulsion*, seeks to revitalize the thoroughly dispensed "economism" of Marx and serves to recontextualize this perceived economism as expressing the "impersonal, abstract, and anonymous form of power immediately embedded in the economic processes themselves". This reconceptualization of capital as social domination is a politically necessary exercise in the relevance of Marx, showing where exactly an "unfreedom" lies in the historical specificity of capitalism - the mediation of social relations and means of living through the logic of capital.

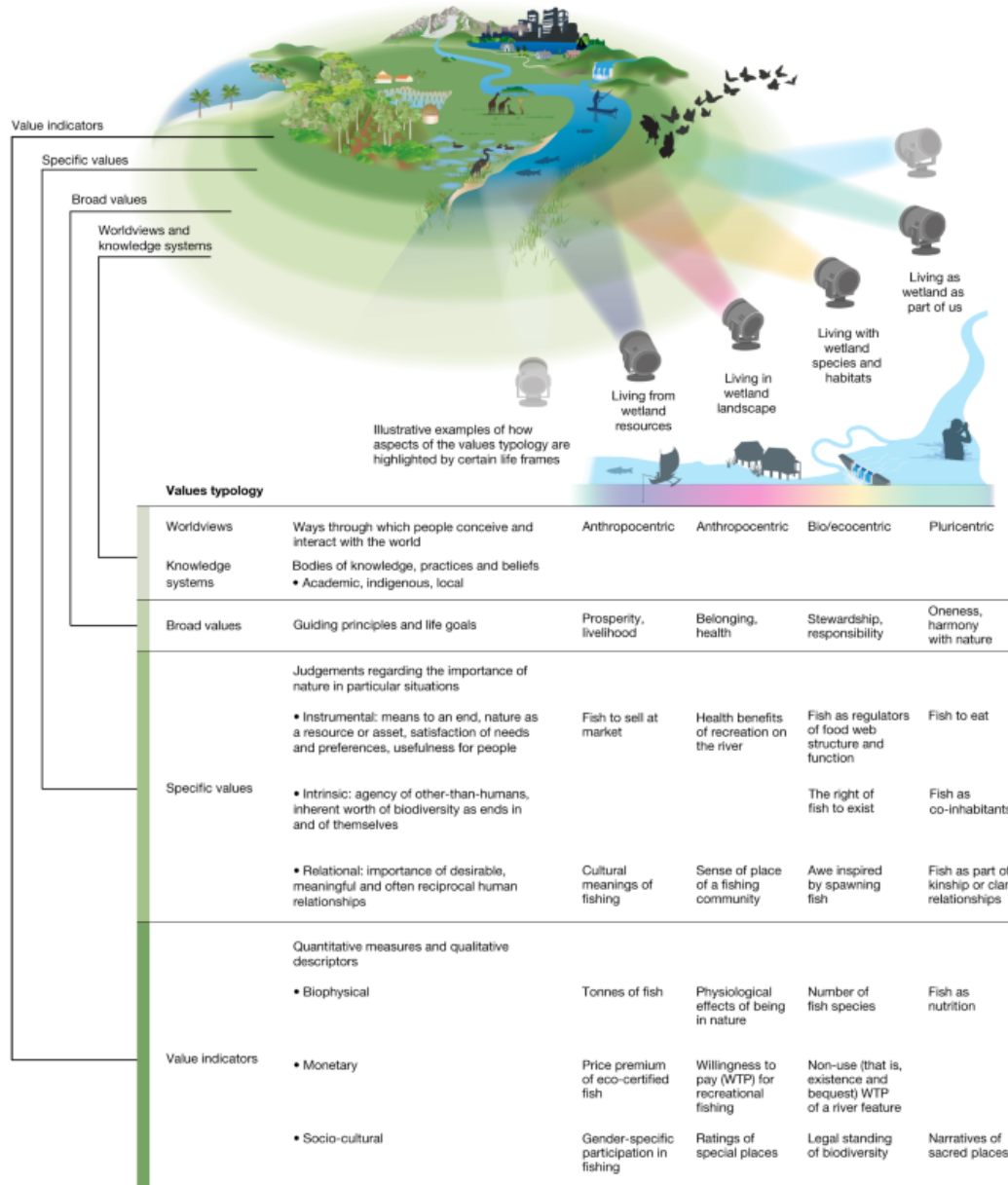
The political backbone of the work, that of capital as social domination, is mostly drawn from the school of "value-form theory" or "Neue Marx-Lektüre" theorists such as Michael Heinrich, Moishe Postone, and Hans-Georg Backhaus, who generally have not received much attention in the anglophone world for this type of work until very recently. These theorists were heavily influenced by the rediscovery of purged early Soviet economist Isaak Ilyich Rubin in the 1970s, who radically reconceptualized Marx's labor theory of value as an immanent critique, as an analysis of how abstract human creative power is uniquely shaped and made objective by value. Mau notes elsewhere that theorists such as Raya Dunayevskaya and Diane Elson similarly touched on how the "labor theory of value" might more accurately be contextualized as a "value theory of labor" in the same vein as the aforementioned value-form theorists, with the logic of value serving as the overall mediating principle of abstract labor. However, Mau remains critical of the "absolute" historicity of the value-form theorists and places them and the concepts of orthodox Marxism in dialogue with more flexible forms of historical interpretation. From this negation, Mau seeks to outline a "social ontology of economic power" (70) and puts the possibility of a materialist theory of human nature on the podium. Following Marx, Mau posits that the evolution of tools and the ability to regulate the human-nature metabolic relationship is what creates a

distinct human species separate from the rest of nature, in that humans can potentially dictate the terms upon which this metabolic relationship unfolds. This gap between humans and a metabolic relationship with the environment, especially means of subsistence, is where social relations and historically specific social domination can step in, creating infinite possibilities of organization. It is in this gap where the logic of capital reigns and “power can weave itself into the very fabric of human metabolism” (115).

Applying this thinking to immediate ecological circumstances, Mau primarily draws from Malm (2016) to outline a critical history of the use of fossil fuels to “diminish the irregularities of nature” (242) and create a subsumption of all human and nonhuman resources and labor for the benefit and legibility of capital, creating a dynamic by which that human-nature metabolic “gap”, filled by capital, is what is primarily responsible for the unfolding global crisis. Within frameworks of capital, as Best (2024) notes in *The Automatic Fetish*, another popular contemporary work in English language value theory, “cheap nature or expensive nature makes no difference with respect to the logic of capital. It is its commodified nature (its form) that brings us to where we are today” (116). This logic of “natural resources” as an extension of the value form is the root of the contradiction between the modes of living lost or damaged in the CCHP fires and the bureaucratic gaze of FEMA. In the many cases of “non-economic” methods of structuring the economy, community-based modes of forestry, medicine, and overall tradition are disciplined to fit within the confines of exchange value as it is defined by the power dynamics that have historically shaped it. It is these dynamics reified by the disaster apparatus which privilege capital in a key crisis of human-nature metabolism, rather than the communities living in tandem and within said nature.

Potential graphic representations/visual analogies

One way to think about the layering of ontologies is to think about old anatomy books where the layers of different systems are organized. Part of what makes that layering compelling is how it helps us think about the different realities and how they are bound to each other in order to function properly in any time or place. Similar to those transparent human body flip-books, one can find both a topological and theoretical connection to value, nature, and economy in the following image:



This image forms a foundation for thinking about the many ontologies being discussed in the formulation of this project. It could also be very helpful here in terms of creating a typology. As this continues to be discussed, one of the implications is that of legal precedent. A lot of the community members in Mora and lawyers in news articles consistently reference the legal precedence of non-economic compensation in New Mexico (mostly in reference to clergy sexual abuse cases) and use this as leverage against FEMA's saying that there is no such precedent/possibility. Especially if this is going to be shared with lawyers and potentially used in any capacity to shape (or shape something that shapes) a legal argument, this would be worth mentioning in terms of the creation of alternative valuation systems or recognizing

“incoherence” in trying to identify a uniform legal subject in a case like this within the compensation process.

What other Economic Issues help us understand the problem?

One of the primary economic takeaways is that in a pluriversal system, asymmetric information prevails in a manner of ways. In the mid-1980s-90s a body of literature on compensation emerged, notably Jensen and Meckling (1976) and Holstrom and Milgrom (1987) that argued that the multi-agent relationship must be explored both as a non-market and market-based problem, because of the principal-agent problem (where an agent has an information advantage over the principal). In these cases, resolving a principal-agent problem may require changing the system of rewards to align priorities or improving the flow of information, or both (Jensen and Meckling, 1976). These informational constraints are analogous to what we herein have referred to as a pluriversal system. However, in the pluriversal case, the principal and agent roles switch depending on what plane of reality is containing the discussion or transaction. This has confounded scholars of informal and non-market institutions for decades.

Appendix 2 – Review of Valuation of Intangible Loss

Intangible losses and damages

The concept of loss describes a reduction of circumstances. It can be individual or collective and covers anything in existence, be it physical, financial, environmental, cultural, emotional, mental or spiritual (Butchers et al. 2023). Loss and damage are often used interchangeably. However, these terms differ: a loss is commonly defined as the suffering of an adverse impact that cannot be repaired or restored due to its nature; a damage, on the other hand, describes negative impacts for which reparation or restoration is possible (Doktycz and Abkowitz 2019). Depending on their costs, losses and damages are divided into tangible and intangible. Whereas the former describes damages and losses that can be easily assessed in monetary terms due to having market prices, the latter category refers to adverse consequences for which there is no market price (Dassanayake et al. 2015). Intangible losses and damages are suffered by society but are difficult to value monetarily and are often estimated using revealed or stated preference methods (Doktycz and Abkowitz 2019; Markantonis et al. 2012). Examples of intangible losses and damages include human harm, environmental degradation, impacts on cultural heritage or adverse effects on health or well-being (Doktycz and Abkowitz 2019; Markantonis et al. 2012).

Although this review focuses on intangible losses and damages, it is worth noting that losses and damages with tangible costs can be further categorized into direct and indirect costs. As the name suggests, direct tangible damages and losses are the immediate negative impacts of the disaster event. The archetypical examples of direct tangible costs are property losses and damage to infrastructure. Indirect tangible costs, on the other hand, are the negative consequences attributable to the disaster event. Examples of indirect tangible losses include disruption costs, lost tourism or diminished living conditions (Dassanayake et al. 2015).

Intangible losses impose challenges of an economic, legal, historical and political nature. From an economic perspective, it is difficult to put a price on things such as a person's physical and emotional well-being or a pristine ecosystem that provides beneficial environmental services to society. Additionally, compensation-seeking proceedings for intangible losses are often at the margins of the legal framework. As a result, claimants might face protracted and uncertain court battles that over time become more about obtaining a symbolic victory than an economic one. When this happens, parties are, in essence, fighting for historical revisionism or control over a narrative of the events that led to the

intangible losses perceived or experienced by the claimants. Consequently, the fight over an intangible loss is often political. This is particularly true when the legitimacy of the claimants is linked to group identities. The discussion below explores and exemplifies these challenges with cases of environmental degradation, cultural heritage and state-sanctioned policies of forced assimilation and sexual slavery.

Economic valuation of non-market goods and services

The question of how to quantify and monetize intangible goods such as ecosystem services has received ample attention within economics. The cost assessment techniques for non-market goods are built on the premise that the Total Economic Value (TEV) of the good must be recognized. This implies accounting for two different types of values that individuals derive from the environmental asset: the value derived from using the environmental goods and services (i.e. use values), and the value derived despite having no direct involvement with the natural resources (i.e. non-use or passive use values) (Markantonis et al. 2012; Carson et al. 2003). Use values can be consumptive or non-consumptive, while non-use or passive values usually encompass the existence value and philanthropic value of the good (Baveye et al. 2016). One thing to note is that the notion of TEV is limited to the instrumental value of ecosystem services to humans. Although there has been debate about whether the intrinsic value of nature should also be accounted for in the TEV (see Davidson 2013), the prevailing view seems to be that economic valuation itself is a deeply anthropocentric exercise which excludes anything inconsequential to humans (Baveye et al. 2016).

To estimate the costs of intangible effects of environmental hazards, economists use methods based on either revealed or stated preferences. Revealed preferences methods are employed when it is possible to obtain observed behavior data of a surrogate market in which the non-market good is implicitly traded (Markantonis et al. 2012; Baveye et al. 2016). Using property prices to assess the value that people attach to environmental attributes such as flood risks or urban greening are examples of hedonic pricing, a method based on revealed preferences (Cavailles 2009; Hamilton 2007; Ismail, Karim, and Hasan-Basri 2019; Kuroda and Sugawara 2023). In addition to hedonic pricing, revealed preferences methods include the travel cost method, the cost of illness approach, and the replacement cost method. In cases in which the non-market good is not implicitly traded in any related markets, economists use stated preferences methods. Since “passive use leaves no behavioral trace” (Carlson et al. 2003), only stated preference methods are applicable to estimate non-use values. These methods rely on surveys and consist of eliciting people’s preferences over a hypothetical market or scenario. In theory, it is possible to elicit preferences by using either of the following measures: the willingness to pay (WTP) to

improve environmental quality or to avoid its degradation, or the willingness to accept (WTA) compensation for a deterioration in the environmental quality or to forgo an improvement in environmental quality (Markantonis et al. 2012). However, although the WTA is conceptually the correct measure for non-use value environmental losses, the NOAA Blue Ribbon Panel on Contingent Valuation argued in favor of employing the WTP as a conservative measure to avoid presenting individuals with implausible scenarios as well as obtaining unrealistically high responses (Arrow et al. 1993). The main approaches to elicit stated preferences are contingent valuation and choice modeling. Contingent valuation consists in directly asking participants for their WTP for an environmental improvement, typically via a referendum question. In contrast, choice modeling consists in asking respondents to choose between different bundles of attributes at different prices. Regardless of the approach employed, the cornerstone of stated preferences methods is an incentive compatible instrument. To this end, respondents must perceive their answers as consequential to the policy implementation decision as well as to the financial costs they would bear as a result of this outcome.

The first time a valuation estimate was employed to litigate a claim for losses in passive use value was in 1989 in the aftermath of the Exxon Valdez oil spill. This episode was one of the major environmental disasters in U.S. history and occurred when the Exxon Valdez strayed off the designated shipping lanes to avoid icebergs. As a result, the tanker ran into submerged rocks and, when the oil compartments ruptured, it released 11 million gallons of crude oil into the Prince William Sound in the Gulf of Alaska. As part of the legal strategy against Exxon, the State of Alaska conducted a large-scale contingent valuation study on a nationally representative sample of the U.S. population. Carson et al. (2003) analyze and situate this exercise within the debate surrounding contingent valuation methods in the economics literature: The final survey was administered via face-to-face in a nationally representative sample, but the instrument and its supporting materials were developed over an 18-month period with feedback from six exploratory focus groups and four pilot trials in different locations of the country. The first half of the interview was devoted to informing the respondents about the three main components of the study: 1) the oil spill and its effects; 2) a program that could help prevent another disaster of this nature; and 3) the way in which the respondent would pay for this program if the individual decided that investing in the program was worth the specified cost. The elicitation method was a binary discrete choice question which required individuals to give a yes or no response to the implementation of a program to prevent another spill with similar effects at a specific cost via a lump-sum tax payment. This approach was carefully chosen because this take-it-or-leave-it type of question is generally incentive-compatible as long as it is credible that the government can compel payment if the referendum is

approved (Carson and Groves 2007). The questionnaire also included questions about respondents' characteristics, attitudes and beliefs to allow for the construction of valuation functions. Finally, at a later point of the interview, respondents were given the chance to rethink and change their vote if they wished to do so. Many of the practices employed by this study were later deemed as the gold standard recommendations for contingent valuation studies by the 1993 NOAA Blue Ribbon Panel on Contingent Valuation. For a more up to date list of guidelines, see Johnston et al. (2017).

According to Carson et al. (2003, pp. 278), "the original study reported an estimate of \$2.8 billion (1990) dollars as the lower bound on the estimated aggregate lost passive use values" that relied on the median WTP. The authors view this as a very conservative estimate for two reasons: first, the mean WTA, which is theoretically the most appropriate measure, is greater than the median WTP; and second, the median WTP is less than the mean under the weak assumption that the distribution is right-skewed. Therefore, Carson et al. (2003) recalculate the mean WTP using non-parametric and more flexible parametric models that were not available at the time of the original study. Their most conservative mean WTP estimates yielded \$4.87 billion dollars using a non-parametric approach and \$7.19 billion dollars when using a parametric three-parameter Weibull distribution. In reality, the State of Alaska and the U.S. government reached a settlement with Exxon for 1 billion dollars in damages. Additionally, Exxon spent over 2 billion dollars on oil spill response and restoration. As highlighted by Carson et al. (2003), the total sum is comparable to the \$2.8 billion estimate put forth by the original contingent valuation study.

More recently, stated preference methods have also been employed to assess the value of cultural heritage sites. Tuan and Navrud (2007) estimate the social benefits of the restoration and preservation program for the My Son world cultural heritage site in Vietnam using contingent valuation and choice modeling. My Son is a complex of religious temples that was recognized as a world heritage site by UNESCO in 1999. Every year it receives over 100,000 national and foreign visitors. Cultural tourism is important to Vietnam, both for symbolic and economic reasons. However, cultural heritage sites like My Son are threatened by degradation and destruction caused by human activities and omissions, such as over exposure to tourism pressures or plain neglect. Thus, the authors elicit the WTP for a restoration and preservation plan among residents and foreign visitors via two methods: 1) a contingent valuation survey with a referendum type question and different payment vehicles for locals (a tax) and foreign tourists (a one-time fee) at different bid amounts; and a choice modeling questionnaire with different formats for locals and foreigners that assessed paired choice sets of 4 attributes (i.e. price, preservation plan, infrastructure upgrade, and additional services) at different levels. All instruments contained a

detailed description of the current state of My Son, debriefing questions, questions about attitudes and sociodemographic characteristics, and evaluation questions addressed to the interviewer. The mean WTP ranges from 6.21 to 7.97 USD among foreign tourists and from 31.52 to 35.06 USD among residents, depending on the method employed. The estimates for mean WTP that Tuan and Navrud (2007) obtained by both methods are relatively similar, and, with the exception of the non-parametric estimate for residents, the null hypothesis of equality between the estimates derived from each approach cannot be rejected. The authors interpret this result as a test of convergence validity.

Legal and political challenges to compensation, meaningful reparations and control over the collective memory

In addition to the complexities of quantifying and monetizing an intangible loss, the way in which the law tends to connect damages to the concept of reparations further complicates addressing these types of losses. This is particularly true when the physical element impacted is linked to immaterial aspects such as social, cultural or spiritual elements. Interactions characterized by oppression and abuse rob people of an array of intangible aspects that are essential to the wellbeing of individuals, specific groups within society and to society at large. Yet, legal systems are often ill-equipped to deal with these losses (Butchers, Linder, and Maguire 2023; Ishikane 2006). As a result, the victims of gross human rights violations have been systematically overlooked. In the absence of meaningful compensation, the struggle for justice often becomes a political fight over recognition and collective memory for survivors and aggrieved parties.

Butchers et al. (2023) argue that the Australian legal system marginalizes the experiences of the First Nations Peoples partially because the legal framework equates reparations to economic compensation and juxtaposes these terms to the concept of loss. Additionally, the authors posit that the adversarial nature of the justice system “creates an ‘us’ versus ‘them’ narrative, which prevents a conciliation approach whereby both parties are looking to resolve injustice” and reproduces the structural inequality of colonialism (Butchers, Linder, and Maguire 2023, pp.806). In their view, this explains why the Australian government initially rejected the findings of a national inquiry report on the Stolen Generations of Aboriginal and Torres Strait Islander children separated from their families between the 1880s and the 1980s, and also refused to adopt the van Boven principles to address gross human rights violations.

Thousands of children were separated from their families and placed into group homes or sent away to white families (Australian Human Rights Commission 1997). Under the care of the state, children were first trained in domestic duties or farming and then exploited (Australian Human Rights Commission 1997). They lived in squalid conditions and were treated like slaves (Australian Human Rights Commission 1997). Neglect and abuse (physical, sexual and psychological) were rampant (Australian Human Rights Commission Bringing Them Home Report 1997). Moreover, children's names were changed and any connections to their families, culture and language erased (Butchers, Linder, and Maguire 2023). For Aboriginal Torres Strait Islander women and girls, this policy of forced assimilation was essentially a legally sanctioned genocide attempt against the First Nations Peoples (Australian Human Rights Commission Wiyi Yani U Thangani Report 2020). Recovering from such massive collective intergenerational trauma is not possible via "individual or piecemeal interventions alone" (Australian Human Rights Commission Wiyi Yani U Thangani Report 2020, pp. 71).

The resulting trauma is of unfathomable proportions. On one hand, the children of the Stolen Generations and their descendants are more likely to experience poor -physical and mental- health, substance abuse, poverty, domestic violence, poor education, and difficulty to parent their own children (Butchers, Linder, and Maguire 2023; Australian Institute of Health and Welfare 2018). On the other hand, the communities that experienced the removal of their children lost the opportunity to create emotional, cultural and spiritual bonds (Australian Human Rights Commission Bringing Them Home 1997). This level of disempowerment and cultural loss "severely impacts well-being and causes considerable, long-lasting, and transgenerational adverse outcomes" (Butchers, Linder, and Maguire 2023. Pp. 814).

After initially rejecting the findings of the *Bringing Them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from Their Families* ('*Bringing Them Home Report*') for fear of fostering a culture of guilt -and bearing the ensuing political costs-, the Australian government finally apologized to the First Nations Peoples for the Stolen Generations. The change in stance came in 2008, when freshly elected Prime Minister Kevin Rudd came into office. The apology, however, did not admit negligence or liability and held no legal ramifications (Butchers, Linder, and Maguire 2023). Initial attempts to obtain compensation for damages and losses were unsuccessful, but the creation of state-level reparation schemes and the launch of a class action suit in the Northern Territory have opened this possibility. Nevertheless, the compensation schemes are limited in the sense that only offer *ex gratia* payments (i.e. without the recognition of liability) and are not accompanied by

any change in oppressive government policies that would be more meaningful in terms of reparations and conciliation (Butchers, Linder, and Maguire 2023).

The legal battle over a historic narrative and reparations for damages has not been easier in the international arena. Korean women survivors of sex slavery under Japan's comfort women system and bereaved family members have been denouncing the Japanese government since the 1990s to publicly recognize and provide compensation for the atrocities Japan committed during World War II. Although Japan originally denied the existence of comfort stations sanctioned by either the Japanese government or the military for nearly fifty years after the war, the official Japanese stance changed in 1992 after Yoshimi Yoshiaki, a history professor, unearthed and published official government documents that detailed the involvement of the Japanese authorities. These documents validated the accounts of Korean victims and Japanese soldiers about how the sex slave system operated under the command of the Japanese authorities to appease soldiers and maintain stability in the occupied territories.

Korean women were easy targets of deception, coercion and forcible abduction by the Japanese, who viewed Korean people as an inferior race (Ishikane 2006). As a result, a large proportion of comfort women were Korean (Ishikane 2006). These women lived in abject misery inside tiny cubicles in barracks-style stations that provide sexual services around the clock (Ishikane 2006). Disease, violence and abuse were rampant; hence over 70% of enslaved women died during the war (Ishikane 2006). Additionally, those who managed to survive experienced life-long physical and emotional negative consequences as well as severe isolation due to shame or ostracism from their families and communities (Ishikane 2006).

Survivors and their families want justice and healing after years of silence and denial. Their demands, however, have clashed against the interest of a nation heavily vested in guarding its image and prestige in the international community. In general, Korean enslaved women want Japan to: a) fully and openly acknowledge its responsibility for the suffering inflicted upon them; b) issue a formal apology; and c) provide compensation for damages and losses. In contrast, Japan's strategy has consisted of minimizing its direct involvement, deflecting attention and successfully litigating protracted battles against survivors in courts within Japan and the U.S. (Ishikane 2006). In 1997, Japan established the Asian Women's Fund (AWF) to show atonement and express remorse to the former so-called wartime comfort women". However, the AWF was not seen as a sincere admission of guilt and was heavily criticized for being an attempt to salvage the reputation of Japan in exchange for the silence of Korean women (Ishikane 2006).

By applying the four-dimensional framework of the “Four Rs” -recognition, responsibility, reconstruction and reparation- developed by Professor Eric Yamamoto, Ishikane (2006) posits that a truth and reconciliation commission would have been the most viable method to move forward twenty years ago for four reasons: First, truth commissions focus on the past. This approach might help to put Japan at ease but is less adequate now that there are very few remaining survivors. Second, the truth commission’s aim is to shed light on the abuses. In doing so, the truth commission validates the experience of survivors and aids in the creation of a new historical narrative that is inclusive of different experiences and recognizes the harms inflicted upon comfort women. Third, the truth commission functions only for a determined period. Lastly, the findings of the commission are validated by its authority and legitimacy. Although perhaps no longer viable for Korean enslaved women, truth and reconciliation commissions could be adequate in other gross violation cases as proven by the South African success story.

Intangible losses impose challenges of an economic, legal, historical and political nature. From an economic perspective, it is difficult to put a price on things such as a person’s physical and emotional well-being or a pristine ecosystem that provides beneficial environmental services to society. Methods based on stated preferences are the most suitable approach to value non-use values. These methods have been applied to value ecosystems and cultural heritage sites. However, although not explored in this review, it is worth noting that these methods have limitations and have been subject to ample debate and criticism.

Additionally, compensation-seeking proceedings for intangible losses are often at the margins of the legal framework. As a result, victims of gross human rights violations might be overlooked. Moreover, when survivors decide to fight for justice and recognition, they may very well face protracted and uncertain court battles that over time become more about obtaining a symbolic victory than an economic one. When this happens, parties are, in essence, fighting for historical revisionism or control over a narrative of the events that led to the intangible losses perceived or experienced by the claimants. Consequently, the fight over an intangible loss is often political. The cases of Australia’s First People Nations Stolen Generation and Korean comfort women exemplify these challenges.

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