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“New Wine in Old Bottles”: Structures of Feeling for a New Way to See New Wood Products

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Abstract: Acknowledging an undeniable need for innovation, this paper offers a qualitative assessment for recognition and policy advocacy for superior innovations—for new wood products and processes offering more benefits and fewer drawbacks than other innovations. The paper highlights the irrationality of using the limited natural and human-made goods of the world to produce and consume inferior innovations, especially when they fail to mitigate or, in fact, contribute to worsening climate change. Raymond Williams’ “structures of feeling” are used to disclose evaluative commitments associated with the “new” characteristic of industrialized and indigenous civilizations toward illuminating potential pathways for halting an otherwise seemingly unstoppable engine of climate change from pushing all of life on Earth over its precipice. Discussing how the “new” is always implicated in the “old,” decision-making and design methods applicable over the whole of the value chain are proposed for generating “new” innovations and processes that are genuinely able to change the current world trajectory of our species. Future research is also discussed.

Keywords: anthropocene; sustainability; qualitative assessments; structures of feeling

1. Introduction

In previous work on sustainable wood sourcing [1], a colleague and I explored whether assumptions about existing wood-sourcing practices generated sustainable outcomes and, if not, what alternative frameworks might better afford sustainable practices. We approached the issue critically but as sympathetic observers with “an attitude of understanding toward what sees” [2] (p. 110). Building on the fruitfulness of that approach, this paper aims to critically examine what could be meant by sustainably new wood products. It argues toward a proposed metric for assessing the sustainably “new” itself. Throughout the paper, “assessment” is meant as a qualitative, relatively scaled metric for evaluating new wood products over the whole value chain, from sourcing and design to production and distribution, against a criterion of mitigating, or not further exacerbating, climate change. Such an assessment could be applied to all “new” products and processes, not just wood products.

Anticipating the more detailed argument in Section 2.1, it should be possible to agree without controversy that new wood products with more benefits and fewer drawbacks are more desirable to produce and consume than new products with fewer benefits and more drawbacks. Simply for brevity, such more desirable new wood products are deemed superior. Consequently, this paper axiomatically rejects, again presumably without controversy, any use of the world’s limited natural and human-made resources for producing and consuming inferior products as self-evidently irrational. However, because industrialized civilization’s use of those limited natural and human-made resources is also a critical driver of global climate change [3,4], this further mandates a moratorium on such use.

In fact, as a matter of definition, one can assess inferior products precisely as those which, over the breadth of their value chain, contribute to or do nothing to lessen worsening climate change. The dilemma is this: our historical sense of the innovative and “new”,



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while manifestly improving lives in many ways, has nonetheless also directly contributed to the globe's worsening climate so that we are now burning down the house we live in [5]. Nevertheless, we cannot and should not wholly forgo all production and consumption of "new" innovations for two critical reasons. First, although a relentless will to produce and consume "new" products over the last two centuries has brought the world to the brink of climate extinction, superior new products and processes are still practically needed to avert that fate. Second, what has passed for the "new" has self-evidently not productively deflected our course away from impending climate disaster [6]. As such, what has been "felt" or seemed "new" under the banner of the advertiser's slogan "new and improved" [7] has more often proved only more of the same in different packaging ("old wine in new wineskins"). It is primarily for this second reason that a new sense of the sustainably "new" and a metric to assess it are essential.

The first step in any effort to identify such an alternative and assessment must be to demonstrate its possibility practically and affectively. As a practical example, on the Menominee people's lands in Wisconsin, USA, their climate-change-resilient forms of indigenous stewardship currently afford the harvesting and use of forest trees for lumber in ways that maintain forest health metrics and biodiversity greater than nearby U.S. federal and state forest reserves [8]. This "new" implementation of an "old" use of indigenous stewardship offers practical proof. However, its example and evidence also cut through an otherwise affectively paralyzed impasse between anti-consumerist "small is beautiful" discourses on the one hand, which require civilizations to forgo or regress in their current standards of living or resource use [9,10], and pro-producer "technocratic optimism" discourses that promise, despite ever-increasing evidence to the contrary, that "new and improved" advancements in technology will stave off or avoid the impending global extinction facing all life on Earth [11,12].

In fact, this impasse is two sides of the same coin that keeps the train of humanity's industrialized civilization hurtling ever closer to the cliffs of climate disaster. This frequent image of a train steaming toward a cliff is striking during an era of mass extinction that has already seen millions of those traveling with us on Earth disappear over the precipice [13–15]. Realizing this affords seeing that—rather than the conventional image of an engine dragging a long train of human civilization behind it—the engine is actually at the back of the train and pushing the cars in front of it over the cliff first. Importantly, not all of those first over the cliff have been nonhuman; besides the many historically known and unknown "removals" of indigenous inhabitants from their lands by invaders, for many human beings right now, the climate crisis is not looming in the future but already present [3,4]; indeed, new metrics already exist to measure the daily "fingerprint of climate change" [16] (p. 35). Moreover, the most emphasized feature of this popularized image of industrialized civilization as a train is that it is unstoppable. An immediate effect of this is to irrationalize and demoralize efforts to change the situation [17], even as more cars are being pushed daily over the cliff. As such, the image is affectively and motivationally disabling and disheartening and contributes to people's hopelessness about addressing climate change [18,19]. However, this situation is also deliberate; outside of campaigns to generate and spread climate disinformation [20,21], Malin and Kallman [17] have also described their specific strategies for "enforcing hopelessness" in the general population.

As an alternative and contrast to this situation, acknowledging the Anthropocene in which we find ourselves as a global species offers "a fundamental change in the relationship between humans and the Earth system" [22] (p. 171). It motivates proactively changing our approach to using the world's limited natural and human-made resources to secure our survival [1,23]. It calls pragmatically for genuinely "new" innovations and a superior feeling or sense of the sustainably "new" to succeed our old sense of the "new and improved" ("old wine in new bottles"). Inarguably, the socio-institutional forces and tools of the industrial revolution(s) and their subsequent modern science initially promised humanity an unparalleled and potentially unlimited "mastery" of Nature [12,24–26]. However, industrialized civilization has since moved beyond the point of rational optimism. Rather

than mastering Nature, our tools have arguably mastered us [12,27], have undermined our agency to change them [28,29], and may now require an intervention to curb our “addiction” to production and consumption [30,31]. Against the disheartening prospects of this diagnosis and its hopelessness, the Menominee people’s indigenous stewardship as “new wine in old bottles” demonstrates one possible way out of our current dilemma. It motivates the search for a metric or assessment for determining what sustainably “new” innovations over the entire value chain could consist of.

2. Structures of Feeling and the Sustainably “New”

From the Introduction, the two critical points raised for “new” wood products in light of climate change are a need for (1) pragmatically superior “new and improved” innovations and (2) a new affective sense around the sustainably “new” itself. For clarity, the two assessment criteria for superior “new” products are discussed in advance of the formal presentation of Raymond Williams’ conceptual framework for “structures of feeling” (in Section 2.2), which is factually utilized throughout this entire paper. The reason is that while assessments of superior innovations involve structures of feeling themselves, their assessment criteria, i.e., triple-bottom-line sustainability and models of indigenous stewardship, are more easily seen initially by bracketing out that fact.

2.1. Superior “New and Improved” Wood Products

Sustainably “new” wood products are superior in the sense described above, i.e., offering more benefits and fewer drawbacks than other innovations while lessening or not contributing to climate change. For example, Gejdoš and Hitka [32] propose that new wood products should be highly suitable for human use and promote human health. This is a “new” idea for furniture and wood products—or perhaps simply a “renewed” reminder of earlier calls. Adding another criterion to promote human health in new wood products resonates with advocacy within sustainable development discourse for triple-bottom-line assessments that optimize not only the economic but also the social and environmental benefits of any innovation [1,33,34]. Diaz-Balteiro et al. [35] similarly center their advocacy for circular economies in a multiple-criteria context as well.

This insistence on multiple assessment criteria, such as the suggestion in Gejdoš and Hitka [32], is indispensable given that the amount of attention paid to the economic pillar of sustainable development greatly exceeds the attention given to the social and environmental pillars [1,36,37]. Indeed, a prioritization of the economic pillar generates that characteristic emphasis on financial profit, often to the exclusion or detriment of environmental and social well-being [38,39]. The daily worsening effects of climate change are the most far-reaching impact of this at all scales [29,40]. This economic overemphasis occurs partly because it is ostensibly easier to measure economic sustainability through the proxy of money. Nevertheless, many metrics exist for assessing social and environmental sustainability benefits, e.g., social well-being, convenience, community resilience, justice, biodiversity, and forest health [1,8,41–47]. If these metrics are more challenging to use or standardize, this has to do with comparatively less focus and attention on their development than efforts to measure economic benefits.

Relatedly, the multiple criteria of indigenous stewardship—through socially, economically, and environmentally beneficial collaborations between indigenous people and nonhuman species around resource use [8]—position them as superior to industrialized civilization’s poor global stewardship, its rapacious use of limited natural and human-made resources, non-collaboration with other life on the planet, and a significant contribution to climate change [48]. This highlights the anthropocentric fact that innovative products and processes will primarily, if not exclusively, benefit our species first, rarely with adequate consideration for other life forms [49,50]; for industrialized civilization, viewing trees “as people”, not sources of wood for new wood products, can generate skepticism [51,52]. Partly, this human-centric tendency cannot be avoided. Like any heterotrophic species, human beings must use and consume the things of the world to exist [53]; the question

then is never if but in what way or how we will use those limited natural and human-made things [1,54]. As a check on this tendency, the multiple criteria under indigenous stewardship around the use of the environment, especially in its recognition of nonhuman others [8,54], moderate such use and can enable more sustainable outcomes, even in the current Anthropocene [8].

However, narrowing the focus only to our own species, most indigenous peoples and those still living in primarily agricultural societies are rarely the intended beneficiaries of industrialized civilization's "new" products or technologies; hence, Corn tassel [55] noted, "What is considered sustainable practice by states comes at a high price for Indigenous communities, often leading to the further degradation of their homelands and natural resources" (p. 108). This disadvantageous situation for indigenous and agriculturalist peoples generates characteristically unjust urban/rural and gender divides, global north/south disparities, and the deliberate underdevelopment of "peripheries" by "centers" [56–61]. It is deeply marked by a steeply hierarchical "dominator paradigm" characteristic of, if not integral to, industrialized civilization's use of resources as "life over" rather than "life with" [62,63]. Accordingly, Eisler's [63] alternative and contrasting "partnership paradigm" echoes attitudes and practices within indigenous stewardship that reflect a convivial relationship toward the use of the environment, one oriented toward a convivial "life with" rather than "life over".

Together, triple-bottom-line sustainability and the convivial partnership models of indigenous stewardship offer criteria for a qualitative assessment for determining which new wood products and processes are sustainably appropriate and justified, hence "new". Accordingly, as proposed by Gejdoš and Hitka [32], it becomes not only reasonable but necessary to advocate for "new" wood products with a superior triple-bottom-line advantage over their alternatives. Equally, sustainably "new" processes in their manufacture would further motivate and prioritize their production and consumption over less superior or inferior alternatives.

2.2. A New Sense of the "New"

Space prohibits reviewing in detail all of the positive and negative evaluations that can attach as feelings to the "new" and its counterpart, the "old", e.g., progressive vs. old-fashioned, traditional vs. anarchic, exciting vs. dull, reliable vs. dangerous, cool vs. stodgy, sensible vs. utopian, order vs. chaos, oppression vs. freedom, safe vs. risky, bad vs. good. While quantitative metrics can grade the age of "things" such as trees, stars, and fingerprints [64–66], human experiences of the "new" and the "old" are irreducibly accompanied by a qualitative range of positive and negative evaluative "feelings" about them. These assessments are grounded in what Raymond Williams [67] called "structures of feeling". Most critically, structures of feeling do not describe some humanly universal or merely subjective "emotional response as a central aspect of behavior" [68] (p. 104). Instead, they are produced by, characteristic of, and arise from the cultural conditions in which they occur [67].

The starting point for structures of feeling asks, "How do you feel about that?"—in the sense of, "What is your evaluation of it?"—but then goes on to interrogate more deeply, "What cultural conditions contributed to and generated that evaluative feeling?" Structures of feeling are never merely ideas—in this case, about the "new" and the "old" of wood products—but the ways that people feel, live out, defend, critique, and express those ideas and values in the world. Accordingly, structures of feeling for the "new" will differ across industrialized and indigenous civilizations and can exhibit opposition and resistance to others' structures of feeling when they differ. Recycling, as a part of the new wood product value chain, aptly illustrates Williams' concept.

2.2.1. "Recycling Is Tedious"

Meneses [68] found that "recycling behavior is associated more with positive emotions than with cognitions" [68] (p. 104). In other words, how people feel evaluatively about

recycling can have more decision-making weight than knowledge. Consequently, models of human behavior that assume a know–feel–do cascade can lack explanatory and predictive force [68]; even after people know the right thing to do, they will often not choose to do it. Evaluative feelings often predominate.

Given the documented harmful impacts of new resource extraction for industrial processes as an engine of climate change, industrial recycling is and should be an obvious, rational, and widely adopted alternative to extracting new inputs. Indeed, the environmental advantages of recycling old industrial inputs are unambiguous in many sectors (including wood), and processes are continually refined to do so more efficiently and widely [69–72]. Similarly, circular economies offer a novel modification to production value chains [35]. Despite the clear and more sustainable advantages of these approaches, resistance to them and their limited implementation persists in developed industrialized nations, with recycling rates in “developing economies with a minimal industrial base . . . close to 0%” [69] (p. 12).

Arguments against recycling are often ostensibly economic and logistic: recycling industrial inputs may not be cost-effective relative to extracting otherwise plentiful raw materials [73,74], may be “tedious and very often even not possible” [75,76] (p. 5, emphasis added), or too unevenly distributed globally, especially in regions aspiring to become industrialized civilizations [69,72]. That these cited overheads and difficulties are embedded within a calculus of profit maximization makes the argument and approach inferior to sustainable strategies that have triple-bottom-line environmental, social, and economic benefits [77]. These resistances disclose a characteristic disconnect where highlighting the apparent losses to economic profit from recycling pushes into the background any offsets and gains in environmental and social sustainability.

Notably, developing industrialized societies “have recycling rates close to 0%” [69] (p. 12), suggesting that the extraction of new resources is not an unfortunate “bug” in those contexts but an integral feature. This situation would also have been the case for the now-industrialized nations categorized as developed from the eighteenth century onward. Therefore, this integral element of industrialization predicts that the habit of new resource extraction does not vanish upon reaching developed status, as has indeed been the case. Both then and now, the argument that the economics of nascent industrialization precluded anything like environmental stewardship or recycling disregards the consequently severe opportunity costs to the local environment and social well-being of humans and nonhumans [25] and their contribution to climate change [78,79].

Accompanying these ostensibly economic issues, recycling is also an emotionally dull and tedious activity [68,75,77,80] that involves the reuse of “old” materials rather than the use of “new” ones. That it is easier and takes less time to “take” rather than “ask” also figures into the structure of feeling for industrialized civilization’s entitled and licentious dominator paradigm about the use of the environment. Fundamentally anti-indigenous and unsustainable [1,62,81], this structure of feeling explicitly embodies a deprecation of women, non-European peoples, and Nature (Mother Earth) broadly. The very notion of a “resource” as something inert and there for the taking without asking is itself a deliberate disregard for the “moral status” and rights of nonhuman life forms [50,54].

Drawing attention to an “emotional” factor in this structure of feeling—that recycling is boring and tedious—may seem gratuitous. However, few would deny the “feeling of excitement” and motivation inspired by the prospect of “making a profit.” Moreover, it is not an emotional feeling itself but the structures of feeling—as the cultural conditions that give rise to emotion—that matter in contrast with other cultural conditions that do not generate such emotional responses. Precisely this structure of feeling makes the economic pillar of sustainability more compelling, attractive, and thus far more often prioritized over sustainability’s environmental and social pillars. Understood in this light, it becomes quite clear why a new feeling and sense of the “new” is needed if commitments will shift away from economic-only or dominator-paradigm approaches toward producing “new” innovations and sustainably “new” wood products.

2.2.2. The Good Old New

This section more deeply characterizes industrialized civilization's structure of feeling around the "new" to stage an alternative. Thus, if we can now meet the advertiser's slogan "new and improved" with a reflexive skepticism and feeling of doubt, nevertheless, there is still something in the "new" itself that can evoke a sense of excitement and promise [82]—if not for a new wood product specifically, then for new processes for producing such products [83–85]. This excitement and promise arise out of industrialized civilization's structure of feeling around the new. Indeed, some of the appeal of technocratic optimism is that it allows people to participate in efforts to provide "new and improved" innovations that may solve the world's problems, including the impending climate change disaster that technocratic optimism helped create [24].

This excitement and promise span the entire value chain as new products, approaches, processes, uses of recycled or non-recycled wood, and new production techniques with socially beneficial downstream effects, such as better human safety in workplaces [86–89]. A cynic might try to understand these many human activities—many of them practiced by readers of this journal—as motivated only by pragmatism or venality for the sake of a paycheck, for material wealth, or even simply out of greed. However, an analysis that disregards or denigrates the curiosity, enthusiasm, industriousness, and even aspirational "love" for the world through hope for its potential improvement in these activities is an inferior analysis compared to one that utilizes the social and global/environmental aspects of such activity as criteria. This more generous analysis frames industrialized civilization's structures of feeling for the "new" in its culturally specific possibilities and pathways for socially making the world better through sustainably new products and processes. Such vision embraces even a "utopian" hope for restoring Earth's originally Edenic environment for future generations through climate-smart and green technologies.

Historically, industrialized civilization's structure of feeling for the "new" emerges out of the Enlightenment's Romantic emphasis on *ex nihilo* "originality" [90,91] and its claim and desire to escape from all previous history, especially religious history and ignorance, through scientific knowledge and technology [92,93]. It begins with the intuition that the "new" is always better than the "old"—an ascription of inherent superiority and goodness that makes the "newer" and its historically more recent Euro-American cultures superior to every case of the "older" and its historically more ancient indigenous cultures [25,94–97]. This illuminates why this structure of feeling helped eventuate what Saree Makdisi [98] calls industrialized civilization's "romantic imperialism", especially in the United States, which was "created for the sole purpose of escaping history, [as] a place that has purged itself of all negativity, and whose citizens live life in a perpetual [ahistorical] present" [99] (p. 84). Its romantic emphasis on individualism is also problematic. Bateson [100] in 1972 invoked a century of empirical evidence to argue that when an individual or a family:

sets to work with a focus on its own survival and thinks that that is the way to select its adaptive moves, its 'progress' ends up with a destroyed environment. If the organism ends up destroying its environment, it has in fact destroyed itself. And we may very easily see this process carried to its ultimate *reductio ad absurdum* in the next twenty years" [100] (p. 457, emphasis in original).

This structure of feeling also amplifies a masculinist dominator paradigm [101] with characteristic negative attitudes towards women, indigenous people, and Nature (Mother Earth) as brute matter [81]; hence, the entirely representative opinion, "The aim of true philosophy is to teach man how to subjugate matter to the intelligence of mind" [102] (p. 438) analogizes "man", "mind", and "intelligence" as properly subjugating an inferiorized women, Nature, and indigenous peoples [81]. This negative emphasis contrasts a complementary positive emphasis embodying all of the curiosity, enthusiasm, industriousness, and even aspirational "love" for the world through a hope for its potential improvement in the energy and archetype of the "eternal boy" [103]—exemplified by those "sons of industry" who are "altogether emancipated from the trammels [and superstitions] of the astrologer

and the alchemist of a previous age" [102] (p. 438). Only comparatively recently has the potential and promise of the "girl" received increased emphasis [104,105]. However, as Desai [105] demonstrates, this is merely a new and improved strategy for reproducing existing gender inequalities—more "old wine in new bottles".

As such, to the earlier picture of a train engine pushing cars over a cliff can now be added the youthful exuberance and irresponsibility of an eternal boy and "son of industry" doing the pushing. The specifically male emphasis of this is not an empty metaphor or gesture; Anshelm and Hultman [106] document how calls for climate change triggered threats to a "masculinity of industrial modernity" (p. 84). The extraordinary vitriol unleashed at the girl climate activist, Greta Thunberg, is integrally related [107]. In contrast to this masculinist dominator paradigm, indigenous structures of feeling for the "new" can offer less steeply hierarchical, more partnership-oriented social paradigms [63] that are demonstrably better suited for resisting climate change.

2.2.3. Conviviality as Life with, Not Life Over

As an alternative to industrialized civilization's structures of feeling for the "new", indigenous structures of feeling will generate different affective commitments and responses. For example, that the appearance of "new" trees in a forest can represent a reappearance of departed trees motivates more long-term indigenous stewardship of the forest space and less short-term, unsustainable harvesting [51]. A "new" tree thus appears not as a "thing" but as a part of a history and relationship with the whole community of local humans and nonhumans around it. The animism this involves represents "a form of socialization that creates a lasting set of behaviors between generations, [where] the cohesion of individuals occurs based on their awareness of belonging to the same common ancestor" [108] (p. 8). Importantly, these histories, cohesions, and relationships are "true" whether one imagines trees are departed ancestors or not; this is no less a "story" that indigenous people tell themselves as our own story that trees are just "things" we can consume at will [50]. That indigenous "stories" yield more sustainable outcomes than ours argue their superiority in an era of climate crisis.

Relatedly, the indigenous structure of feeling for the creation of a "new" wooden object can often have reality and desirability only to the extent that its creation repeats a divine figure's or culture hero's original creation of that object *ab illo tempore* ("in time immemorial") [109]. In an authentic cultural sense, this structure of feeling valorizes a re-creation rooted in adapting existing practices to any current endogenous or exogenous pressures [8]. While Frye [110] similarly noted that originality is genuinely accessed only by returning to the beginning, to recreate a "new" wooden object as exactly alike as thousands of previously produced examples may "feel" more like automated production [111] than something "new". This illustrates precisely the differences in "feeling" involved.

Consequently, rather than subjugating, dominating, or simply using newly encountered human and nonhuman others deemed inferior, indigenous structures of feeling can generate collaboration with human and nonhuman animal and plant species recognized as fellow "old" life forms currently appearing in "new" guises [8,49,112]. Similarly, rather than industrialized civilization's pretense of an escape or break from—or worse, a denial of—its violent history that conceives of "originality" only in terms of "unprecedented" or "never before seen," indigenous structures of feeling can recognize the "old" in a "new" form in the present [113], not for a regression into the past but as an adaptation and continuity with the past that Rogers [114] calls reinvention.

These contrasts all rest on a convivial attitude of "life with" rather than life over that grounds more sustainable decision-making around the use or non-use of otherwise limited natural and human-made goods in the world. It is not a prohibition on use outside of taboos but a moderation of use that better maintains the commons and more sustainably recognizes human survival as part of life's survival generally. It expresses an attitude or stance [115] toward more just interactions with others, both human and nonhuman, recognized as kin [8,49,54,112]. As an example of "new wine in old bottles", it describes

how “new” manifestations of “old” indigenous structures of feeling adapt and evolve to changing conditions in the present.

3. New Wine in Old Bottles

3.1. Old Bottles

Recognizing that changes to industrialized civilization’s modes of production and consumption are needed to stop its engine from pushing more species and people, and finally itself, over the brink of climate disaster additionally requires some means for assessing when changes made are genuinely “new” alternatives to the existing conditions and not simply more of the same (“old wine in new bottles”). If it is clear that we can ill-afford such “old wine in new bottles”, how to get “new wine in old bottles” remains challenging. As the parable insists, “No man puts new wine into old bottles; else the new wine will burst the bottles, and be spilled, and the bottles shall perish” (Luke, 5.37). Unfortunately, this parable is directed at individuals, which Bateson [116] has already made clear is the wrong unit of survival for humanity in the face of its increasing destruction of the environment. Redirecting the parable toward a non-individual, more broadly social scale [117], it is clear that the adoption or diffusion of any new wine of innovation depends critically on its social reception.

It is not then that the old bottle of “tradition” cannot withstand the potency of the new wine of “innovation”—the Menominee people’s example makes this clear—but that a different society is needed to accommodate or assimilate the innovation. This will be a society distinguished precisely by a “new” or modified structure of feeling able to recognize the superiority of that sustainably “new” innovation—a society, for example, where recycling is exciting not dull, fun not tedious, and emotionally motivating toward discovering ways to reuse existing materials to recreate products while also making the use of newly extracted resources distasteful. If overnight people became as excited about recycling as maximizing an enterprise’s profit, then the behavior would almost certainly change overnight as well.

Because structures of feeling are rooted in the cultural conditions that produce them, any such “overnight” change of heart requires a change in the underlying cultural conditions. To the extent that the Menominee people have evolved a convivial structure of feeling for the “new”, the new wine of their adapted old bottle of traditional indigenous forest stewardship currently yields superior sustainability measures of forest health compared to surrounding non-indigenous lands [8]. This contemporary “new” articulation of “old” traditional practice, which grew out of the Menominee people’s engagement with U.S. federal laws seeking to limit the tribe’s sovereignty [118], is precisely an image of “new wine in old bottles” and the sustainably new.

This also illustrates how every manifestation of the new must always arise from a new reconfiguration of preexisting old elements. Sometimes, this hybridization of preexisting elements will register on the prevailing structures of feeling as a “difference that makes a difference” [100] (p. 453), as something that “feels” genuinely groundbreaking, game-changing, and new—as a paradigm shift that changes the world as we know it [119]. Nothing ensures that the intoxicating new wine of these changes is inherently desirable, good, or superior. Still, it marks a species of innovation offering a genuine alternative to the prevailing “new and improved” and its simply more of the old and added impetus to the current drivers of climate change.

3.2. New Wine

One way to deliberately cultivate this new wine of innovation is by borrowing Nature’s example and hybridizing or reconfiguring dissimilar elements within overlapping domains [120]. For example, “maximally creative” [121] ecological novelty can arise where highly dissimilar environments intersect [122,123], i.e., as amphibians where land and sea intersect and euryhaline species where salt and fresh water mingle in estuaries. Such “edges” as zones of innovation are not only ecological [120,124] but also spatial (foyers,

porches), temporal (adolescence, menopause), cultural (creoles, syncretisms) [124], and transhuman (nonhuman and human collaborations) [8,112]. Simply the basic proposal itself to intersect sustainability's economic, social, and environmental pillars in project assessments and decision-making is an elemental example. For new wood products specifically, "a more sustainable material compared with conventional boards" [125] (p. 2740) was generated by hybridizing ammonium lignosulfonate and wood-fiber composites.

As a matter of design, deliberately staging intersections of highly dissimilar domains reliably opens creative pathways to more innovative designs on the same principle that underscores values such as biodiversity [15,126], nonexclusive multicultural participation [44,127,128], brainstorming and conversation [129–132], and pluralistic approaches in general [133–137]. This is not advice to "think outside the box" but rather a recommendation to change design practices by deliberately placing in dialogue dissimilar domains to generate something novel and unpredictably "new". As noted above, nothing ensures that the outcomes from this design practice must be inherently good, desirable, or superior. Still, they often embody genuine alternatives to otherwise merely "new and improved" outcomes. Assessing these novel innovations by the earlier criteria will determine whether they are sustainably appropriate and justified.

4. Conclusions

The preceding describes qualitative criteria as a rubric for assessing sustainably superior new wood products and processes over an entire value chain—specifically, by applying triple-bottom-line sustainability framed by convivial models of indigenous stewardship for decision-making around the use or non-use of the environment. The rubric affords recognition and policy advocacy for the type of superior new wood furniture proposed by Gejdoš and Hitka [32], for the collaborative indigenous stewardship practiced by the Menominee people in Wisconsin [8], and for pragmatically more sustainable national energy policy for industry lensed through the indigenous rubric of take only what you are given [53].

At its most general, the assessment identifies superior sustainably "new" wood products and processes that mitigate or do not worsen climate change effects. It is therefore appropriate and recommended for decision-making and policy advocacy around production and consumption at all organizational, national, and international scales and over entire value chains, from sourcing and design to production, distribution, and even consumption, recycling, and circular economics. Buy-in from leadership for its use is essential. Equally, that assessments of endeavors' sustainable appropriateness and justification can be made at every step of value-chain decision-making and practices involves reprioritizing commitments of time and other resources.

Once again, this requires all levels of leadership, from small and mid-size enterprise managers to national policy setters, to become willing to "risk" limited organizational resources for otherwise less obviously measured social and environmental gains. This requires a different structure of feeling, one where the social and the environmental are as compelling and attractive as the economic. However, changes to the social conditions underlying structures of feeling rarely occur in isolation or spontaneously. For this reason, increasing the diversity of participation around decision-making, specifically with people who still live a more convivial structure of feeling about the use of the environment, affords one way to generate sustainably "new" approaches.

This holds as well for future research to investigate what elements and parameters of intersecting dissimilar domains better generate superior innovations. The many contemporary and historical examples of indigenous "new wine in old bottles" offer much to learn from and adapt. Insights from such work would add considerably to solution designers' ability to discover genuinely paradigm-shifting value-chain innovations and processes for ameliorating and reversing climate change.

Lastly, future work could elaborate a more detailed or fine-tuned qualitative rubric for sustainably new wood products and innovations generally. Potentially, a quantitative

instrument could be developed. However, caution must be exercised on that front, as the paradigmatically “new” by definition does not fit on any existing scale.

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