

With the endorsement in 1987 of the Brundtland Report, *Our Common Future*, the expression 'sustainable development' was launched into the global environmental lexicon alongside the following definition thereof: "to ensure that [development] meets the needs of the present without compromising the ability of future generations to meet their own needs."<sup>1</sup> Sustainable development now dominates environmental discourse, shaping our conception of environmental problems and the role of architecture therein.<sup>2</sup> Its success in this regard is due largely to the ways in which it contrasts the failed environmental approaches of the 1960s and 1970s.

It presents a positive sum instead of zero sum approach to environmental problems by equating pollution with inefficiency and thus with business opportunity.<sup>3</sup>

It supports a fundamental belief in the problem-solving capacity of modern techniques and skills of social engineering, while carefully avoiding any association with progress and its negative connotations.<sup>4</sup> It draws upon and reinforces existing modernist policy instruments such as expert systems and science, without relying entirely upon them for legitimacy.<sup>5</sup>

In these ways, sustainable development is essentially a form of reflexive modernism that substitutes 'sustainability' for the now tainted term 'progress' in the language of the Modern Project<sup>6</sup> as a self-evident value to be asserted without need for further proof or demonstration.<sup>7</sup> Although few would argue against the aim of sustainable development as defined in the Brundtland Report, its value claim deserves further scrutiny.

Whether something is sustainable or not provides no indication of its value. Racist societies, sexist societies and ruthless regimes may be sustainable, but obviously should not be. Clearly, before sustaining something, one should determine whether it is worth sustaining. 'Sustainability' necessarily demands justification in terms outside of its own. The inherent value of 'development' is equally as difficult to justify. Proponents of sustainability at an international level are quick to affirm the right of developing nations to increase their own material well-being. It is no coincidence, then, that in their pairing the two are not presented as co-equal terms. Rather, 'development' remains the key trope to which 'sustainable' is applied as a modifier. Despite this emphasis, underlying most environmental rhetoric<sup>8</sup> is the fundamental belief that developing countries simply cannot follow the developmental path taken by currently developed countries without initiating an environmental apocalypse. Development must be channelled in an appropriate direction, namely, in the pursuit of sustainability. If, however, sustainability cannot have substantive value, it is necessarily incapable of suggesting any direction. Recent similar attempts to assert that social justice, economics and sound environmental policy are mutually reinforcing concerns ignore the simple fact that developed nations which currently enjoy the greatest levels of social justice and material well being consume in orders of magnitude that far surpass developing nations, making them the least sustainable societies of all, and particularly so if displaced pollution is taken into consideration. If the most socially progressive<sup>9</sup> and economically developed nations are thus, by definition, the most environmentally damaging and least sustainable societies of all, then social justice, development and the environment

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<sup>1</sup> World Commission on Environment and Development (WCED), *Our Common Future* ('The Brundtland Report'), (New York: Oxford University Press, 1987), p.43.

<sup>2</sup> As evidence of this we rely on the prevalence of the rhetoric of sustainable development in various architecture school programmes (consider Yale's M.Arch/M.E.M. program, Yale School of Architecture courses such as *Sustainable Design: Larger Issues and Detailed Methods* and *Sustainable Architecture, Today and Tomorrow: Reframing the Discourse*, Harvard's 2009 Architecture and Sustainability: Integrating Built and Natural Environments program, The Center for Sustainable Engineering, Architecture and Art - Materials, Manufacturing and Minimalism at The Cooper Union, or the Integrated Digital Design Environment for Sustainable Architecture involving The Cornell Center for a Sustainable Future and the Faculty of Architecture), in most architectural publications, and on its translation into such prominent institutional instruments as the Green Building Council and the LEED program, to name but a few examples.

<sup>3</sup> See Tarla Rai Peterson, *Sharing the Earth: The Rhetoric of Sustainable Development*. (Columbia: University of South Carolina Press, 1997), p. 17.

<sup>4</sup> See Peterson, page 22.

<sup>5</sup> See Peterson, pages 22-31.

<sup>6</sup> A belief in progress through technological development and the application of rationality that relies upon scientific legitimation.

<sup>7</sup> See John Dryzek, *The Politics of the Earth: Environmental Discourses*, (New York: Oxford University Press, 1997), p. 123.

<sup>8</sup> A notable exception here would be the Promethean environmental discourse - see Julian Simon, *The Ultimate Resource*, (Princeton: Princeton University Press, 1981).

<sup>9</sup> As in much of the rhetoric of sustainable development, the term 'socially progressive society' is used here loosely to refer to participatory democracies in which individual rights are guaranteed, and in which states advocate racial and religious tolerance.

are not, in fact, inherently reinforcing, and instruments are required with which to determine and secure an appropriate weighting of each. If, as many suggest, we are facing an environmental catastrophe, the significance of these instruments cannot be overstated. Whether such instruments can be developed, applied and justified within the existing discourse, however, remains to be seen. When faced with questions of value that resist quantification in economic or physical terms, the discourse is at best confused, more often, silent.

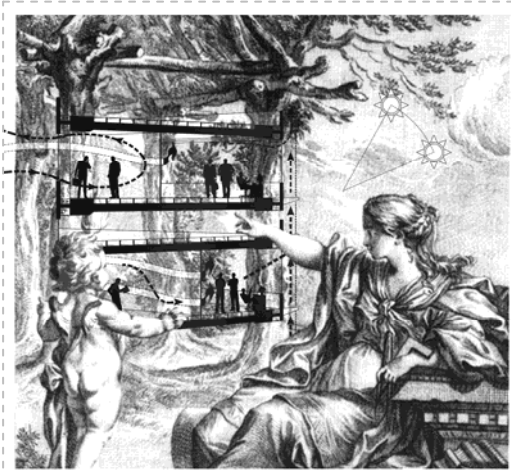


Figure 1. *Legitimation Reconsidered.*

With its self-evident values so dismantled, sustainable development falls subject to those criticisms which previously placed the Modern Project's notion of progress into disrepute. As the application of scientific objectivity to its own undesired ends, sustainable development maintains a preference for scientific objectivity in thought and for the immediately practical over the qualitatively preferable, while presenting technology as a neutral and transparent vehicle.

Architecture has entered the environmental debate largely on similar terms, concerning itself primarily with the application of technological systems to environmental symptoms. These 'sustainable design' approaches are prescriptive approaches inasmuch as they seek to develop means to prescribed ends. Unsustainable designs are therefore seen as having failed to apply the logic of an objective scientific inquiry correctly, or as having failed to identify the true scope of concerns to which an objective scientific inquiry applies.<sup>10</sup> With this realization, disturbing questions arise.

As a means to ends, prescriptive solutions are afforded value proportionate to their ability to produce desired results. Assigning value on this basis, however, necessarily demands similar evaluation of any result as the means to a further end, initiating a chain of value deferral<sup>11</sup> that leads to the ultimate question of environmental performativity; 'For what ends is the environment to be saved?' As tempting as it may seem to argue for sustainable development as a matter of self-preservation, preservation necessarily also demands justification in terms outside of its own boundaries. In failing to provide an objective justification for our concern for future generations, arguments for self-preservation also necessarily pit the demands of self-preservation against those aspects of the environment such as old growth forests, endangered species and unique ecosystems that are not necessarily matters of our ultimate survival. As Jean-François Lyotard has noted, in the performative valuation of scientific practices one is ultimately faced with the final question of performative legitimation: "What is your 'what is it worth?' worth?"<sup>12</sup>

Prescriptive architectural solutions also reinforce current prevalent and misleading perceptions of technology as a neutral and transparent form of agency. Examined cursorily, technology appears to manifest itself in two forms: technology as object (a device, apparatus, or even abstract system), and technology as activity (the design, construction and application of the device, apparatus or system). As an object, technology appears neutral (things in themselves are neither good nor bad) and as means to a prescribed end, technology (as object or activity) appears transparent.

As Aidan Davison has argued in *Technology and the Contested Meanings of Sustainability*, this instrumental perception of technology<sup>13</sup> so dominates our current perceptual field that we are inclined to accept it as the entire

<sup>10</sup> The depletion of the ozone layer, for example, can be understood as the result of an incomplete scope of consideration: a failure to connect CFC's and HFC's with ozone layer depletion, and subsequently, with increased exposure of the earth to undesirable wavelengths of light. Similarly, earlier buildings raised under the banner of sustainable development that concerned themselves primarily with the development and implementation of energy efficient mechanical systems and envelopes are understood today as having failed to recognize and address a variety of concerns, from the embodied energy content of their components, and the implications of their siting for the biodiversity of regions, to (more recently) the ease with which they could, at some future date, be dismantled for reuse elsewhere. In both cases, the environmental shortcomings of previous approaches are addressed by applying an objective line of scientific enquiry to a broader range of issues, thus allowing future environmental problems and remedies to be constructed in the same manner.

<sup>11</sup> Reducing a building's footprint, for example, may be justified in terms of maintaining the biodiversity of a region, but then the maintenance of biodiversity demands further justification on similar objective grounds.

<sup>12</sup> Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, (Minneapolis: University of Minnesota Press, 1984) p. 35.

<sup>13</sup> See Aidan Davison, *Technology and the Contested Meanings of Sustainability*, (New York: State University of New York Press, 2001), p.24

picture, divorcing technology “from the essence of human knowing and experience,”<sup>14</sup> and subsequently disregarding the ways in which “technology is constitutive of our experience and thereby has substantive social character in its own right.”<sup>15</sup> In focusing solely on technological responses to symptoms of the imbalance, current environmental design practices typically fail “to investigate how technologies, woven as they are within the fabric of our quotidian practices, *express, shape and perpetuate* our philosophical commitments.”<sup>16</sup>

This appearance of neutrality and transparency is further reinforced by the quest for increased performativity; a desire for “ends unencumbered by means.”<sup>17</sup> Attendant increases in the ease and efficiency of technological solutions draw to the foreground the results of their application, while causing their means to further “withdraw from our immediate bodily experience.”<sup>18</sup> The resulting dissociation of means from ends portrays technology as a vehicle of human agency and obscures its true position as the very “essence of human agency,”<sup>19</sup> effectively removing it from the realm of moral considerations. As Davison notes, when faced with this distortion we fail to recognize that technology “is as ambivalent, as unpredictable, as honourable and as depraved as are human agents themselves.”<sup>20</sup> Architectural responses that simply apply technological solutions to environmental symptoms are thus at best questionable, and at worst, counter-productive. By ignoring issues of moral orientation while reinforcing misleading perceptions of technology, they reinforce the very conceptual framework that produced the environmental imbalance, and are thus reduced to innovations that serve primarily to maintain existing techno-systems. In some cases, these innovations even become forms of ‘reverse adaptation’ wherein human ends are adjusted to suit resulting available means.

Attempts to question the conceptual framework itself are generally dismissed on one of two grounds. In the first case, technological ‘progress,’ presented in the guise of neutrality and transparency, is posited as the subject of autonomous human control and thus upheld as serving our true desires. In the second case, technological ‘progress’ is presented as the inevitable outcome of a form of technological evolution<sup>21</sup> which, although created by humans, remains somehow beyond our direct control. Both cases echo the ontological shift predicted by Lyotard, as the question “How shall I act?” replaces the question ‘How should I think?’<sup>22</sup> Removed from any consideration is the fundamental understanding that in developing, shaping and applying our tools, our tools and applications simultaneously develop and shape our own perceptions. This reciprocity<sup>23</sup> is of further significance to architecture when considered in light of the writings of Justus Buchler.

In *Towards a General Theory of Human Judgement*, Buchler contends that humans assume their positions in the world through judgements made in one (or more) of three basic forms; assertive judgements, which are consciously formulated and articulated through rhetoric; active judgements, which mark the translation of assertive judgements to the physical world; and exhibitiv judgements, which are inherently interpretive in nature and serve to reveal something more than, or contradictory to, those judgements expressed assertively and/or actively.

All technologies can be seen to embody all three forms of judgement simultaneously. As a specific means to a prescribed end, a tool is an assertive judgement. In realizing the prescribed end, a tool becomes an active judgement. Most significantly, however, in necessarily embodying unconscious (or conscious but unstated) evaluations of what is considered worth doing (and how what is worth doing should be done), all technologies are clear forms of exhibitiv judgement.<sup>24</sup> Through a critique of exhibitiv judgement, it may thus be possible to articulate the more immediate

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<sup>14</sup> Davison, p.96.

<sup>15</sup> Davison, p.96.

<sup>16</sup> Davison, p.94.

<sup>17</sup> Davison, p.110.

<sup>18</sup> Davison, p.110.

<sup>19</sup> Davison, p.101.

<sup>20</sup> Davison, p.101.

<sup>21</sup> Technological evolution here is meant in the true Darwinian sense.

<sup>22</sup> Lyotard, p.72.

<sup>23</sup> Effectively the reciprocity of *technē* and *logos*.

<sup>24</sup> A hydroelectric dam, for example, is born of, and manifests, the judgement that electricity is worth producing. Through its impact on surrounding ecosystems, however, such a dam also embodies judgements about the value of those ecosystems affected by the dam relative to the value of the electricity generated by the dam.

assertive and active judgements of any specific technology by “putting it in touch with objects, ideas or relations that were not initially part of the judgement,”<sup>25</sup> thus revealing “more about the judgement by indicating new relations and possibilities inherent in it.”<sup>26</sup>

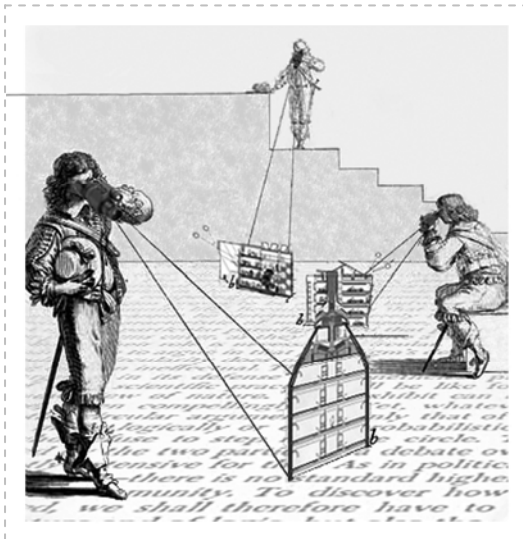


Figure 2. Cartesian Perspectivalists Analyzing Air Flow Diagrams.

It is through the embodiment of these three forms of judgement that the informing nature of tools arises. In developing any tool, “certain potentialities of doing, making and saying and certain potential relations to other things are excluded from the (maker’s or user’s) future, while others are included in it.”<sup>27</sup> This conception of tools challenges the perceived neutrality of technology while further suggesting that the notion of self (or of community) is not fixed, but rather is a dynamic and changeable construct that may even ultimately remain indeterminate or incomplete.

If this conception is correct, then arguments for our autonomy over technology or for the inevitability of technological determinism become untenable.

With respect to architectural design, this realization is particularly instructive. If architecture chooses to enter the discourse of sustainable development by concerning itself primarily with the application of technological systems to the symptoms of the environmental imbalance,<sup>28</sup> then architects, in choosing to limit our

engagement with the ‘environment’ to this level, necessarily and effectively evaluate all other possible engagements as merely trivial, if not entirely irrelevant.

This is not to suggest, however, that tools, as means to ends, necessarily trivialize our relationship with that which we engage through their use. On the contrary, by exploring the informing nature of tools as we employ them, it may be possible to challenge and alter the potentialities that we currently open and close to ourselves, and, in so doing, to explore the nature of our current understanding, and suggest the possibility of new understandings. Such exploration is not limited to the physical means by which buildings are manifested, but rather would extend to include the very means by which different architectures are conceived, discussed, developed and represented. For each bias so uncovered, alternatives obviously exist that are capable of opening currently closed and unimagined ways of reframing and conceptualizing underlying and fundamental issues. Similarly, with respect to architectural representation, we can look to a process which the architectural theorist, Dalibor Vesely, describes as a situatedness of representation in the communicative space of culture.<sup>29</sup> This situatedness is contingent upon a ‘local-technology’ of self-reflexive or heuristic action, wherein the challenge to architectural representation takes place through a fundamentally creative and individual act which re-reveals the qualities of everyday life. When it comes to representing architecture, the challenge remains to situate the representational technology within a limited set of creative principles, so that when it comes to a form of representation like parametric architecture, we’re mindful of the implications of generating architecture through script.

Through critical analysis, it is thus possible to dismantle the central claims of architecture’s various forays under the banner of sustainability into the realm of rational objectivity, along with the various justifications routinely advanced on its behalf. As Richard Coyne has noted,<sup>30</sup> however, with our modern enframing<sup>31</sup> we often lose sight of the fact that critical analysis is itself a technology that encourages certain potentialities while discouraging others.

<sup>25</sup> Justus Buchler, *Toward a General Theory of Human Judgement*, (New York: Dover Publications, 1979), p.95.

<sup>26</sup> Buchler, p.95.

<sup>27</sup> Justus Buchler, *Nature and Judgement*, (New York: Grosset and Dunlap, 1955), p.114.

<sup>28</sup> Previously raised issues surrounding legitimation will be ignored for the moment.

<sup>29</sup> See Dalibor Vesely, *Architecture in the Age of Divided Representation*, (Cambridge: MIT Press, 2004), p. 386.

<sup>30</sup> Richard Coyne, *Designing Information Technology in the Postmodern Age: From Method to Metaphor*, (Cambridge, Mass.: MIT Press, 1995), p. 82.

<sup>31</sup> Enframing is intended here in the Heideggerian sense - see Coyne, p. 127.

For its justification, critical analysis (like sustainable development) relies upon certain 'self-evident' concepts whose intrinsic value it asserts, requiring no further demonstration thereof. The ability of such things as logic and rationality to speak of value and thus suggest what is worth doing or how one should think, however, is clearly as questionable as that of either sustainability or development itself.<sup>32</sup> Sustainable development, though, is not simply a textual argument. Viewed more broadly as a discourse, it is an "ensemble of ideas, concepts and categorisations that are produced, reproduced and transformed in a particular set of practices through which meaning is given to physical and social realities."<sup>33</sup> In considering this broader notion of discourse and its implications for architecture, we draw on the writing of American linguist and discourse analyst James Gee.

Beyond the notion of discourse as 'language in use' or 'rhetorical strategy,' Gee advances the notion of Discourses (capitalized for distinction) as "ways of behaving, interacting, valuing, thinking, believing, speaking and often reading and writing that are accepted as instantiations of particular roles (or 'types of people') by specific groups of people."<sup>34</sup> Such Discourses, Gee contends:

are always embedded in a medley of social institutions, and involve various 'props' like books and magazines of various sorts, laboratories, classrooms, buildings of various sorts, various technologies and a myriad of other objects...Think of all the words, symbols, deeds, objects, clothes and tools you need to co-ordinate in the right way at the right time and place to "pull off" (or recognize someone else as) being a cutting-edge particle physicist or a Los Angeles Latino street gang member or a sensitive high-culture humanist (of old)...<sup>35</sup>

Viewed as such, architectural Discourse is not limited to texts, representations and rhetoric, but rather extends to the influence that architecture in its many aspects<sup>36</sup> exerts over (and suffers through) the ways in which we apprehend our world. It assumes the expanded form of what Gee has termed 'Conversations among Discourses.' As Gee explains:

...the word 'conversation'... can be misleading. We tend to think of conversations as 'just words.' But the sorts of conversations I am talking about involve a lot more than words; they involve, in fact, Discourses. It is better, perhaps, to call them "Conversations" with a "big C," since they are better viewed as (historic) conversations between and among Discourses, not just among individual people. Think, for example,... of the long running historic Conversation between biology and creationism, or between the Los Angeles police department and Latino Street gangs.<sup>37</sup>

As architecture is arguably a primary means by which we negotiate relationships between the human realm and all others (and thus shape our conceptions of these realms), the role of architecture in environmental discourse, when regarded as a Conversation, extends beyond the application of technological solutions to quantifiable problems, to the very shaping of our conception of the environment and thus of environmental problems and appropriate remedies. In this regard, its affinity with Buchler's argument concerning the usefulness of exhibitiv judgements in provoking new understandings is remarkable.<sup>38</sup> When combined with the theory of discourse coalitions and 'story-lines' developed by Maarten Hajer, the significance of architectural Discourse for environmental issues is greater still.

Noting that common stances on specific environmental issues are typically held by collections of individuals and groups with vague, contradictory and unstable value positions, Hajer convincingly argues that such stances are more properly regarded not as single discourses but rather as sites of discourse coalitions. These discourse coalitions, he contends, are held together not in spite of, but by virtue of a number of rather vague story-lines; narratives on material and social reality through which elements from many domains can be combined, providing actors with a set of symbolic references that suggest a common understanding, and thus offer the discursive closure necessary to initiate action.

If understood in this way, as a broader discourse than the textual concerns of critical analysis, the perception of 'sustainable development' as a rational approach based on stable values recedes from view, and the perception of the

<sup>32</sup> Consider, for example, the ethical implications of such recent technological developments as Nexia's Biosteel - a fibre developed for the manufacture of flak jackets that is produced from the milk of goats implanted with spider genes.

<sup>33</sup> Maarten Hajer, *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*, (New York: Oxford University Press, 1995), p.44.

<sup>34</sup> James Gee, *Social Linguistics and Literacies*, (New York: Falmer Press, 1990), p.viii.

<sup>35</sup> James Gee, *An Introduction to Discourse Analysis*, (New York: Routledge Press, 1999), p.18.

<sup>36</sup> As theory, cultural history, physical artefact, political embodiment and organizational device, to name but a few.

<sup>37</sup> James Gee, *An Introduction to Discourse Analysis*, p.35.

<sup>38</sup> See page 4 of this essay.

discourse for which it is commonly criticized emerges: sets of confusing and sometimes contradictory statements made and practices undertaken by various actors and groups who themselves hold vague, contradictory and unstable value positions. In this regard, it is arguable that sustainable development offers its greatest potential, for although the notion of discourse coalitions surrounding story-lines may be applicable to any number of situations, it is of particular use when applied to environmental issues in a postmodern context.

As the scientific, social, political and economic complexity of the environmental concerns we face increases, our ability to grasp them is progressively fragmented among ever growing numbers of areas of expertise. With the demise of the grand narratives in the postmodern age, our ability to move forward through judgement is equally confounded by our increasing awareness of values as socially constructed, contingent, multivalent, changing, and even conflicting. In the face of such fragmentation, the shallow and ambiguous narratives of story-lines provide the discursive cement required to create communicative networks among actors with different, or at best overlapping, perceptions and understandings by suggesting unity in the bewildering variety of separate component parts of the problem faced. Those aspects of such story-lines that are subject to critical analysis become less significant than their discursive affinities - those separate elements that, through cognitive semblance, suggest they belong together. In this manner, the Brundtland Report's definition of sustainable development, though so ambiguous as to necessarily frustrate any practical application, retains a genuine appeal.

Through the suggestion of new narratives and discursive affinities within discourse coalitions, it may thus be possible to alter existing cognitive commitments and, in so doing, to influence the values and beliefs of actors, opening up possibilities for change and for new potential roles. The development of new discursive affinities thus becomes an important form of agency, suggesting possibilities for architecture within the discourse of sustainable development that surpass its current and limited concern with refining existing technosystems, a concern that serves largely to prolong the Modern Project while reinforcing the separation of humankind from nature, promoting the quantitative over the qualitative, and denying the agency of technology.

Though the above may indicate the usefulness (if not, in fact, the necessity) of architecture in formulating and addressing environmental questions that systems based in rational objectivity<sup>39</sup> cannot possibly speak to, it offers no useful guidance in the determination of appropriate action, either in terms of negotiating between competing values of fundamentally different types (such as quantitative and qualitative values) or between competing values of similar types. In part, this is understandable as the result of the refutation of prescriptive methods required to break the chains of means and ends value deferrals outlined earlier.

The perceived limitations of this current framework have given rise to a great deal of writing on environmental ethics.<sup>40</sup> The textual discourse of architecture, however, has generally shied away from any discussion of environmental ethics, likely due to the fact that most of these arguments typically offer no way forward through architecture or, with a slight shift in emphasis, may be interpreted as anti-anthropocentric arguments and thus anti-architecture arguments.<sup>41</sup> In the midst of these arguments, however, is one advanced by Anthony Weston, an American environmental philosopher, which suggests a significant role for architecture in the development of environmental ethics itself.

Having examined contemporary arguments for new environmental ethics and found them unsatisfactory, Weston shifted his consideration to the originary stages of past developments of those values currently entrenched in our society. Through his research, Weston discovered that at the early stages of the development of a new set of values "a great deal of exploration and metaphor is required, from which only later do the new ethical notions harden into analytic

<sup>39</sup> Consider, for example, environmental sciences, economics or even critical analysis itself.

<sup>40</sup> Philosophers and ethicists have sought to develop arguments (among others) for Deep Ecology [see Murray Bookchin, *Remaking Society: Pathways to a Green Future*, (Boston: South End Press, 1990)], Social Ecology [see John Dryzek, pp.155-158 *The Symbolic Earth: Discourse and the Environment*, (Lexington: University Press of Kentucky, 1996) pp.123-148]), animal rights [see Tom Regan *The Case for Animal Rights*, (Berkeley: University of California Press, 1983)], anti-speciesism [see James Rachels, "Morality Without the Idea that Humans are Special," *Created From Animals*, (Oxford: Oxford University Press, 1990), pp.336-342)], eco-feminism [see Connie Bullis, "Retalking Environmental Discourses from a Feminist Perspective: The Radical Potential of Ecofeminism," and Karen Warren, "The Power and Promise of Ecological Feminism," *Environmental Ethics*, vol. 12, 1990, pp.125-146], and for the intrinsic value of the non-human outside of any human use value [see Freya Mathews, "Value in Nature, and Meaning in Life," *The Ecological Self*, (London: Routledge, 1991), pp.142-163].

<sup>41</sup> For example, some writers have claimed to have transcended anthropocentrism in thought. Perhaps most notorious for espousing this position is Dave Forman, founder of Earthfirst!, who is also alleged to have said that "Phasing out the human race will solve every problem on earth, social and environmental."

categories,<sup>42</sup> and that “the process of co-evolving values and practices at originary stages is seldom a smooth process of progressively filling in and instantiating earlier outlines. Instead, we see a variety of fairly incompatible outlines coupled with a wide range of proto-practices.... all contributing to a kind of cultural working through of a new set of possibilities.”<sup>43</sup>

In a process akin to the development of scientific paradigms identified by Thomas Kuhn in *The Structure of Scientific Revolutions*,<sup>44</sup> the working through of a new set of values appears seamless in retrospect only because the values that become entrenched write the history of their development in such a way as to make them appear more necessary and univocal than they actually were. Weston illustrates this contention by outlining the development of individual rights, demonstrating that our current conception of human rights is not the result of the validation, application and acceptance of an abstract formulation, but is rather the result of an evolutionary process that, over time, encouraged the acceptance of new groups of individuals (slaves, serfs, women, children) as rights holders.

If we are at the originary stages of an environmental ethics (as the failures of our current recourse to means and ends justifications would seem to strongly suggest), and if we are to accept Weston’s findings on the originary stages of values, then two conclusions must be drawn. First, we must realize that we can currently have only the barest sense of what a valid environmental ethics will eventually turn out to be. Secondly, we are currently at a stage where exploration and metaphor are key.

In contrast to those arguments for environmental ethics that seek to close questions with answers, Weston’s approach strives to open up possibilities, to widen current perspectives and establish new connections. No practice is better suited to this task than architecture.

The primary importance of architecture in engaging environmental issues, therefore, does not lie in its current efforts to minimize our environmental footprint. The quantifiable environmental impacts of buildings are undoubtedly great. Of equal significance, however, is the capacity of buildings to challenge our preconceptions of what it means to exist in a certain place, and at a certain time. By reinforcing the quantifiable aspects of both buildings and the environment, a preponderance of recent architectural textual discourse would encourage us to accept the measurable aspects of things for the entirety of what is, and, perhaps more importantly, for what could be. In the age of the demise of the grand narratives, this strategy is ultimately folly. As Lyotard argued, of all concerns regarding legitimation in the postmodern age, what is required in place of our search for a fixed single solution is differential, imaginative and paralogical activity that points out our presuppositions, summons us to propose alternatives, and that ultimately finds its own legitimation in the new conceptions that it generates. Herein lies the radical potential of architecture.

Through architecture, past and current understandings of the relationships between the human realm and all other realms can be articulated and explored for new relations and possibilities inherent within them. Through this exploration, new potentialities of doing, saying and making can be encouraged that both reveal and challenge the trajectories we have built into the decisions we make today by means of the decisions we have made in the past. Further, by conceiving of sustainable development as a site of discourse coalitions, we can begin to explore architecture’s unique ability to facilitate the negotiation of the contested understandings of our own values, and of what may be deemed appropriate forms of engagement with the environment.

As increasingly global environmental problems reinforce perceptions of the individual’s powerlessness, architects are thus afforded a form of agency at the most immediate of levels – that of apprehension.

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<sup>42</sup> Anthony Weston, “Before Environmental Ethics,” *Environmental Pragmatism*, ed’s Andrew Light and Eric Katz, (New York: Routledge, 1996), p.147.

<sup>43</sup> Weston, p.148.

<sup>44</sup> See T.S Kuhn. *The Structure of Scientific Revolutions*, (Chicago: University of Chicago Press, 1962), specifically chapter IX.

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