

For more than a decade, an epic battle has been playing out between rival forest certification systems. In the U.S., there are two principal competitors: the Forest Stewardship Council (FSC), which enjoys the support of many well-known environmental groups and exclusive recognition by Cascadia Green Building Council's Living Building Challenge; and the Sustainable Forestry Initiative (SFI), whose origins lie in the major U.S. timber industry trade association, the American Forest & Paper Association, and whose supporters and certificate-holders include industry giants like Weyerhaeuser. The rivalry between FSC and SFI has intensified since 2006 when the U.S. Green Building Council initiated a process for revising its Certified Wood Credit, which, if ratified by USGBC members, would change it from an FSC-only credit to one that will be governed by a USGBC "forest certification benchmark" – a set of metrics by which USGBC will judge which forest certification systems are worthy of LEED recognition.

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The benchmark development process has been a lightning rod for intensive lobbying by the two opposing "camps" that back FSC and SFI: activists in the environmental community and the green building movement on the one hand, and big timber and its trade associations and allies on the other. The battle reached a fever pitch in the fall of 2009 as strikes and counterstrikes were launched by both sides. The environmental group ForestEthics filed complaints with the Federal Trade Commission (FTC) accusing SFI of deceptive claims (greenwashing) and with the Internal Revenue Service accusing them of operating a bogus charity. A month later, a coalition led by a number of large timber companies, including Weyerhaeuser, filed a counter-complaint with the FTC against FSC and USGBC, alleging deception and collusion (see recent articles in the New York Times and Architecture Week).

On the surface, this controversy centers on competing standards, the technical details of which are bewildering (and boring) to all but the most pinny-headed policy wonks. However, penetrate beneath the veneer of jargon and acronyms and you will find that what is really at the heart of the fight are two fundamentally different approaches to timber production and forest management. And Cascadia lies at the very epicenter of the conflict, for nowhere are the differences between the two models more striking than in the prime timber-producing lands that lie between the Cascades and the Pacific.

INDUSTRIAL FORESTRY OR ECOFORESTRY

The dominant model for timber production in Cascadia is familiar to all who dwell in the region because it is everywhere around us. Often referred to as industrial forestry because of its scale and intensity, the model centers on clearcutting – frequently up to the size limits permitted by law – and the replanting and growing of monocultures of commercial tree species. West of the Cascades, much of the emphasis is on Douglas fir.

Many recoil from large-scale clearcutting because, to most people outside of the forest products industry, it's ugly. A recent clearcut looks like the scene of ecological massacre: the acres of stumps gape upward, the soil is torn up, and there is a lot of trashy-looking woody debris around. But, as industry advocates point out, aesthetics are not a reliable barometer of environmental impact or ecological health. After all, most people do not react negatively to bucolic agricultural scenes that, nevertheless, may represent a monoculture that has been established at the expense of native forest.

The more serious effects of industrial forestry may be the less visible impacts that accumulate over time: the gradual loss of natural soil fertility; soil erosion and the sedimentation of fish-bearing streams; the accumulation in soil and water of the chemical remnants of herbicides used to suppress plants that compete with commercial plantings; the decline of populations of wildlife that rely on extensive areas of complex and mature forest that industrial forestry tends to fragment or eliminate.

Sometimes the devastation wrought by industrial forestry is more dramatic, as in the infamous landslides and flooding that occurred in Washington state in December 2008 and that many believe were exacerbated by widespread logging by Weyerhaeuser on steep and unstable slopes. But the true environmental effects of extensive clearcutting and tree farming may not be known or felt for many generations to come.

Many believe that the prevalent model of industrial forestry practiced in Cascadia is not ecologically sustainable, and progressive forest land owners and foresters, folks in the environmental community, and others have been working for years to advance more environmentally and socially responsible alternatives to the industrial forestry paradigm. I'll use the term "ecoforestry" as shorthand for this forestry counter-culture, which is really a diverse patchwork of alternative practices and initiatives rather than a monolithic "model."

The ecoforestry approach is a mirror image of industrial forestry in many important respects:

THE COST FACTOR

The great hurdle that ecoforestry practitioners in Cascadia face is market acceptance of the cost of their products. The products of ecoforestry cost more than the products of industrial forestry for several reasons:

- The direct costs of practicing ecoforestry can be higher. For instance, it can cost more to remove vegetation that competes with the growth of desired species mechanically or manually instead of using heavy applications of herbicides. Or the cumulative costs of relatively frequent entries into a selectivelymanaged stand can exceed those of a single entry every 50 years when all trees in a stand are removed.
- The bulk of the profits of ecoforestry may be deferred into the future. One approach to ecoforestry relies on the removal of about one-third of the timber volume in



The long and the short of the matter is that forest conservation depends in part on intelligent consumption, as well as intelligent production of lumber.

— Aldo Leopold, 1928, "The Home Builder Conserves"

(Flader & Caldecott, 1991)

| INDUSTRIAL FORESTRY | ECOFORESTRY |
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| Primary focus is on generating profits by maximizing production of commercial timber while minimizing associated costs. | Primary focus is on maintaining, restoring or improving forest ecosystem integrity. Although short-term profit is rarely maximized, can produce steady and growing income and profit over time. |
| Emphasizes near-term economic value. Secondary consideration is given to other ecosystem assets that may have a constraining effect on timber production (which is not to say they are not considered at all, but they are assigned a subordinate place in management objectives). | Emphasizes long-term economic, social and ecological value. Timber is essentially a by-product of ecosystem management. |
| Short-rotation even-age management (e.g. clearcutting and replanting on a 40- or 50-year cycle) | Encompasses a range of silvicultural regimes, including uneven-age management (e.g. singletree selection) and ecologically-appropriate evenage management (e.g. clearcutting whose scale and distribution is designed to emulate natural disturbances such as fire) |
| Tree farms over natural forests | Natural forests over tree farms |
| Reduction and fragmentation of native forests, loss of habitat for old-growth dependent species | Protection and (theoretically!) gradual expansion of native forests |
| Relatively heavy reliance on chemical fertilizers and herbicides | Relatively light reliance on chemical inputs, avoidance of certain (legal) herbicides |
| Steep-slope logging, minimum streamside buffers, heavy impacts on soil erosion, water quality and fisheries | Conservation of soil and water quality |

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a stand on each entry, targeting the poorest quality and least valuable timber. This has the effect of improving the quality of the standing timber over time. As the stand matures, the remaining trees will eventually put on large volumes of high-quality wood, theoretically yielding increasingly healthy profits while enhancing social and environmental values.

- The ecoforestry industry is relatively small and fragmented, and there are gaps in the distribution chain. Too often, logs and finished products are trucked longer-than-normal distances because mills and distributors committed to ecoforestry and FSC are relatively few and far between. The lack of a large land base that is managed to ecoforestry standards, and large manufacturers and concentration yards that are committed to making ecoforestry products and getting them to market, means that the emerging ecoforestry industry is well below the threshold of economies of scale achieved by the industrial forest products companies.
- Perhaps most important, the chasm that separates ecoforestry and legal industrial forestry in the Cascadia region is as great or greater than in any other part of the country. In the predominantly hardwood forests of the East, selective felling and uneven-age management is often the norm rather than the exception. In California, the state forestry regulations are more stringent than any other state in the U.S., which sets the "floor" of industry practice relatively high and closer to an ecoforestry standard. But in the Pacific Northwest (and certain other parts of the country as well, such as in Maine and much of the Southeast), intensive and extensive even-age, industrial forestry is the standard approach. This means that, in Cascadia, the underlying cost and profit structure of ecoforestry and industrial forestry are far apart, which translates into significant differences in the cost of the products that derive from them (largely construction materials like lumber and plywood).

For all of these reasons, the price of FSC-certified Douglas fir framing lumber, CDX plywood, engineered wood products and other regional products can be significantly higher than their SFI-certified or noncertified counterparts. According to the best available information, depending on factors like advance planning, quantity, timing and other details, the premium for FSC over non-FSC products originating from the Cascadia region generally ranges from 10 to 35%. And, according to one ecoforestry practitioner, his costs for growing a log are 30 to 35% higher than for industrial producers.



THE FUTURE LIES IN THE HANDS OF THE GREEN BUILDING MOVEMENT

Ecoforestry in Cascadia will only grow and, perhaps at some point in the future, supplant the industrial forestry paradigm if the market supports it. Industrial forest land owners have a fiduciary responsibility to their shareholders to maximize profit. This all but forces them to manage their forest lands to the lowest common denominator of what state and provincial law permits.

Add to this that decades of overharvesting and abuse of National Forests led to the dramatic curtailing of harvest levels on federal lands under President Clinton, and the pressure on industrial private land owners to prioritize maximum timber yields and profits on their forest lands – and to subordinate long-term impacts to the health of soil, water, recreational values, timber quality and community benefits – has never been greater. Cascadia cannot look to the timber industry to reform itself; instead, the committed green building professionals of Cascadia must drive the market transformation of the mainstream timber industry in the Pacific Northwest toward greater sustainability.

Individual homeowners and consumers are probably not in a position to drive this market transformation because their significant purchases of forest products are relatively infrequent. The same consumer that is willing to pay a hefty premium for organic produce when buying it one grocery bag at a time may well balk at paying the premium for FSC-certified construction materials for a new home or addition.

One would hope that the same is not true for green developers and homebuilders who build project after project; for green architects and designers who specify materials; and for the green builders who buy them. The Living Building Challenge takes a huge step in the right



direction through its Responsible Industry prerequisite, which requires that all wood used in Living Buildings be FSC-certified (or salvaged).¹ However, Living Buildings alone are probably not enough to tip the scales in favor of ecoforestry in our region.

The greatest challenge lies in the economics and incentives of standard practice when it comes to procuring wood for construction. Owners and developers understandably want to get their projects built as inexpensively as possible, and place pressure on contractors to come in with the lowest bid. Contractors in turn often make a considerable part of their profit by bidding materials at one price and then shopping the market to find materials at a lower price. All of this amounts to a race to the bottom when it comes to forestry and forest products – only the products of industrial forestry can prevail if nothing changes in this scenario.

The fact is that we will either pay for the true costs of ecoforestry upfront, or we will pay for the direct and indirect costs of industrial forestry down the line, in the form of depleted soil, sediment-choked streams, collapsing fisheries, increased landslides and flooding, and the boom

[1] The forthcoming LBC Users Guide contains up-to-date strategies and resources for specifying and procuring FSC-certified wood.

and bust of local economies at the mercy of markets for low-quality commodities. We can invest in the stewardship of our natural capital today, or we can drive down that capital and diminish the prospects of our progeny.

It is up to leaders in the green building movement to educate their clients and hold the line when it comes to specifying and procuring the products of ecoforestry. During a session at the last Living Future conference, family forest landowner and ecoforestry practitioner Peter Hayes showed a series of slides depicting the landscape-level clearcuts with which we are all familiar. With each slide, a speech bubble popped up with the rhetorical question that many of us ask when confronted with such scenes: "How could they do that?" At the end of the series, Peter posed a challenge to the audience: "The more important question," he suggested, "is to ask, 'How could they not do that?" The answer to this question lies in the hands of the green builders of Cascadia.



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