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BOOKS: ENERGY

Working Towards a Sustainable Future

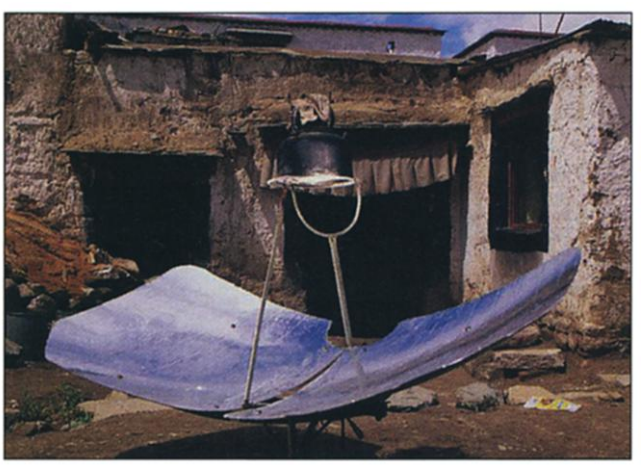
Walt Patterson

In 1985, four scientists from four continents—José Goldemberg of Brazil, Thomas Johansson of Sweden, Amulya Reddy of India, and Robert Williams of the United States—published a paper that advocated a fresh approach to energy policies, "An End-Use Oriented Global Energy Strategy" (*1*). The authors argued that such policies should not focus narrowly on fuel supplies and prices. Instead, policy-makers should begin by asking why humans use energy and how. They should also explicitly address global issues that interact with energy, including poverty and development, nuclear weapons proliferation, and climate change.

At the time, the authors' approach put them at odds with most of their colleagues, not to mention most organizations analyzing energy policy for governments and companies—groups such as the International Institute for Applied Systems Analysis and the World Energy Council. Nevertheless, the four continued their intercontinental collaboration and developed their thesis into the landmark 1987 book *Energy for a Sustainable World* (*2*). In subsequent years, they teamed up in various combinations to analyze key subsectors of energy policy from the same perspective. The fruits of their efforts appeared in many presentations and publications, among the most important of which were the major studies *Electricity* (*3*) and *Renewable Energy* (*4*). Throughout the 1990s their views steadily gained ground within the energy communities of countries both within and outside the Organization for Economic Cooperation and Development.

Now, at the start of the new millennium, comes the *World Energy Assessment*, prepared by a team with Goldemberg as chair and his three long-time colleagues on the editorial board. Unlike *Energy for a Sustainable World*, however, the new volume cannot be dismissed as the work of maverick visionaries. The assessment was initiated jointly by the United Nations Development Programme, the UN Department of Economic and Social Affairs, and the World Energy Council. The three groups co-published the final report as input to the 2001 session of the UN Commission on Sustainable Development, to the "Rio Plus Ten" meeting scheduled for 2002, "and beyond," as the foreword puts it.

World Energy Assessment
Energy and the Challenge of Sustainability
José Goldemberg, Ed.
United Nations Development Programme, United Nations Department of Economic and Social Affairs, and World Energy Council, New York, 2001. 528 pp. Paper, $65. ISBN 92-1-126126-0.



Diffusing technologies for concentrating energy. The use of solar cookers, such as this parabolic concentrating type that has been widely distributed in China, can reduce the environmental and health effects of collecting and burning biomass resources.

The report is the most comprehensive and far-reaching single volume on energy policy ever published. It is also one of the most readable, even for nonspecialists, although the sheer scope and depth of its content make the thought of reading it from cover to cover daunting. Fortunately, the volume begins with a concise "Overview" that highlights its key features and findings, and which has also been bound as a 40-page pamphlet.

Part I sets the tone for the study, placing energy in the context of major global issues including poverty, population, gender, urbanization, environment, health, and security. Part II considers world energy resources and the technologies, both currently available and prospective, to mobilize and use them. The longest part of the book, it is packed with fascinating details, which are accompanied by authoritative references. And, as it needs to be, the analysis is couched in the language of systems, not of individual fuels or technologies.

Part III asks "Are sustainable futures possible?" The authors examine six scenarios of energy system alternatives developed by the International Institute for Applied Systems Analysis and the World Energy Council (*5*). Three, including what might be called a "business as usual" scenario, fail to meet the study's criteria for sustainability. The other three succeed, using different assumptions of prevailing conditions. However, each sustainable scenario requires what the report calls "significant policy and behavioural changes in the next few decades." As the authors note, we now have a brief opportunity:

> The choice of the world's future energy systems may be wide open now. It will be a lot narrower by 2020...The achievement of sustainable development dictates a global perspective, a very long time horizon, and immediate policy measures that take into account the long lead times needed to change the system.

Accordingly, Part IV takes up the question "Where do we go from here?" The authors do not pull any punches. They realize that overcoming the economic, social, and political obstacles to sustainable development will take time. The long life cycles of some investments resist efforts to accelerate changes. Even after environmentally friendly technologies are developed, they must become affordable and available in the quantities and at the locations necessary for them to be effective. Inertia in human behavior and consumer choices will have to be overcome. Today's purchasers are reluctant to pay for benefits that will not be delivered until some uncertain time in the future. The transition to an energy framework that will support sustainable development will require widespread public support along with informed political leadership and policy-making.

The data and analyses in this volume demonstrate that changing energy systems offers a powerful instrument to shift cur-

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rent unsustainable development toward a sustainable future. The *World Energy Assessment* itself provides a powerful tool to persuade the public and policy-makers around the world that the changes are both feasible and desirable.

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BOOKS: POETRY

Images of Inhumanism

Christopher Cokinos

The American poet Robinson Jeffers once wrote that "[...] to feel/Greatly, and understand greatly, and express greatly, the natural/Beauty, is the sole business of poetry." This singularity of purpose ensured Jeffers a place outside the modernist mainstream of 20th-century poetry, with its interest in fragmented urban reality, and helped prompt readers to praise as well as to excoriate Jeffers in often shocking terms. Comparative mythologist Joseph Campbell considered Jeffers one of the greatest literary figures of all time; critic Yvor Winters wrote that if Jeffers really believed all he put in his poems then the California poet should kill himself. With the publication of this new, beautifully produced *Selected Poetry*, readers can reassess this work for themselves. Their reassessment must consider whether Jeffers's often stunning lyric-poems on nature may eventually outshine his long, plodding narratives of human excess and vanity. It is the Jeffers of the lyric poems that matters most, especially to those with ecological and scientific passions. And it is from this Jeffers that some of our most important contemporary eco-poets stem—poets such as Pattiann Rogers and W. S. Merwin.

Born in 1887, Jeffers did not find his poetic voice until the 1920s, when his work became wildly popular (he appeared on the cover of *Time* magazine in 1932). His long story-poems, rife with violence and sexuality, made his reputation as a major poet. But strident anti-war poetry turned his audience against him during and after the Second World War. The last volume Jeffers published in his lifetime, *Hungerfield* (1954), was little-appreciated. He died in 1962.

Much of the difficulty in assessing Jeffers—especially in relation to how his work bridges what C. P. Snow called the two cultures—is that his most devoted scholars have championed his many narrative poems, such as *Tamar* and *Cawdor*. A large portion of the editor Tim Hunt's otherwise excellent selection is given over to entire narratives or their excerpts, though one might argue that these overwrought and portentous poems are in fact Jeffers's worst. Indeed, the forced plots, arch dialogue, and one-dimensional characters so typical of Jeffers's narratives make him seem far less like a California Aeschylus or Homer (as some have thought of him) and far more like an unfortunate combination of balladeer Robert Service and angst-ridden filmmaker Ingmar Bergman. The narratives have their occasional moments of descriptive power, but it is in the lyric form that Jeffers best synthesizes his grand perspective on transhuman reality, his nature imagery, and his views on science.

The Selected Poetry of Robinson Jeffers
Tim Hunt, Ed.

Stanford University Press, Stanford, CA, 2001. 774 pp. $75. ISBN 0-8047-3890-4. Paper, $24.95. ISBN 0-8047-4108-5.

Although Jeffers's oft-repeated certitudes about the majesty of nature and the relative insignificance of humankind sometimes blunted his perceptions (he badly misunderstands Taoism, for example), it is this prophetic bent that lends to his shorter poems a deep rhetorical power rooted in clear observation. As Hunt, a professor of English at Washington State University, writes in his useful introduction, "...Jeffers sought to intensify perception and thereby deepen our awareness of and participation in the natural world." With a wide-ranging education that included the classics, foreign languages, forestry, and medicine, it is perhaps not surprising that Jeffers crystallized a kind of cosmic point-of-view with descriptions of local places and cultural meditations that often included material drawn from as well as critical of science.

Jeffers called his stance "inhumanism," which, for him, meant putting humanity in the widest possible frame of nonhuman nature and deep time. In his poem *Nova*, he writes, "[...] we know that the enormous invulnerable beauty of things/Is the face of God, to live gladly in its presence, and die without grief or fear knowing it survives us." In *Pelicans*, Jeffers praises the birds by connecting them in a wide network of things and passings: "And the wings torn with old storms remember/The cone that the oldest redwood dropped from, the tilting of continents,/The dinosaur's day, the lift of new sea-lines." For Jeffers, an understanding of language's rhythms and biological rhythms opens to a belief in historical and cosmological cycles. In the final scene of *The Tower Beyond Tragedy*, Jeffers has Orestes speak of these cycles in an almost Whitmanian diction and cadence: "[...] and I was the darkness/Outside the stars, I included them, they were a part of me. I was mankind also, a moving lichen/On the cheek of the round stone...they have not made words for it, to go behind things, beyond hours and ages,/And be all things in all time, in their returns and passages, in the motionless and timeless centre,/In the white of the fire [...]." Jeffers's praise of this grand beauty and endurance not infrequently led him to speak ill of humanity, like a prophet disappointed with his people. So although in one poem he calls us "moderately admirable," in another he says we are "a botched experiment that has run wild and ought to be stopped." He writes in *Love-Children*, "I'm never sorry to think that here's a planet/Will go on like this glen, perfectly whole and content, after mankind is scummed from the kettle./No ghost will walk under the latter starlight."

Such misanthropy does not necessarily detract from an appreciation of Jeffers's descriptions of the natural world, descriptions that often quietly present readers with moments of clear beauty, as in such poems as *Solstice*, *Flight of Swans*, and *Carmel Point*. However, Jeffers's penchant for telling us what to think about all this lovely reality can become tiresome and his images can sometimes be clichéd. Others have noted how Jeffers can indulge in local and unnecessary moments of personification—as in that lichen-covered rock having a "cheek." Still, this is a poet who notices how gulls hawk for insects turned up by the plow, how exotic species can affect ecological balance, and how the diameter of Antares can place our own world in humbling scale. In his great and often-anthologized lyric *The Purse-Seine*, Jeffers brings together net-gathered phosphorescent sardines, the lights of a city, and the glow of galaxies. His ability to notice connections across wide distances is remarkable. "We stayed the night in the pathless gorge of Ventana Creek, up the east fork," he writes in the opening stanza of *Oh*

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