

## Preface to the Second Edition

**W**HAT A DIFFERENCE THREE YEARS MAKE! How does our dream of literally building a better future grow? Are we moving more rapidly toward ecologically healthy cities, towns, and villages — or in the opposite direction?

I thought the original *Ecocities*, the first edition, was about as positive an approach to meeting the challenges of our times as one could find. A book dealing with a fast-changing subject needs updating, but what has rather suddenly happened amounts to a more basic shift that calls for more than a few simple additions. Something profoundly disturbing is happening, coming at us from several directions at once, and, depending on the way we play it, the nature of our future as a species hangs in the balance. Suddenly everything is accelerating and a crisis of linked crises is getting close to the other side of the door. As positive as the ecocity vision is and as good as steps in that direction have been in many ways, there are growing threats against such a vision.

The first shock hit just as I completed the first edition of this book: the mind-boggling attacks of 9/11. Then followed, almost immediately, the invasion of Afghanistan and shortly thereafter that of Iraq. Could oil, without which our cities would grind to a halt, be involved?

Meantime, the consensus among climate scientists that the Earth was indeed warming became conspicuous beyond doubt when a planet's worth of people (minus a few in the White House) noticed that glaciers on every continent and mountain range were shrinking and disappearing, when a heat wave killed 35,000 people in Europe in the summer of 2003, and when this writer, for one, climbed up Mount Blanc in the Alps to see for himself and — yes, ladies and gentlemen, the glaciers there are melting away for sure. You have my word. I've been there. Checked it out. Took pictures.

Something else has been creeping up on us for years, noticed merely by those who pay attention to such things, something which

has only in the last year become known much more broadly, clustered around the phenomenon embracing the whole Earth called “peak oil.” That’s the situation in which oil hits peak production and then, as time goes by, inevitably declines — forever. It’s a serious concern when the resource that begins declining is the one that holds our cities’ transportation systems together, heats and cools our buildings, provides fertilizers, insecticides, herbicides, and tractor fuel for our food production, makes fibers for our clothes and plastics for thousands of uses, and paves our streets and covers the roofs of our homes and workplaces with asphalt shingles and roofing tar. Transportation, indoor climate, food, clothing, shelter — practically everything depends on oil.

Oil is a finite resource, so there is no debate that this crucial commodity will peak and then decline — the only debate is as to exactly when we can expect it to do so. The members of the Association for the Study of Peak Oil and the sudden swarm of authors writing books on peak oil in the last two years are largely retired oil geologists and associated scientists, people no longer on the payrolls of the oil companies. All of them are expecting peak oil to arrive long before alternatives are sufficiently available to prevent a major economic, human, and ecological crisis.

More to the point, especially regarding neglected solar and wind energy, which together constitute barely one thousandth of

the energy used by Americans, the debate is about whether we will have anything remotely as convenient and powerful in place to continue propping up our gigantic human population and enormous levels of consumption when the supply of oil begins sliding away. Quantity will go down and price will go up — forever.

What that means in terms of the economy, the ability to make products of raw resources, and the continuation of life systems on the planet as a whole became suddenly a headline concern. *National Geographic* stepped right into the middle of these controversial issues in 2004 with a cover article on the end of oil and another on climate change — and its editor said he knew they were going to create controversy and lose some subscribers. But he felt compelled to tackle these most important survival issues as a matter of the needs of the times. “I can live with some cancelled subscriptions,” said Bill Allen. “I’d have a harder time looking at myself in the mirror if I didn’t bring you the biggest story in geography today.”<sup>1</sup>

“Forever” is one of those big words that casts it ominous shadow when we notice it lurking behind other words, like “extinction.” That’s right — that an animal or plant species is not going to become rare or confined to some distant place you and I might visit someday. It will be gone from the planet, and nothing will ever be able to bring it back. Your kids can skip

the idea of seeing it, learning from it, enjoying it, maybe eating it, or utilizing its potential products or healing properties — nothing. In addition, if that species was a major player in its ecological, the environment it was part of will, because of its absence, also be gone forever.

The truly disturbing thing about peak oil is that it appears likely to come much sooner than the oil companies say they expect. They have been exaggerating their reserves to maintain investor confidence, which means they are claiming we have more time to solve the problem than is likely to actually be available. When the cheap energy just isn't there anymore, what might that imply? In this book I am promoting the extremely low-energy city, a redesigned city that can function on very little energy. But the hour is getting late. It will take energy to build such a city, and, I have begun realizing in the last three years, the investment has not been made.

Here's another sobering thought. Since finishing the first edition of *Ecocities* I have been hosted in North America, Asia, Africa, and Europe by dozens of organizations full of caring people. I have been to China four times to witness the world's largest experiment in city building first hand, and I can tell you precious little progress on ecocity development has transpired anywhere while enormous "progress" has been made on behalf of the car/sprawl/freeway/cheap energy way of building. Automobile factories are being

rapidly constructed along with thousands of miles of highway in China while Americans are buying ever more anachronistically, bizarrely, *insanely* large cars. The world is becoming more dependent on cheap fuel, not less. *Much* more, every year, and just when we should know better.

Regarding cars, only in the last few months have I noticed the obvious, which seems to have escaped practically everyone else as well: only one out of ten of us drives one. There are more than 600 million cars on the planet and 6,500 million people. That means nine out of ten are disenfranchised from the dream of mobility — making it an impossible dream and a vast social injustice. In fact, since those one out of ten who drive are causing most of the planet-wide catastrophes of the day and, via climate change and extinctions, disasters to last millions of years, the dream turns into a genuine nightmare come true. One could find nothing more destructive of human opportunity and environmental health. Period. The energy-efficient car, you begin to realize as you look such numbers in the eye and remember that the supply of cheap energy is ending starting right now, is a delusional attempt at a remedy. The Prius — the energy-conserving automotive darling of many American environmentalists who are hanging on to the hope that they can continue driving forever — will not save us. It will only convince a few well-meaning people

to delay longer finally dealing with reshaping our built environment — cities, towns, and villages — for human beings, not cars. But there is no time to delay solutions; time is running out. Forever starts today.

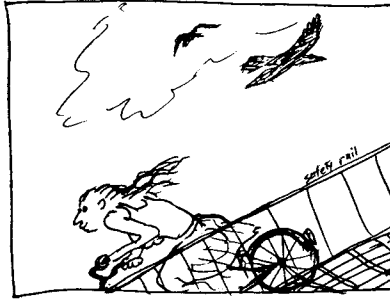
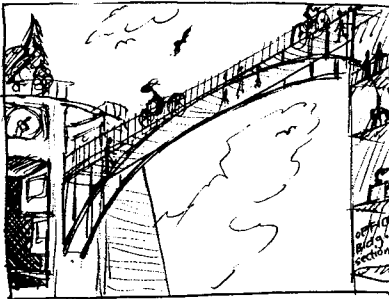
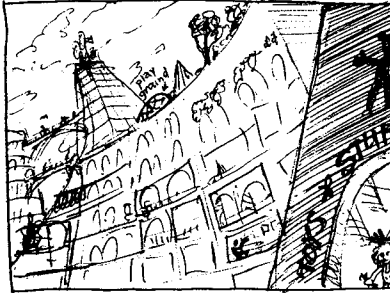
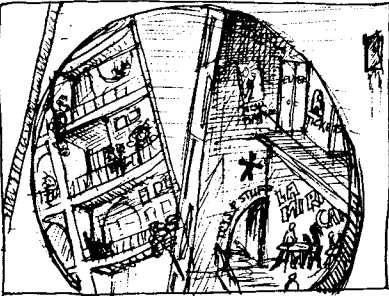
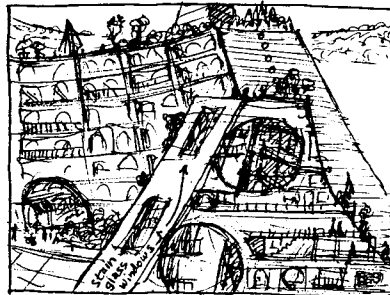
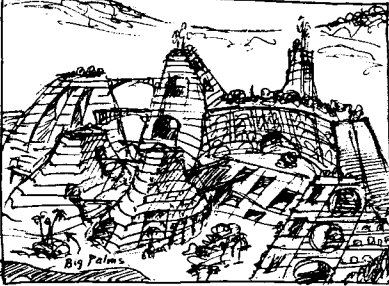
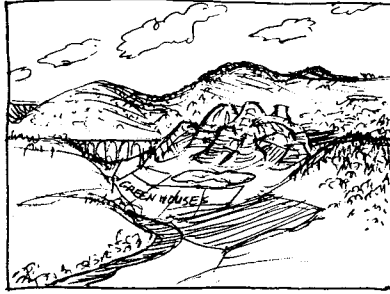
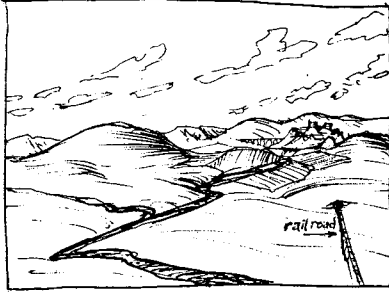
And not just ecologically speaking, because the finality of that “forever — nevermore” concept is popping up in the cultural context as well. Jane Jacobs writes *Dark Age Ahead*<sup>1</sup>, chronicling the incivility of a general and growing malaise seemingly unrelated to ecology, with failing families and schools credentialing instead of teaching, subverting cultural contributions instead of encouraging them. The worst thing about cultures slipping into their “dark ages,” she says, is that they forget and the contributions and lessons of that culture disappear utterly. Jared Diamond writes *Collapse*<sup>2</sup>, comparing ancient and recent collapses from the central Pacific islands to the Soviet Union, describing the interrelated causes of collapse and the means by which some cultures survive, which, when they do survive, always include a strong element of respect for ecology and resources — otherwise they are not on the list of survivors.

Societies develop cultural blind spots to ecological realities, spots so blind as to baffle people from outside of the culture looking in. How could the Easter Islanders in the most remote corner of the ocean cut down their last tree and with it eliminate the fuel for their fires and the building materials for their houses on a cold, windy island? How could

they do that, thereby making boat building impossible and eliminating their main means to stay warm, cook, harvest food, and connect with the outside world? How could we be blind to something so gigantic and obvious as the sprawling city of cars with its direct impact on climate, war, and the “cutting down” of the last “tree” of finite oil? How could the people of the world’s most oil-addicted country have a President, a Vice President, and a Secretary of State who are all oil company executives and believe that conquering the second largest oil field in the world has nothing to do with oil? Oil, that’s the word that never passes government lips except in rare disclaimers that it has anything to do with anything. The people don’t want to see and the press shuts its eyes and closes its mouth, too. If Easter Islanders look insane to us on the outside, how about us? They could at least dream of replanting tree seeds, rescued by some wise elder or upstart genius appearing like magic among them in an ancient version of the “techno-fix.” But oil spawns no seeds.

Such cultural blind spots to ecological and resource realities destroy civilizations, with enormously negative impacts that are most unpleasant to contemplate. Collapse, whether faltering and episodic or a freefall into cannibalism, makes good reading regarding somebody else’s culture, but regarding our own?

Despite these dark words made necessary by the events of the last three years, this is a



Arcology zoom-through. My first eye-opening “ecocity” experience was meeting Paolo Soleri, who posited the more three-dimensional, car-free and ecologically healthy city, something like the Indian pueblos of the American Southwest, but updated to modern times. I tried various ways of visualizing these very tall, small-footprint cities, such as this 1970 drawing in which I imagined flying close by one of his cities.

book of many hopeful, practical and, I think you will agree, inspiring concepts and examples. It brims with tools for healthy change and lays out basic principles for ecological designs of cities, towns, and villages. You've no doubt already noticed the many illustrations attesting to the great potential we have before us. But it would be irresponsible to ignore the sudden arrival of bad news or, at least, news that should sound the alarm. We need a wake-up call. Maybe enough people to make a difference are beginning to hear it right now. Maybe that will make us ready — at long last — to think seriously about what we build and how we live in it.

In any case, our environmental awareness is rising (where it hasn't broken the Rapture or Jihad barrier among fundamentalist religions), and generally, major efforts at improvement are afoot. With the possible exception of overfishing and only partially restrained logging, we no longer hunt or harvest species to extermination. We've learned that much about maintaining our biological capital. But what we haven't noticed in the meantime is that something else has quietly raised its gigantically destructive head in the background like a dark cloud — and that 800-pound gorilla nobody is talking about, sitting on the couch over by the corner, is the city itself or, more particularly, the city in the form of sprawl, cars, asphalt, and cheap energy (but it won't be cheap for long). Well, we are the first true Whole Earth Civilization

(with a few pockets of energetic dissent), so it is only natural that there might appear a wholly new reality not recognized or faced by past civilizations. Because we face something new and unprecedented, we have some excuses for a slow wake up — though they are growing thinner every day.

It's coming back to me now, something that clarifies the parameters of this book's content; one of those important thoughts I heard a long time ago. In 1971 I interviewed scientist Aden Meinel, who had recently directed the construction of Kitt Peak National Astronomical Observatory. I went to Arizona to cover his solar energy story for *West Magazine*, the *Los Angeles Times*' Sunday magazine. One thing that stuck in my mind was his warning that we'd need to spend a fair fraction of our fossil fuel endowment putting into place a renewable energy system. We couldn't wait until oil became expensive. We'd need too much of it. His favorite solar "system" was something he liked to call a solar energy "farm," with reflectors to send light to a central boiler to generate steam and turn a turbine, then an electric generator. Another notion was to collect the heat of the sun under panels with big lenses that would magnify the sun's light, to heat to a very high temperature a liquid material like sodium, to pump that to the central plant, and then to produce electricity with the steam boiler, the turbine, and the generator. In any case, he said, we'd have to melt lots of glass and build

a massive infrastructure for the renewable energy system because we, not the geology of the Earth over the one hundred to two hundred million years it took to make the fossil fuels, would need to gather and concentrate the energy ourselves. That year, 1971, was coincidentally the same year oil production peaked in the United States, though I had no idea about it at the time.

It is now 35 years later — and no such investment in renewable energy has been made. That's not all. The physical infrastructure of cities, towns, and villages, designed to fit renewable energy systems, has also not been built. It's not even being planned, and only visualized in a few rare places such as this book. The ecocity, if dawning, is still way out over the horizon. We've waited so long I'm beginning to wonder if we will have enough

time to build a sustainable, much less a vitally healthy and inspiring civilization at all. But if we do, it will look a lot more like what's offered in this book than what you will see by looking around Yourtown today.

The last three years have been a splash of cold water in the face for me. I'm hoping this book will help wake us all up to not cutting our last tree and building very carefully something that will last. The three years since writing the first edition have emphasized to me just how rare and important the insights for a better future that you will find in these pages really are. Maybe ecocities will be our last — and best — chance.

Oakland, California  
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